RESOLUTION NO. 2024-146

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE ADOPTING THE MITIGATED NEGATIVE DECLARATION AND THE MITIGATION MONITORING AND REPORTING PROGRAM FOR THE LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK PROJECT (WTL019); AND AMENDING THE FISCAL YEAR 2024-25 BUDGET and 2024-2029 CAPITAL IMPROVEMENT PROGRAM AND APPROVING THE PROJECT

WHEREAS, the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019) (Project), will extend the Laguna Creek Trail between Lewis Stein Road and Bruceville Road along Big Horn Boulevard, provide trail gap closures between Bruceville Road and Mannington Street, and construct sidewalk gap closures on Bruceville Road between Sheldon Road and Big Horn Boulevard, and

WHEREAS, the City prepared an Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to the California Environmental Quality Act (CEQA), attached hereto as Exhibit A, evaluating the potential environmental effects of the Project; and

WHEREAS, the Project is in compliance with all applicable state, federal and local codes and regulations; and

WHEREAS, the City determined that the mitigation measures identified in the IS/MND would reduce environmental impacts to a less than significant level; and

WHEREAS, based on staff's review of the Project, no special circumstances exist that would create a reasonable possibility that this Project will have a significant effect on the environment beyond what was analyzed in the IS/MND prepared for the Project and disclosed; and

WHEREAS, a Mitigation and Monitoring Reporting Program (MMRP) has been prepared for the preferred alternative in accordance with CEQA, attached hereto as Exhibit B, which is designed to ensure compliance with the identified mitigation measures during project implementation and operation; and

WHEREAS, the City distributed the Notice of Intent to Adopt the Mitigated Negative Declaration on April 15, 2024. It was posted at the Sacramento County Clerk's office, distributed through State Clearinghouse and at the City offices, pursuant to Section 15072 of Chapter 3 of Title 14 of the California Code of Regulations (State CEQA Guidelines). A 30-day review and comment period was opened on April 15, 2024 and closed on May 15, 2024. The Mitigated Negative Declaration was made available to the public during this review period; and

WHEREAS, the City received three written comment letters within the 30-day public review period and responded to those comments in the project staff report; and

WHEREAS, the City has considered the comments received during the public review period, and they do not alter the conclusions in the IS/MND; and

WHEREAS, the City Council has considered the written and oral comments on the proposed project and the Mitigated Negative Declaration; and

WHEREAS, the City of Elk Grove, Office of the City Clerk, located at 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based; and

WHEREAS, the City Council has reviewed the Initial Study, the Mitigated Negative Declaration, and the Mitigation Monitoring and Reporting Program and find that these documents reflect their independent judgment; and

WHEREAS, the City has requested $500,000 in Federal Grant Funds through the Community Project Funding/Congressionally Directed Spending Program Cycle 3 for 2024.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby adopts the Mitigated Negative Declaration and the Mitigation and Monitoring Reporting Program, attached hereto as Exhibits A and B, respectively, and incorporated herein by reference for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019) based on the following findings:

1) On the basis of the whole record, there is no substantial evidence that the Project as designed and mitigated will have a significant effect on the environment. A Mitigated Negative Declaration has been prepared and completed in accordance with CEQA. The Mitigated Negative Declaration reflects the independent judgment and analysis of the City.

2) Pursuant to Public Resources Code, Section 21081 and CEQA Guidelines, Section 15091, all the proposed mitigation measures described in the Mitigated Negative Declaration are feasible, and therefore shall become binding upon the City.

3) To the extent that these findings conclude that various proposed mitigation measures outlined in the Mitigated Negative Declaration are feasible and have not been modified, superseded or withdrawn, the City Council hereby binds itself and their assigns and successors in interest to implement those measures. These findings are not merely informational but constitute a binding set of obligations that will come into effect when the City constructs the Project.

Evidence: Pursuant to CEQA and the CEQA guidelines, staff prepared an Initial Study (SCH# 2024040605) for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project and mitigation measures have been developed that will reduce potential environmental impacts to less than significant levels. The Initial Study identified potentially significant adverse effects in the areas of air quality, biological resources, cultural resources, geology/soils, hazards, and hazardous materials, land use and planning, noise, recreation, and tribal cultural resources; mitigation measures that avoid or mitigate the potentially significant effects to a point where no significant effects would occur were identified in the Initial Study and staff prepared a Mitigated Negative Declaration. Preparation of a Mitigation and Monitoring Reporting Program (MMRP) is

required in accordance with the City of Elk Grove regulations and is designed to ensure compliance during project implementation. The City distributed the Notice of Intent to Adopt the Mitigated Negative Declaration on April 15, 2024. It was posted at the Sacramento County Clerk's office, distributed through State Clearinghouse and at the City offices, pursuant to Section 15072 of Chapter 3 of Title 14 of the California Code of Regulations (State CEQA Guidelines). A 30-day review and comment period was opened on April 15, 2024 and closed on May 15, 2024. The Mitigated Negative Declaration was made available to the public during this review period. The City received three written comment letters within the 30-day public review period. These comments do not alter the conclusions of the Initial Study/Mitigated Negative Declaration.

On the basis of the Mitigated Negative Declaration, environmental analysis, and the whole record, there is no substantial evidence that the Project will have a significant adverse impact on the environment above those addressed within the adopted Mitigated Negative Declaration. A MMRP, which is incorporated herein by this reference, has been prepared to ensure compliance during project implementation. The City of Elk Grove, Public Works Department, located at 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based.

BE IT FURTHER RESOLVED that the City Council hereby approves the Project; and amends the Fiscal Year 2024-25 Budget and 2024-2029 Capital Improvement Program by and adding $500,000 in Federal Capital Grant Funds (Fund 351) to the Project.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 28th day of August 2024

BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS,
CITY ATTORNEY

EXHIBIT A

Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019)

Federal Project No: CML-5479 (053)

Final Initial Study/Mitigated Negative Declaration

Volume I

Prepared for:
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758

Prepared by:
HELIX Environmental Planning, Inc.
1180 Iron Point Road
Folsom, CA 95630

June 2024 | HELIX Project #02722.00001.001

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LIST OF ATTACHMENTS

A Comment Letters

1.0 INTRODUCTION TO THE FINAL IS/MND

1.1 Final IS/MND Contents

This document constitutes the Final Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019) in Elk Grove, California, which consists of the following sections:

Section 1.0, Introduction to the Final IS/MND: This section provides a description of the Final IS/MND contents and process.

Section 2.0, Responses to Comments on the Draft IS/MND: This section provides the responses to comment letters on the Draft IS/MND that were received during a 30-day public review from April 15, 2024 to May 15, 2024. Three comment letters were received on the Draft IS/MND from the following agencies:

- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- Sacramento Municipal Utility District

Section 3.0, Errata: This section documents specific text changes to the Draft IS/MND that are to be considered as part of the Final IS/MND. This includes clarifications/corrections to the information in the Draft IS/MND in response to comments contained in Section 2.0. Minor typographical corrections and formatting revisions are not shown in the Errata section.

Comment letters received during the public comment period are included in Appendix A of Volume I, and the Mitigation Monitoring and Reporting Program for this Project is included in Attachment A of Volume II of this Final IS/MND. The full revised IS/MND and its technical appendices have been reproduced and are contained in the Volume II of this Final IS/MND. Please note that some of these documents have been modified since public circulation of the Draft IS/MND in response to the comments on the draft document. All substantive changes to the Draft IS/MND are reflected in Section 3.0, Errata.

1.2 IS/MND Process

The public review period began on April 15, 2024 and concluded on May 15, 2024. All parties had at least 30 days to review the Draft IS/MND as required under State CEQA Guidelines Section 15073. The Draft IS/MND was circulated to responsible agencies and other public agencies having legal jurisdiction over the environment affected by the proposed Project. The Draft IS/MND was sent to the State Clearinghouse (SCH No. 2024040605), along with the required Notice of Completion (NOC) and Environmental Document Transmittal form. Simultaneously, a notice of intent and notice of availability of the Draft IS/MND was posted by the lead agency on the City of Elk Grove's website prior to circulation, and approximately 1,200 notices were mailed to neighboring residences by April 12, 2024.

The City of Elk Grove will decide whether to approve the Final IS/MND as complete and in compliance with CEQA and State CEQA Guidelines and must consider it, along with the comments received, in

approving or denying the proposed Project. In the final review of the proposed Project, environmental, economic, and social factors will be considered to determine the most appropriate course of action. After consideration of the Final IS/MND, the City may decide to approve the Project. If the Project is approved, a Notice of Determination (NOD) will be filed with the Sacramento County Clerk.

2.0 RESPONSES TO COMMENTS

During the public review periods commencing April 15, 2024 and ending May 15, 2024, three comment letters were received on the Draft IS/MND from the following agencies:

A. California Department of Fish and Wildlife

B. Central Valley Regional Water Quality Control Board

C. Sacramento Municipal Utility District

Provided below is a summary of each comment letter that was received during the public review period. The comment letters are listed and responded to in alphabetical order and the original comment letters are provided in Appendix A of Volume I of this Final IS/MND.

A. California Department of Fish and Wildlife

The Lead Agency received an email from the California Department of Fish and Wildlife (CDFW) on May 10, 2024. The email provided comments and recommendations below to assist the City of Elk Grove in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Comment 1: BIOL-24 White-tailed Kite

The draft IS/MND states that preconstruction surveys for the white-tailed kite (WTKI) will be conducted in Project site 14 days and 3 days prior to the start of Project activities. The draft IS/MND further states that if any active white-tailed kite nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall establish 250-foot buffer zone around the nests. However, no other details were provided. CDFW deems the survey information insufficient because no survey distance from the Project site was provided and the no disturbance buffer distance will likely not be sufficient for avoiding take of WTKI, a California Fully Protected Species. CDFW included recommendations to improve the measures in the IS/MND to avoid potential take of WTKI.

Response: Mitigation measures in the Final IS/MND have been revised in accordance with CDFW's recommendations.

Comment 2: BIOL-27 Nesting Bird and Raptor Survey and Buffer

The draft MND states that avoidance and minimization measures for both non-listed migratory birds and raptors with fourteen (14) days survey windows before construction, 300 feet no disturbance buffer for raptors, and 75 feet no disturbance buffer for migratory birds. No survey distance from the Project site was provided. CDFW recommends more robust measures for

migratory birds and raptors to ensure impacts can be mitigated to a level of less than significant. CDFW recommends larger survey buffers of 500 feet for migratory birds and 0.5 mile for raptors to fully capture all potential nesting activity. CDFW also recommends no more than seven (7) days before construction commences due to some bird species being able to build a nest within that time window. In addition, CDFW recommends that the no disturbance buffers for the migratory birds and raptors are determined in consultation with a qualified biologist and such buffers shall be of sufficient to avoid take. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance.

Response: Mitigation measures in the Final IS/MND have been revised in accordance with CDFW's recommendations.

B. Central Valley Regional Water Quality Control Board

The Lead Agency received a form letter from the Central Valley Regional Water Quality Control Board (RWQCB) which provided general comments regarding the RWQCB's regulatory jurisdiction over the quality of surface and groundwaters of the state.

Response: The ISMND has analyzed potential impacts to both surface and groundwater which may occur because of project implementation, including potential temporary impacts during construction. Please see Section 4.4, Biological Resources, and Section 4.10, Hydrology and Water Quality, for more information.

The City will comply with all applicable requirements/regulations listed in the letter for the Project, including, but not limited to obtaining the following, as listed in Section 2.7:

- Construction Storm Water General Permit/National Pollutant Discharge Elimination System (NPDES) Permit
- Clean Water Act Section 404 Permit
- Clean Water Act Section 401 Water Quality Certification or Waste Discharge Requirement

The conditions requiring a need to obtain a Dewatering Permit or Limited Threat General NPDES Permit are not anticipated; however, these will be obtained if final design of the Project determines these permits are applicable.

C. Sacramento Municipal Utility District

The Lead Agency received a letter from the Sacramento Municipal Utility District (SMUD) on May 9, 2024, which provided general comments regarding SMUD's existing electrical infrastructure near the Project site, as well as information about transmission encroachment. SMUD requests that the Project will acknowledge any impacts related to the following:

- Overhead and/or underground transmission and distribution line easements
- Utility line routing
- Electrical load needs/requirements

- Energy efficiency
- Climate change
- Cumulative impacts
- Potential need to relocate SMUD infrastructure

Response: Information about existing SMUD infrastructure can be found in Section 4.19, Utilities and Service Systems. Additional information has been incorporated into Chapter 3.0, Project Description, and in Section 3.8.5, Utilities, in Volume II of the Final IS/MND. While there is an existing utility pole on the west side of Bruceville Road that would be relocated as part of the project, it would be relocated to another location either within the City's right-of-way or within a new utility easement. No other utility relocations are anticipated for the Project other than potentially adjusting existing utility lids to new grades.

The proposed Project would not feature any lighting and is not a high energy demand project. Unnecessary consumption of energy resources would be avoided through implementation of Sacramento Metropolitan Air Quality Management District's (SMAQMD's) Basic Construction Emission Control Practices and compliance with Caltrans Standard Specifications Section 14 and 14-9.02, as described in Section 3.8.6.2, Construction Protocols, of Volume II of this Final IS/MND.

As outlined in the City of Elk Grove's Climate Action Plan (CAP), future projects that the City determines are not exempt from CEQA, such as the Project, can achieve streamlining pursuant to the provisions of Section 15183.5 by including all applicable greenhouse gas reduction measures in the CAP in the project designs and/or as mitigation measures in the environmental document, thus demonstrating that the Project would have a cumulatively less than significant impact on the environment. As outlined in Section 4.8 of Volume II, Greenhouse Gas Emissions, the Project would be consistent with all applicable CAP measures and would not have a significant impact on climate change.

Cumulative impacts are discussed in Section 4.21, Mandatory Findings of Significance, of Volume II of the Final IS/MND. Other than the aforementioned utility pole and potentially adjusting existing utility lids to new grades, there would be no need to relocate additional SMUD infrastructure.

3.0 ERRATA

This section documents specific text changes to the Draft IS/MND that are to be considered as part of the Final IS/MND. This includes clarifications/corrections to the information in the Draft IS/MND in response to comments contained in Section 2.0. Minor typographical corrections and formatting revisions are not shown in the Errata section. Also, the full revised IS/MND with appendices has been reproduced and is contained in Volume II.

Page 15

The following text from Section 4.19, Utilities and Service Systems (Pg. 97) was added to the Draft IS/MND Project Description in Section 3.8.5, Project Components:

The following Sacramento Municipal Utility District (SMUD) infrastructure is currently existing in and near the project site:

- Underground 12kV facilities along Mannington Street within the footprint of project Segment 1.
- Overhead 12kV facilities along Big Horn Boulevard within the footprint of project Segment 1.
- Overhead 69kV and 12kV facilities along the west side of Bruceville Road, north of the bridge crossing, at the proposed trail alignment point.
- Infrastructure for future underground 12kV facilities within the footprint of project Segment 2.
- A utility pole on the west side of Bruceville Road (to be relocated as part of the Project).

Pages 52 - 54

Mitigation Measure BIO-24

If suitable nesting habitat or wintering habitat features are present for white-tailed kite on or within ¼-mile of the Project site, or if nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall conduct surveys within 0.25-mile of the Project area within 14 days and again within 3 calendar days prior to the start of Project activities during the nesting season (February 1 – August 31). Surveys shall be done during the appropriate time of day to maximize detectability and shall concentrate on suitable nesting structures for the species. If an active nest is discovered during the survey or during construction, a qualified biologist shall establish a minimum 0.25-mile no disturbance buffer around active nests to start until the nesting season has ended or until the qualified Biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Permittee shall halt any Project activities that could affect the foraging or feeding behavior of WTKI. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance. ~~establish a minimum ¼-mile buffer zone around active nests to start until the nesting season has ended or until the qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival.~~ The biologist will mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. The nest buffer should be assessed for effectiveness and may require increase or decrease in size depending on the birds' tolerance level to the disturbance. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.

Mitigation Measure BIO-27

If construction begins during the nesting season (February 15 through August 31), then a pre-construction nesting bird survey shall be conducted within 7~~14~~ calendar days prior to the commencement of construction activities and vegetation removal. If the pre-construction survey results in no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If active nests are located within or directly adjacent to the Project site then the following shall occur:

a. If any active nests are located, then a qualified biologist shall establish an appropriate species-specific buffer zone (generally a 500~~75~~-foot standard buffer for most songbirds, a 0.5-mile ~~300-foot~~ standard buffer for most raptors, and ~~up to~~ a buffer of 0.5-mile ~~1,320-2,640 feet~~ for

Swainson's hawk) around the nests. The buffer may need to be increased based on the birds' tolerance level to the disturbance; the qualified biologist will confirm whether or not the buffer is sufficient to avoid take/nest failure and will increase the buffer if needed. The qualified biologist shall mark the buffer zone with highly visible flagging or pin flags and maintain the buffer zone until all construction has been completed, until the end of the breeding season, or until the young have successfully fledged and/or the nest is no longer active. A qualified biologist will monitor active nests weekly during construction to evaluate potential nesting disturbance caused by construction activities. If establishing the typical buffer zone is impractical, then the qualified biologist may reduce the buffer depending on the species, and daily monitoring is also recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied or that it has been determined that nesting activity is not negatively affected by adjacent Project construction activities. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and the CDFW for their records. Monitoring of potential nesting activities in the Project site should continue, at a minimum, until the end of the avian nesting season (September 1). If a lapse in Project-related work of 7 calendar days or longer occurs, the qualified biologist shall complete another focused survey before Project activities can be reinitiated.

Pages 97 - 98

The following text was added to the impact analysis under question a) in Section 4.19, Utilities and Service Systems:

Utilities would be accommodated within the Project site and coordination with utility providers would take place during final design, prior to construction, and during construction. Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right-of-way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades. As a result, there would be a **less than significant impact** on wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities.

Appendix A

Comment Letters

City of Elk Grove
8401 Laguna Palms Way, Elk Grove, CA 95758
Phone: 916.627.3349
TTY/TDD 888.435.6092
elkgrovecity.org

Sign Up for Email Updates

From: Tran, Harvey@Wildlife <Harvey.Tran@Wildlife.ca.gov>
Sent: Friday, May 10, 2024 5:04 PM
To: Mohammad Sadiq <msadiq@elkgrovecity.org>
Cc: Wildlife R2 CEQA <R2CEQA@wildlife.ca.gov>; Wood, Dylan@Wildlife <Dylan.Wood@wildlife.ca.gov>; Sheya, Tanya@Wildlife <Tanya.Sheya@wildlife.ca.gov>; Kilgour, Morgan@Wildlife <Morgan.Kilgour@Wildlife.ca.gov>
Subject: SCH #2024040605 - Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project - 2024-0119-0000

You don't often get email from harvey.tran@wildlife.ca.gov. Learn why this is important

[EXTERNAL EMAIL]

Hi Mohammad Sadiq:

The California Department of Fish and Wildlife (CDFW) received and reviewed the draft Initial Study/Mitigated Negative Declaration (ISMND) from the City of Elk Grove for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (Project) pursuant the California Environmental Quality Act (CEQA) statute and guidelines.

CDFW ROLE
CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.) Similarly for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on Projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration agreement (LSAA) regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G.

Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY
This proposed Project is located approximately 0.5 mile west of State Route 99 (SR-99) and approximately 3 miles east of Interstate 5 in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, California. The Project would involve two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings. The primary trail extension is proposed from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby linking thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile). Due to high vehicular right-turn volumes, the proposed Project would also include a 300-foot-long vehicular right-turn lane from southbound Bruceville Road to westbound Big Horn Boulevard for added bicycle safety.

COMMENTS AND RECOMMENDATIONS
CDFW offers the comments and recommendations below to assist the city of Elk Grove in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW recommends the following items be addressed in the draft CEQA document:

Comment 1: BIOL-24 White-tailed Kite, pages 53-54
The draft MND states that preconstruction surveys for the white-tailed kite (WTKI) will be conducted in Project site 14 days and 3 days prior to the start of Project activities. The draft MND further states that if any active white-tailed kite nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall establish 250-foot buffer zone around the nests. However, no other details were provided. CDFW deems the survey information insufficient because no survey distance from the Project site was provided and the no disturbance buffer distance will likely not be sufficient for avoiding take of WTKI, a California Fully Protected Species.

To address this comment, CDFW recommends that the City revises the draft MND to include a more detailed measure for the WTKI which includes a survey range and a larger defined no disturbance buffer distance that will ensure full avoidance of take of the species. The additional measure should be incorporated into the appropriate ISMND section(s). An example measure is provided below:

"White-tailed Kite (WTKI) Survey and Buffer. If suitable nesting habitat or wintering habitat features are present for WTKI on or within 1/4-mile of the Project site, a qualified biologist shall conduct surveys within 1/4-mile of the Project area within 14 days and again within 3 calendar days prior to the start of Project activities during the nesting season (February 1 – August 31). Surveys shall be done during the appropriate time of day to maximize detectability and shall concentrate on suitable nesting structures for the species. If an active nest is discovered during the survey or during construction, Permittee shall

establish a minimum 1/4-mile no disturbance buffer around active nests to start until the nesting season has ended or until the qualified Biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Permittee shall halt any Project activities that could affect the foraging or feeding behavior of WTKI. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance. It is the Project proponent's responsibility to confirm the buffer is sufficient to avoid take/nest failure."

Comment 2: BIOL-27 Nesting Bird and Raptor Survey and Buffer, page 54
The draft MND states that avoidance and minimization measures for both non-listed migratory birds and raptors with fourteen (14) days survey windows before construction, 300 feet no disturbance buffer for raptors, and 75 feet no disturbance buffer for migratory birds. No survey distance from the Project site was provided. CDFW recommends more robust measures for migratory birds and raptors to ensure impacts can be mitigated to a level of less than significant. CDFW recommends larger survey buffers of 500 feet for migratory birds and 0.5 mile for raptors to fully capture all potential nesting activity. CDFW also recommends no more than seven (7) days before construction commences due to some bird species being able to build a nest within that time window. In addition, CDFW recommends that the no disturbance buffers for the migratory birds and raptors are determined in consultation with a qualified biologist and such buffers shall be of sufficient to avoid take. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance.

To address this comment, CDFW recommends Project proponent modify the avoidance and minimization measures in the Mitigation Measures section. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, visual barriers, and buffers, where appropriate. The draft MND should also include appropriate preconstruction surveys for non-listed migratory birds at a minimum radius of 500-feet (for migratory birds) and 1/2-mile (for raptors) around the Project site that can be accessed by Project proponent during the nesting season (February 1 – August 31). The draft MND should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. One example is nest buffer radius which can be determined by monitoring the active nests and determining the distance that activities will disturb the nesting birds. CDFW recommends all measures to protect non-listed nesting birds should be performance-based. While some birds may tolerate disturbance within 500 feet of construction activities, other birds may have a different disturbance threshold and "take" could occur if the temporary disturbance buffers are not designed to reduce stress to that individual pair. CDFW recommends including performance-based protection measures for avoiding all nests protected under the Migratory Bird Treaty Act and Fish & G. Code. A 500-foot exclusion buffer may be sufficient; however, that buffer may need to be increased based on the birds' tolerance level to the disturbance. It is the Project proponent's responsibility to confirm the buffer is sufficient to avoid take/nest failure. CDFW recommends a final preconstruction survey be required no more than seven (7) calendar days prior to the start of vegetation clearing or ground disturbance activities, as instances of nesting could be missed in earlier surveys. Monitoring of potential nesting activities in the Project site should continue, at a minimum, until the end of the avian nesting season (September 1). If a lapse in Project-related work of seven (7) calendar days or longer occurs, the qualified biologist shall complete another focused survey before Project activities can be reinitiated. It is the Project proponent's

responsibility to comply with Fish and Game Code Sections 3503, 3503.5, and 3513, regardless of the time of year.

ENVIRONMENTAL DATA
CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

FILING FEES
The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION
Pursuant to Public Resources Code § 21092 and § 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the ISMND for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project to assist the City of Elk Grove in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this email or further coordination should be directed to Harvey Tran, Senior Environmental Scientist (Specialist) at (916) 358-4035 or harvey.tran@wildlife.ca.gov.

Thank you.

Harvey Tran
Senior Environmental Scientist (Specialist)
California Department of Fish and Wildlife
Region 2 - North Central Region
Habitat Conservation Program
(916) 358-4035

By sending us an email (electronic mail message) or filling out a web form, you are sending us personal information (i.e. your name, address, email address or other information). We store this

information in order to respond to or process your request or otherwise resolve the subject matter of your submission.

Certain information that you provide us is subject to disclosure under the California Public Records Act or other legal requirements. This means that if it is specifically requested by a member of the public, we are required to provide the information to the person requesting it. We may share personally identifying information with other City of Elk Grove departments or agencies in order to respond to your request. In some circumstances we also may be required by law to disclose information in accordance with the California Public Records Act or other legal requirements.

15 May 2024

Mohammad Sadiq
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
msadiq@elkgrovecity.org

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS PROJECT (WTL019), SCH#2024040605, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 12 April 2024 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019), located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has

adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, 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). For more information on the Construction General Permit, visit the

State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources

Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

SMUD®

Sent Via E-Mail

May 9, 2024

Mohammad Sadiq, P.E.
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
msadiq@elkgrovecity.org

Subject: **Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019) / MND / 2024040605**

Dear Mr. Sadiq:

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Mitigated Negative Declaration (MND) for Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019) (Project, SCH 2024040605).

As a Responsible Agency, SMUD's review of projects include supporting the goals of our 2030 Zero Carbon Plan. This plan is a flexible road map to eliminate greenhouse gas emissions from our electricity production by 2030, which is the most ambitious goal of any large utility in the United States, while maintaining reliable and affordable service. This ambitious goal puts the Sacramento region on the map as an example to follow and a region where innovative, climate-friendly businesses want to be. As a community-owned, not-for-profit utility, our customers and community are at the heart of all we do. By pursuing zero carbon, we're helping create a cleaner and healthier region for all.

It is our desire that the Project will acknowledge any impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services
  - https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery
- The potential need to relocate and or remove any SMUD infrastructure that may be affected in or around the project area

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

- SMUD has existing underground 12kV facilities along Mannington Street within the footprint of project Segment 1.
- SMUD has existing overhead 12kV facilities along Big Horn Blvd within the footprint of project Segment 1.
- SMUD has existing overhead 69kV and 12kV facilities along the west side of Bruceville Road, north of the bridge crossing, at the proposed trail alignment point.
- SMUD has existing infrastructure for future underground 12kV facilities within the footprint of project Segment 2.
- SMUD has an existing pole on the west side of Bruceville Road (to be relocated as per project documentation).

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD, and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this Project. If you have any questions regarding this letter, please do not hesitate to contact me at 916.732.5384, or by email at Amy.Spitzer@smud.org.

Sincerely,

Amy Spitzer
Environmental Services Specialist
Sacramento Municipal Utility District
6201 S Street
Sacramento, CA 95817

cc: Entitlements

Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019)

Federal Project No: CML-5479(053)

Final Initial Study/ Mitigated Negative Declaration Volume II

SCH No. 2024040605

Prepared for:

City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758

Prepared by:

HELIX Environmental Planning, Inc.
1180 Iron Point Road, Suite 130
Folsom, CA 95630

June 2024 | HELIX Project #02722.00001.001

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NOTICE OF AVAILABILITY

NOTICE OF INTENT TO ADOPT

A MITIGATED NEGATIVE DECLARATION

for the

Laguna Creek Trail and Bruceville Road Sidewalks Project

Notice is hereby given that the City of Elk Grove, as Lead Agency, has prepared a Mitigated Negative Declaration (MND) for the below referenced Project. The Draft MND analyzes the potential environmental effects associated with the Project in accordance with the California Environmental Quality Act (CEQA). In accordance with Section 15072 of the CEQA Guidelines, the City of Elk Grove has prepared this Notice of Intent (NOI) to provide responsible agencies and other interested parties with NOI to adopt a MND and solicit comments and concerns regarding the environmental issues associated with the Project.

LEAD AGENCY: City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758

CONTACT PERSON: Mohammad Sadiq, P.E.
Senior Civil Engineer, (916) 627-3349
msadiq@elkgrovecity.org

PROJECT TITLE: Laguna Creek Trail and Bruceville Road Sidewalks Project (WTL019)

PROJECT LOCATION: The Laguna Creek Trail and Bruceville Road Sidewalks Project (WTL019) is located in Elk Grove, California, approximately 0.5 mile west of State Route 99 (SR-99) and approximately 3 miles east of Interstate 5 in area of Bruceville Road and Big Horn Boulevard. The site is located within Section 27, Township 7 North, Range 5 East, on the U.S. Geological Survey (USGS) *Florin*, California 7.5-minute topographic quadrangle at roughly 38° 25' 57.15" north latitude, 121° 25' 3.10" west longitude.

Project Description: Development of the Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings. The primary trail extension is from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby linking thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile). Due to high vehicular right-turn volumes, the Project would also include a 300-foot-long vehicular right-turn lane from southbound Bruceville Road to westbound Big Horn Boulevard for added bicycle safety.

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and subbase as needed. Base material would consist of aggregate base, with a subbase of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

The purpose and defined objective of the Project is to construct multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The project is needed to help meet the goals of the *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* (GHD, Inc. 2021), as well as the associated *Sacramento County Bikeway Master Plan* (Sacramento County 2011), and *Sacramento Area Council of Governments* (SACOG) *Master Plan* (SACOG 2015). The Project is needed to provide connecting links that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. Development of the Project would provide greater accessibility to the existing trail system within the City of Elk Grove and make trails directly accessible to additional homes.

PUBLIC REVIEW PERIOD: A **30-day** public review period for the draft MND commenced on April 15, 2024 and ended at 5:00 P.M. on May 15, 2024 for interested individuals and public agencies to submit written comments on the document. Any written comments on the MND were received at the above address or by email to msadiq@elkgrovecity.org within the public review period. Comments can also be made during the public hearing on the Project. Copies of the draft MND and Initial Study are available for review at the City at the above address and on the website at: https://www.elkgrovecity.org/city_hall/departments_divisions/planning/environmental_review.

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A	Mitigation Monitoring and Reporting Program
B	Visual Impact Assessment Memorandum
C	Construction Air Quality and Greenhouse Gas Review
D	Natural Environment Study
E	Arborist Report
F	Historic Property Survey Report/Archaeological Survey Report – CONFIDENTIAL, on file with City of Elk Grove
G	City of Elk Grove Laguna Creek Trails Project – Floodplain Evaluation
H	Construction Noise Review

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
APN	Assessor's Parcel Number
ASR	Archaeological Survey Report
BMP	Best Management Practices
BPTMP	Bicycle, Pedestrian, and Trails Master Plan
CA	California
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CC	Community Commercial
CCR	California Code of Regulations
CCSD	Cosumnes Community Services District
CCSDFD	Cosumnes Community Service District Fire Department
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CDTSC	California Department of Toxic Substances Control
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of Elk Grove
CNDDB	California Natural Diversity Database
CO_2e	carbon dioxide equivalent
County	Sacramento County
CRHP	California Register of Historic Places
CRZ	Critical Root Zone
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dBA	decibels, A-weighted
DG	Decomposed Granite
DLR	dripline radius
DSH	Diameter at standard height
EIR	Environmental Impact Report
EMD	Environmental Management Department
ESA	Environmentally Sensitive Area
GC	General Commercial

ACRONYMS AND ABBREVIATIONS (cont.)

HDR	High Density Residential
HMA	Hot Mixed Asphalt
HMBP	Hazardous Materials Business Plan
HPSR	Historic Property Survey Report
ISA	International Society of Arboriculture
lbs.	pounds
LCWC	Laguna Creek Watershed Council
LCWMAP	Laguna Creek Watershed Management Action Plan
L_{EQ}	Equivalent continuous sound level
LID	Low Impact Development
L_{MAX}	maximum sound level during a given measurement period or event
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MP	Industrial-Office Park
MRZ-3	Mineral Resource Zone 3
MS4	Municipal Separate Storm Sewer Systems
MSL	mean sea level
MT	metric ton
MUTCD	Manual of Uniform Traffic Control Devices
N/A	Not Applicable
NCIC	North Central Information Center
ND	Negative Declaration
NDPES	National Pollutant Discharge Elimination System
NEPA	National Environmental Policy Act
NES	Natural Environmental Study
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NO_X	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O	Open Space
P.E.	Professional Engineer
P/OS	Parks and Open Space
PA	Programmatic Agreement
PAL	Project Area Limits
PEC	Project Environmental Coordinator
Permit	Lower Laguna Flood Control Project
PJD	Preliminary Jurisdictional Determination
PM_{10}	particulate matter, 10 micrometers in diameter
$PM_{2.5}$	particulate matter, 2.5 micrometers in diameter

ACRONYMS AND ABBREVIATIONS (cont.)

PPV	peak particle velocity
Project	Laguna Creek Trail and Bruceville Road Sidewalks Project
RC	Regional Commercial
RCNM	Roadway Construction Noise Model
RD-30	High Density Residential – Thirty Dwelling Units per Acre
RMC	Resource Management and Conservation
RMS	root mean square
RMU	Residential Mixed Use
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SACOG Master Plan	Sacramento Area Council of Governments Regional Bicycle, Pedestrian, and Trails Master Plan
SB	Senate Bill
SCBMP	Sacramento County Bikeway Master Plan
SCEMD	Sacramento County Environmental Management
SHPO	State Historic Preservation Officer
SMAQMD	Sacramento Metropolitan Air Quality Management District
SNC	Sensitive natural communities
SO_X	sulfur oxides
SR-160	State Route 160
SR-99	State Route 99
SRSWA	Sacramento Regional Solid Waste Authority
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACM	Transportation Alternatives Congestion Management
UAIC	United Auburn Indian Community of Auburn Rancheria
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Services
USGS	U.S. Geological Survey
VdB	velocity in decibels
VMT	vehicle miles traveled
VOC	volatile organic compound

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1.0 MITIGATED NEGATIVE DECLARATION INFORMATION SHEET

Project Title:	Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (WTL019)
Lead Agency name and address:	City of Elk Grove 8401 Laguna Palms Way Elk Grove, CA 95758
Contact Person and Phone Number:	Mohammad Sadiq, P.E. Senior Civil Engineer (916) 627-3349
Project Location:	The Project site is located in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, California, approximately 0.5 mile west of State Route (SR)-99, and approximately 3 miles east of Interstate 5. The site is located within Section 27, Township 7 North, Range 5 East on the U.S. Geological Survey (USGS) *Florin*, California 7.5-minute quadrangle (38° 25' 13" North, 121° 27' 48" West).
Project Sponsor's name and Address:	City of Elk Grove
General Plan Designation:	Resource Management and Conservation (RMC), Parks and Open Space (P/OS), High Density Residential (HDR), Residential Mixed Use (RMU), Regional Commercial (RC), and Community Commercial (CC)
Zoning:	Open Space (O), High Density Residential – Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC)
Description of Project:	Development of the Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings. A trail extension is planned along the northern side of Big Horn Boulevard between the Trojan Storage II Project west of Lewis Stein Road and Bruceville Road (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby linking thousands of residents to an interconnected trail system between two cities and multiple neighborhoods. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile).

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2.0 INTRODUCTION

This **Final Initial Study** includes limited revisions that derived from public comments that were received during the Draft Initial Study's public circulation period, which began on April 15, 2024 and ended May 15, 2024. Revisions to the Draft Initial Study can be identified by ~~strikeout~~ text where language has been deleted, and by <u>underline</u> text where language has been added. This revised document constitutes the **Final Initial Study** for the Project.

2.1 INTRODUCTION AND REGULATORY GUIDANCE

This document is an Initial Study supporting a Mitigated Negative Declaration (MND) determination for the Laguna Creek Trail and Bruceville Road Sidewalks Project (Project). This MND evaluates the potential impacts resulting from implementation of the Project. This MND has been prepared in accordance with CEQA, Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15000 *et seq.*

An Initial Study is prepared by a Lead Agency to determine if a project has the potential to result in significant impacts on the environment (CEQA Guidelines Section 15063). An Environmental Impact Report (EIR) must be prepared if an Initial Study indicates that the project under review may result in significant impacts to the environment. A Negative Declaration (ND) may be prepared instead, if the Lead Agency prepares a written statement describing the reasons why a project would not have a significant effect on the environment, and therefore does not require the preparation of an EIR. According to CEQA Guidelines Section 15070, a ND or MND shall be prepared for a project subject to CEQA when either:

A. The Initial Study documents that there is no substantial evidence, in light of the whole record before the agency, that the project may result in any significant effect on the environment, or

B. The Initial Study identifies potentially significant effects, but:

    1) Revisions in the project plans or proposals made by or agreed to by the applicant before the negative declaration is released for public review would avoid potentially significant impacts or mitigate potential impacts to less than significant levels, and

    2) There is no substantial evidence, in light of the whole record before the agency that the project, as revised, may result in significant impacts to the environment.

The Draft ISMND was circulated for agency and public review during a 30-day public circulation period that began on April 15, 2024 and ended May 15, 2024. During that time, three comment letters/emails were received. Those letters, and the City's responses to them, are attached to this ISMND as Appendix I. The comments did into identify any potentially significant environmental effects from implementation of the Project. Accordingly, additional environmental analysis is not required.

2.2 LEAD AGENCY

The Lead Agency is the public agency that has the principal responsibility for carrying out or approving a project. CEQA Guidelines Section 15051 states that if a project will be carried out by a public agency that

agency shall be the Lead Agency, even if the project would be located within the jurisdiction of another public agency. The City of Elk Grove (City) is the Lead Agency for the purposes of CEQA.

2.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this Initial Study is to document if implementation of the Project may result in potentially significant impacts on the environment.

This document is divided into the following sections:

Section 1.0 Mitigated Negative Declaration Information Sheet
Pursuant to CEQA Guidelines 15071, this section includes a brief description of the project, the project location, and the City's findings. This section references the attached Initial Study, including mitigating measures included by individual resource issue area as applicable to development of the Project.

Section 2.0 Introduction
This section provides an introduction and describes the purpose and organization of this document.

Section 3.0 Project Description
This section provides a detailed description of the Project including the location of the project.

Section 4.0 Initial Study Checklist
This section describes the environmental setting for each of the environmental subject areas, the regulatory setting, where relevant, and evaluates a range of impacts in response to the environmental checklist. Impacts are classified as "no impact," "less than significant impact," "less than significant with mitigation incorporated," or "potentially significant impact." Where appropriate, mitigation measures are provided that mitigate potentially significant impacts to a less than significant level.

Section 5.0 CEQA Determination
This section provides the environmental determination for the project.

Section 6.0 Report Preparation
This section identifies a list of staff and consultants responsible for preparation of this document, and persons and agencies consulted.

Section 7.0 References
This section identifies the references used in preparation of the MND.

2.4 THRESHOLDS OF SIGNIFICANCE

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15358). Environment as used in this definition includes the land, air, water, minerals, flora, fauna, ambient noise, and objects which are historical or aesthetic in nature. The guidelines in the following Initial Study focus on these elements and are used as tools to determine the potential of whether or not an activity is considered significant (CEQA Guidelines Section 15065). Effects are also recognized as to whether they would occur either directly or indirectly as a result of the project.

2.5 TERMINOLOGY USED IN THIS DOCUMENT

The Lead Agency has defined the column headings in the Environmental Checklist as follows:

"**Potentially Significant Impact**" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

"**Less Than Significant with Mitigation Incorporated**" applies where the inclusion of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

"**Less Than Significant Impact**" applies where the project does not create an impact that exceeds a stated significance threshold.

"**No Impact**" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

The explanation of each issue identifies the significance criteria or threshold used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. Where appropriate, the discussion identifies the following:

a) Earlier Analyses Used. Identifies where earlier analyses are available for review.

b) Impacts Adequately Addressed. Identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated," describes the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

2.6 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist in Section 4.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	■ Air Quality

■ Biological Resources	■ Cultural Resources	☐ Energy
■ Geology and Soils	☐ Greenhouse Gas Emissions	■ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	■ Land Use and Planning	☐ Mineral Resources
■ Noise	☐ Population and Housing	☐ Public Services
■ Recreation	☐ Transportation	■ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	■ Mandatory Findings of Significance

2.7 REQUIRED PERMIT APPROVALS

Implementation of the Project is anticipated to require permits and authorizations as summarized in **Table 2-1, *Potential Resource Agency Permitting Requirements*** below.

Table 2-1
POTENTIAL RESOURCE AGENCY PERMITTING REQUIREMENTS

Approving Agency	Permit/ Approval
Federal Agencies	
U.S. Fish and Wildlife Service (USFWS)	Compliance with Section 7 of the Federal Endangered Species Act (16 USC 1536)
U.S. Army Corps of Engineers (USACE)	Compliance with Section 404 of the Federal Clean Water Act
State Historic Preservation Officer (SHPO)	Compliance with Section 106 of the National Historic Preservation Act
State Agencies	
State Water Resources Control Board, Regional Water Quality Control Board (SWRCB, RWQCB)	Coverage under the General Construction Activity Storm Water Permit (§ 402 of the Clean Water Act, 40 CFR Part 122)
State Water Resources Control Board, Regional Water Quality Control Board (SWRCB, RWQCB)	Water Quality Certification (§401 of the Clean Water Act)
California Department of Fish and Wildlife (CDFW)	Streambed Alteration Agreement (§1602 of the Fish and Game Code)
Local Agencies	
City of Elk Grove	Project Approval/Draft MND Adoption
City of Elk Grove	Land Disturbance Permit

3.0 PROJECT DESCRIPTION

3.1 LOCATION

The City, in coordination with the California Department of Transportation (Caltrans), proposes multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalk improvements along Bruceville Road. The Project site is located in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, California, approximately 0.5 mile west of SR-99, and approximately 3 miles east of Interstate 5. The site is located within Section 27, Township 7 North, Range 5 East on the USGS *Florin*, California 7.5-minute quadrangle (38° 25' 13" North, 121° 27' 48" West) (**Figure 3-1**, ***Project Vicinity Map***, and **Figure 3-2**, ***Project Location Map***).

3.2 ZONING

Improvements within the City would traverse an existing undeveloped area zoned for Open Space (O), High Density Residential– Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC).

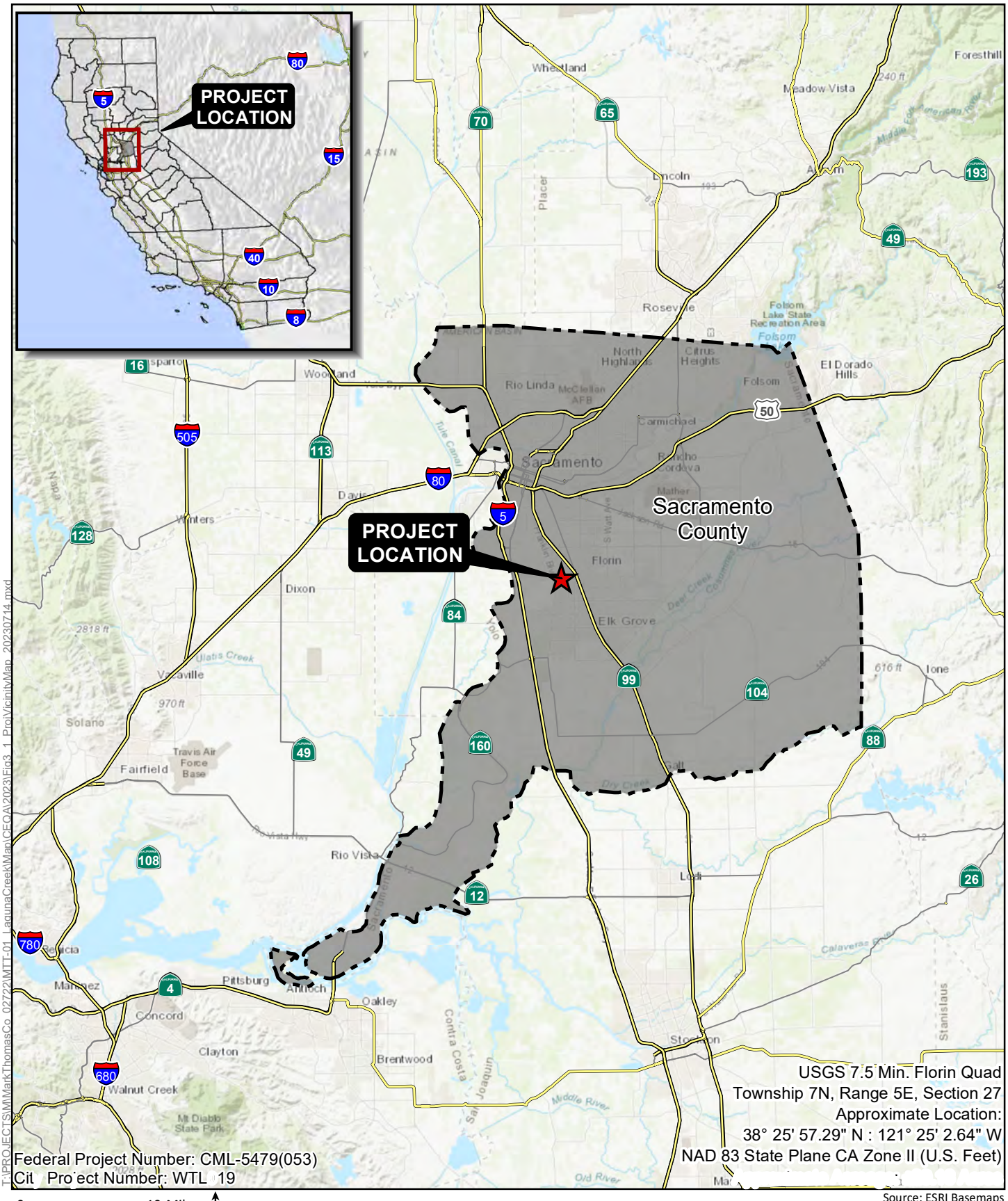
3.3 SURROUNDING LAND USES

The Project site is surrounded by residential communities and commercial uses generally located along Bruceville Road. Laguna Creek comes from the east to the Project site. Elk Grove Creek comes from the southeast and joins Laguna Creek adjacent to the site.

3.4 LOWER LAGUNA FLOOD CONTROL PROJECT

The United States (U.S.) Army Corps of Engineers (USACE) issued authorization under Section 404 of the Federal Clean Water Act (CWA) on June 5, 1998 (Regulatory ID Number 199500313) for the Lower Laguna Flood Control Project (Permit). The Lower Laguna Flood Control Project provides flood protection to neighboring upland areas by constructing a bypass channel, installing twin 72-inch pipes with outfalls, and an extension of a 60-inch pipeline across Laguna Creek, as well as the installation of a 60-inch pipe with outfall from the water quality ponds on the Park Meadows South site across Laguna Creek and discharging into the bypass channel. The Permit authorized the fill of 12.39 acres of waters of the U.S. and mitigation included the creation of 23.75 acres of aquatic resources onsite plus offsite vernal pool mitigation as required by the October 29, 1996 Biological Opinion (File 1-1-96-F-51) issued by the U.S. Fish and Wildlife Service (USFWS).

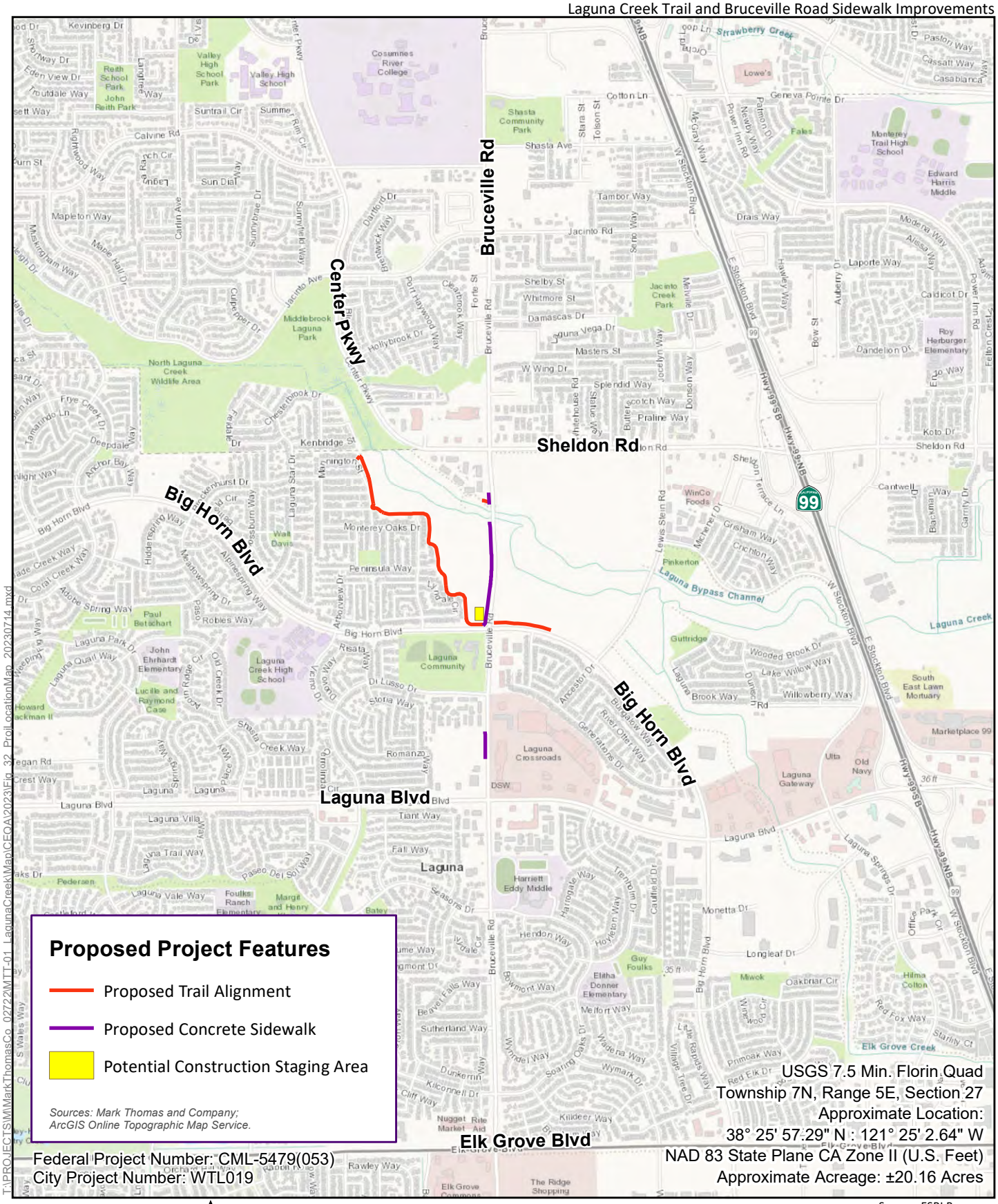
The Biological Opinion included conservation measures addressing giant garter snake (*Thamnophis couchi gigas*), vernal pool tadpole shrimp (*Lepidurus packardi*), and vernal pool fairy shrimp (*Branchinecta lynchi*). Measures relevant to giant garter snake included, in part, preservation of onsite perennial marsh and creation of additional marsh acreage within the greater Lower Laguna Flood Control Project area. Conservation measures addressing vernal pool tadpole shrimp and vernal pool fairy shrimp included the payment of in-lieu fees to purchase 1.46 vernal pool preservation credits for effects to 0.73 acre of vernal pools and the corresponding loss of habitat for vernal pool invertebrates.



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Project Vicinity Map

Figure 3-1



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HELIX Environmental Planning

Project Location Map

Figure 3-2

The USACE reinitiated Section 7 Consultation with the USFWS on May 15, 1998, to meet four objectives: (a) to allow for restoring vernal pools concurrently with the phasing of the project; (b) to extend the deadlines for placing preservation areas under conservation easements; (c) to address the reduction in project-related wetland impacts; and (d) to remove the requirement of placing rock refugia along Laguna Creek for giant garter snakes.

As of March 26, 1999, Sacramento County (County) had acquired Fee Title to the areas within the Phase 1 portion of the Laguna Creek corridor, except the Low property. The grant deeds for these properties, except Sheldon Farms, include deed restrictions which require the County to "*Conserve, protect, restore, and enhance the Protected Property in a manner consistent with the Biological Opinion and Department of Army Permit No. 199500313.*" The USFWS is acknowledged as a third-party beneficiary, with access and enforcement authority over the terms of the conservation measures listed in the grant deed. The deed restrictions protecting biological resources on the Sheldon Farms property were expected to be in place within 60 days of the April 21, 1999 Biological Opinion Amendment. For the Low property, the County proposed to require easement recordation, or other USFWS-approved instrument that provides the same level of protection for open space, as a condition of any discretionary action to be approved by the County.

The Project would develop trail improvements through the Phase 1 portion of the Lower Laguna Flood Control Project (Phase 1 as defined within the 1999 Biological Opinion Amendment). Portions of the Project site which are currently covered by deed restrictions required for the Lower Laguna Flood Control Project.

On June 2, 2023, Zach Liptak, Senior Environmental Planner on behalf of the City transmitted a letter to USFWS Sacramento Valley Division Biologist Emma Bickerstaff and USFWS Sacramento Valley Division Senior Biologist Ian Perkins-Taylor, and USFWS Sacramento Valley Division Supervisor Megan Cook summarizing trail improvements within and adjacent to recorded deed restricted parcels.

On September 27, 2023, the USFWS responded to the June 2, 2023, letter referenced above. The USFWS acknowledged the trail alignment and construction would encroach into the deed restricted parcels but would only be a temporary and small-scale impact to upland habitat. In addition, the USFWS stated that "the proposed new post and cable fencing and interpretive signage will aid in preventing pedestrian disturbance and associated erosion. It appears as though the conservation values of these areas will still be retained upon completion of construction for the following reasons: the small scale of proposed encroachment within areas of already disturbed upland snake habitat in the deed restricted parcels, the proposed trail is not expected to restrict movement of small mammals throughout the site, we anticipate that ground squirrels and other small mammals will continue to inhabit grounds adjacent to the proposed project".

3.5 NEAR-FUTURE DEVELOPMENTS IN THE AREA

Sheldon Farms North (City Project No. EG-18-019) is identified as "under construction" as of December 19, , 2023, and is located south of Sheldon Road, north of Laguna Creek, between Bruceville Road and Lewis Stein Road. Sheldon Farms North includes Large Lot Tentative Subdivision Map for the creation of 14 large lots, including one commercial lot, one high-density residential lot, one park lot, and other lots for drainage and open space, and a Small Lot Tentative Subdivision Map for the creation of 391 single-family residential lots. The project also includes Design Review for Subdivision Layout; an Amendment to the City's Bicycle, Pedestrian, and Trails Master Plan to construct a 10-foot-wide bike trail along the length of Laguna Creek within the southern portion of the project site. The project would adjust the

alignment of the trail from what has been anticipated in the City's Bicycle, Pedestrian, and Trails Master Plan (City of Elk Grove 2023a).

City Affordable Housing Project (formerly known as Sheldon Farms South [City Project No. EG-18-024]) is identified as a potential affordable multi-family housing development project on a City-owned parcel located at the northeast corner of Bruceville Road and Big Horn Boulevard (City of Elk Grove 2023a).

The Trojan Storage II (City Project No. EG-20-018) is identified as "under construction" as of December 19, 2023, and is located at the northwest corner of Big Horn Boulevard and Lewis Stein Road. The Trojan Storage II development is a mixed-use facility that includes a personal storage facility and flex-warehouse spaces along with associated site improvements including parking and landscaping. The Trojan Storage II Project also includes a Minor Uniform Sign Program and an Amendment to the City's Bicycle, Trails, and Pedestrian Master Plan to relocate a multi-purpose trail to the landscape corridor adjacent to Big Horn Boulevard (City of Elk Grove 2023a).

The Lyla Project, is identified as "under construction" as of December 20, 2023, and is located south of Di Lusso Drive, west of Bruceville Road, and north of Laguna Boulevard. The Lyla Project is an affordable multi-family housing development to include 13 three-story buildings providing 294 affordable residential units, as well as a community room, gym, and swimming pool. The project also includes a Special Parking Permit for reduced parking (City of Elk Grove 2023a).

The Big Horn Professional Center (City Project No. EG-16-051) at the southeast corner of Big Horn Boulevard and Lewis Stein Road has been approved by the City. The Big Horn Professional Center would consist of office condominiums (City of Elk Grove 2023a).

3.6 BACKGROUND

Development of the Project would implement goals and policies identified within several regional planning documents.

3.6.1 Master Plans

3.6.1.1 City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan

The City currently contains 35 miles of trails for pedestrians and bicyclists (GHD, Inc. 2021). The *City of Elk* Grove *Bicycle, Pedestrian, and Trails Master Plan* (BPTMP) was adopted in May 2021, updating the 2014 BPTMP to establish a long-term vision for improving walking, bicycling, and equestrian uses in Elk Grove and identify a short-term action plan of implementable projects, programs, and policies (GHD, Inc. 2021). The goal of the BPTMP is to improve connectivity and accessibility for bicycles and pedestrians in the City through a network of trails. One of the BPTMP targets for improvements to the trail system is to connect existing trails. In the general vicinity of the Project, planned Class I multi-use trails are shown along Laguna Creek and adjacent to residential areas with connections to existing Class I multi-use trails. Pedestrian improvements are also identified along Bruceville Road at the Project location (GHD, Inc. 2021).

3.6.1.2 Sacramento County Bikeway Master Plan

The *Sacramento County Bikeway Master Plan* (SCBMP) was first adopted in 1993 and is now a joint document with the City of Sacramento and Sacramento County (Sacramento County 2011). The current SCBMP was adopted in April 2011 and amended in January 2012 to guide and influence bikeway

policies, programs, and development in Sacramento County. A total of 203.9 miles of existing bikeways are currently present in Sacramento County. The SCBMP recommends developing a more continuous bicycle network and identifies the need for more access to regional parks, schools, public facilities, employment centers, and residential land uses, verifying the necessity of the open space trail (Sacramento County 2011). The SCBMP identifies a Class I Bike Path called "Elk Grove Creek Trail" in the general location of the Project (Sacramento County 2011: pp. 95, 125-126).

3.6.1.3 Sacramento Area Council of Governments Regional Bicycle, Pedestrian, and Trails Master Plan

The *Sacramento Area Council of Governments Regional Bicycle, Pedestrian, and Trails Master Plan* (SACOG Master Plan) was updated in 2015 and outlines a complete transportation system for healthy living and active communities with bicycle and pedestrian project plans. In the vicinity of the Project, the SACOG Master Plan identifies multi-use paths along both sides of Laguna Creek near Bruceville Road and adjacent to residential areas, tying into existing multi-use paths in Elk Grove and Sacramento (SACOG 2015).

3.6.2 Laguna Creek Watershed Management Action Plan

The *Laguna Creek Watershed Management Action Plan* (LCWMAP) by the Laguna Creek Watershed Council (LCWC) recommends actions to ensure a healthy watershed community for environmental resources and people who use the watershed. Action No. 27, Lower Bypass Area Reach Policies, includes recommendations for future planning efforts for the segment of Laguna Creek between Bruceville Road and Lewis Stein Road, south of Sheldon Road, and north of Big Horn Boulevard, which includes portions of the Project. Recommended Action No. 27 states that the following be considered, "*preservation of the creek corridor, implementation of appropriate stormwater management controls, integration of LID* [Low Impact Development] d*esign solutions, and trail connection through the development*" (LCWC 2009).

3.7 PROJECT PURPOSE AND NEED/PURPOSE AND OBJECTIVES

The purpose and defined objective of the Project is to construct multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Project is needed to help meet the goals of the City of Elk Grove BPTMP (GHD, Inc. 2021), as well as the associated SCBMP (Sacramento County 2011), and SACOG Master Plan (SACOG 2015). The Project is needed to provide connecting links that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. Development of the Project would provide greater accessibility to the existing trail system within the City of Elk Grove and make trails directly accessible to additional homes.

3.8 PROJECT COMPONENTS

Development of the Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings (**Figure 3-3**, ***Proposed Project***). A trail extension would run along the northern side of Big Horn Boulevard between the Trojan Storage II Project west of Lewis Stein Road and Bruceville Road (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail

system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile). Due to high vehicular right-turn volumes, the Project would also include a 300-foot-long vehicular right-turn lane from southbound Bruceville Road to westbound Big Horn Boulevard for added bicycle safety.

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and subbase as needed. Base material would consist of aggregate base, with a subbase of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

3.8.1 Trail Design

As shown on **Figure 3-3**, two trail segments would be developed as a 10-foot-wide path with 2-foot-wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed at a gradient of 4:1.

3.8.1.1 Segment 1

Segment 1 would be constructed west of Bruceville Road and north of Big Horn Boulevard. The trail would run parallel to existing residential development to the west of Bruceville Road for a length of approximately 0.75 mile from the existing sidewalk at Big Horn Boulevard northwest to a path near Mannington Street (**Figure 3-3**). The vertical profile would roughly follow the natural topography with excavation being limited to a maximum depth of 2 feet for subbase. Grading limits would be contained within a 36- to 44-foot-wide disturbance corridor for Segment 1.

3.8.1.2 Segment 2

Segment 2 would be constructed east of Bruceville Road adjacent and parallel to Big Horn Boulevard for an overall length of approximately 0.16 mile (**Figure 3-3**). It is anticipated that where the Segment 2 alignment terminates, compliance with City-required Conditions of Approval for the Trojan Storage II Project (currently under construction) will result in the construction of a connecting trail segment to Lewis Stein Road. The new trail will use the existing at-grade crossing at Bruceville Road and Big Horn Boulevard to connect to Segment 1. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum depth of 2 feet for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.



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Source: Aerial Imagery (Nearmap 3/15/2023)

HELIX Environmental Planning

Proposed Project

Figure 3-3

3.8.2 Roads and Sidewalks

Sidewalk improvements would be constructed on the west side of Bruceville Road.

Approximately 1,600 feet of sidewalk would be constructed between Big Horn Boulevard and the Bruceville Road Bridge over Laguna Creek (Bridge No. 24C0405) and 180 feet of sidewalk would be constructed from the bridge to existing sidewalk. In addition, the guardrail at the bridge would be replaced and would roughly correspond to the back of sidewalk in this location. New Americans with Disabilities Act (ADA) compliant ramps would be constructed at Mannington Street and at Mannington Street/Wallbridge Way. In addition, due to high vehicular right-turn volumes, the Project would also include a 300-foot-long vehicular right-turn lane from southbound Bruceville Road to westbound Big Horn Boulevard for added bicycle safety.

Approximately 230 feet of sidewalk would be constructed at an existing gap in the sidewalk between Di Lusso Drive and Laguna Boulevard. At this location, the roadway surface at Bruceville Road would be extended to match up with the sidewalk.

3.8.3 Culvert Crossings and Hydrology

The Project would maintain existing grades and drainage patterns to the greatest extent feasible and side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be located in upland areas and sized based on existing topographic information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures.

3.8.4 Road Crossings and Signage

Trail pavement would be delineated by distinct paint, markings, and signs consistent with City standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City may also elect to provide wayfinding signs. According to the BPTMP, all bicycle striping and wayfinding signs would also conform to the Caltrans Highway Design Manual, Chapter 1000 (GHD, Inc. 2021).

3.8.5 Utilities

Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/ sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right of way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades.

The following Sacramento Municipal Utility District (SMUD) infrastructure is currently existing in and near the project site:

- Underground 12kV facilities along Mannington Street within the footprint of project Segment 1.
- Overhead 12kV facilities along Big Horn Boulevard within the footprint of project Segment 1.
- Overhead 69kV and 12kV facilities along the west side of Bruceville Road, north of the bridge crossing, at the proposed trail alignment point.
- Infrastructure for future underground 12kV facilities within the footprint of project Segment 2.
- A utility pole on the west side of Bruceville Road (to be relocated as part of the Project).

3.8.6 Construction

3.8.6.1 Staging

As shown on **Figure 3-3**, one potential construction staging area would be located within the Project site. The potential staging area is identified northwest of the Bruceville Road at Big Horn Boulevard intersection.

3.8.6.2 Construction Protocols

Once the Storm Water Pollution Prevention Plan (SWPPP) and schedule are approved, the contractor would receive a notice to proceed and install the temporary fence to preserve existing vegetation shown to remain and protect Environmentally Sensitive Areas (ESA). In addition, a temporary silt fence would be installed along ESAs with sensitive aquatic features. The temporary fence is typically installed using hand tools to drive fence posts and hang or attach high visibility fabric from outside the protected areas. The silt fence is installed in a similar manner by manual labor using hand tools to key-in the silt fence fabric, drive stakes, and hang or attach the fence fabric. This work would be completed outside the protected ESA.

Following these activities, tree and brush removal would occur to coincide with the non-nesting period of migratory birds. Tree and brush removal would be completed by a combination of manual labor with gas powered equipment such as chain saws, and equipment such as a skid steers, wood chippers, and dump trucks. Any resulting disturbed areas would be stabilized with temporary hydraulic mulch at conclusion of the Project. Temporary hydraulic mulch is typically sprayed in hydraulically from truck mounted equipment with a tackier and fiber to stabilize the slope.

For clearing and grubbing, all vegetation within the trail alignment would be cleared by a combination of manual labor and gas powered equipment. After clearing, organic material within the grading plane would be grubbed. Grubbing would be completed using equipment such as a scraper, excavator, and dump truck as well as gas-powered hand-held equipment.

The contractor would then prepare the subgrade for the trail section by excavating or backfilling and compacting the subgrade to the desired elevation. Equipment used for excavation would typically include bulldozers, scrapers, excavators, and front-end loaders.

Once the subgrade is prepared, the contractor would place the base course of aggregate. This material would be hauled in using a dump truck to place aggregate at the approximate depth followed by a grader and then a compaction roller. Where HMA is used, a dump truck would be used to place HMA within a paving machine and the HMA would then be compacted using a steel drum roller. Where decomposed granite is used, the aggregate material would be hauled in using a dump truck, where the material would be stockpiled and then placed at the approximate depth using a grader or backhoe and then a compaction roller.

Additional work, such as signing and striping, would be done by a combination of manual labor and specialized equipment along the trail or at the trail's edge. Signing would be completed using hand tools or powered equipment to excavate sign post foundations using shovels or powered post hold diggers and then backfilled. Striping would be done with a thermoplastic or paint applicator that is either powered or pushed to apply the thermoplastic stripe at the center of trail.

As portions of the trail are completed, the contractor would place Best Management Practices (BMPs) comprised of hydroseed and hydraulic mulch, fiber rolls, and check dams at cross culverts, as applicable. Fiber rolls and check dams are typically installed by manual labor using hand tools to key-in fiber rolls and drive stakes. The hydroseed and hydraulic mulch are typically sprayed in hydraulically from truck mounted equipment on the trail.

Construction emissions would be minimized through implementation of the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Basic Construction Emission Control Practices (2019), SMAQMD's Rule 403 regarding fugitive dust, and compliance with Caltrans' Standard Specifications Section 14 and 14-9.02 as follows:

SMAQMD Basic Construction Emission Control Practices

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for California Air Resources Board's (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
- Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

Caltrans' Standard Specification Section 14 and Section 14-9.02

- The construction contractor shall comply with Caltrans' Standard Specifications Section 14 of Caltrans' Standard Specifications (2023) and Section 14-9.02 Air Pollution Control. Section 14-9.02 states:

    a. Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Government Code §11017 (Pub Cont Code §10231).

    b. Do not dispose of material by burning.

Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust

- Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust would be followed. The general requirements of Rule 403 are:

    a. 301 Limitations: A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

        I. 301.1 Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land.

        II. 301.2 Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts;

        III. 301.3 Other means approved by the Air Pollution Control Officer.

Construction noise would be minimized in compliance with the Section 6.32.080 Exterior Noise Standards of the City of Elk Grove Municipal Code and Caltrans' Standard Specification Section 14.8-02 as follows:

- In compliance with Section 6.32.080 Exterior Noise Standards of the City of Elk Grove Municipal Code, construction activity shall be limited to daytime hours, based on the City's Municipal Code, limiting construction activities to 7:00 a.m. and 7:00 p.m. when located adjacent to residential land uses and 6:00 a.m. and 8:00 p.m. when not adjacent to residential land uses.

- Consistent with Caltrans Standard Specifications (2023), if work is performed at nighttime, construction noise shall be conducted in accordance with Caltrans Standard Specifications Section 14.8-02 restricting nighttime noise levels. The provisions of Caltrans Standard Specifications, Section 14-8.02 "Noise Control" require the following:

    - Control and monitor noise resulting from work activities.

    - Do not exceed 86 dBA L_{MAX} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

In addition, as directed by the Project Engineer, the contractor shall implement appropriate additional noise reduction measures for construction activity, including changing the location of stationary construction equipment, turning off idling equipment, use of sound blankets on individual components of construction equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.

3.8.7 Schedule

Construction of the Project would commence in summer of 2025 and would take approximately seven to nine months to complete.

3.9 DESIGN REFINEMENT

The City revised the Segment 2 alignment in 2020 to avoid sensitive resources, including aquatic resources and habitat for listed species, resulting in a 1.46 acre reduction in permanent impacts to aquatic resources.

In 2022, the eastern extent of the Segment 2 alignment was removed since it is being constructed as part of City-required Conditions of Approval for the Trojan Storage II Project (currently under construction).

In 2023, the Segment 3 alignment was removed since it was constructed as part of the Sheldon Farms residential development project, and the Segment 1 alignment was revised to further avoid sensitive resources, including habitat for listed species, resulting in a 7.94-acre reduction to the overall Project alignment.

4.0 INITIAL STUDY CHECKLIST

4.1 AESTHETICS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐
c)	Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	■	☐

A *Visual Impact Assessment Memorandum* was first prepared by HELIX Environmental Planning, Inc. (HELIX) and approved by Caltrans in 2019. Based on subsequent revisions to the trail alignments as discussed in Section 3.9, Design Refinement, the *Visual Impact Assessment Memorandum* was revised and approved by Caltrans in 2023. The discussion below is based on the revised *Visual Impact Assessment Memorandum* (HELIX 2023), which is attached to this Initial Study as **Attachment B**.

4.1.1 Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

No Impact. The Project would not have a substantial adverse effect on a scenic vista. There are no designated scenic vistas within the City (City of Elk Grove 2018). There would be **no impact** on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The nearest State Scenic Highway is State Route 160 (SR-160), located approximately four miles west of the Project; a segment of SR-160 is also designated as a County Scenic Highway approximately six miles southwest of the Project. A total of 11 trees are planned for removal as part of the development of the Project. However, these trees are all rated as “Fair” or “Poor” in both health and structure. Many of the trees in poor health have moderate to severe trunk rot and/or limb rot, bark wounds, and trunk death. Structurally, many of them demonstrate multiple trunks, leaning

trunks, and included bark. Therefore, development of the Project would have a **less than significant impact** on other scenic resources such as trees, rock outcroppings, or historic buildings within a State or local Scenic Highway.

c) In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Improvements within the City would traverse through an existing undeveloped area zoned for Open Space (O), High Density Residential – Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC) (**Figure 4-1, *Zoning***).

The *Visual Impact Assessment Memorandum* for the Project prepared by HELIX (2023) (**Attachment B**), presents the following findings related to visual character, quality of public views and surroundings.

Visual Setting

The Project's visual setting is a mixture of undeveloped open land and developed suburbs and commercial uses; the site may be described as "developing" in *character*. The overall topography is flat, except for the depressed channel of Laguna Creek and berms adjacent to it. Natural landcover consists of disturbed grassland. Water features are Laguna Creek and a man-made lake east of Mannington Drive and north of Monterey Oak Drive. Man-made features are prevalent. Residential neighborhoods, including apartment complexes and single-family homes, surround the viewshed of the trail area with commercial development along Bruceville Road south of Big Horn Boulevard. Roadways in the viewshed are Bruceville Road, Lewis Stein Road, and Big Horn Boulevard.

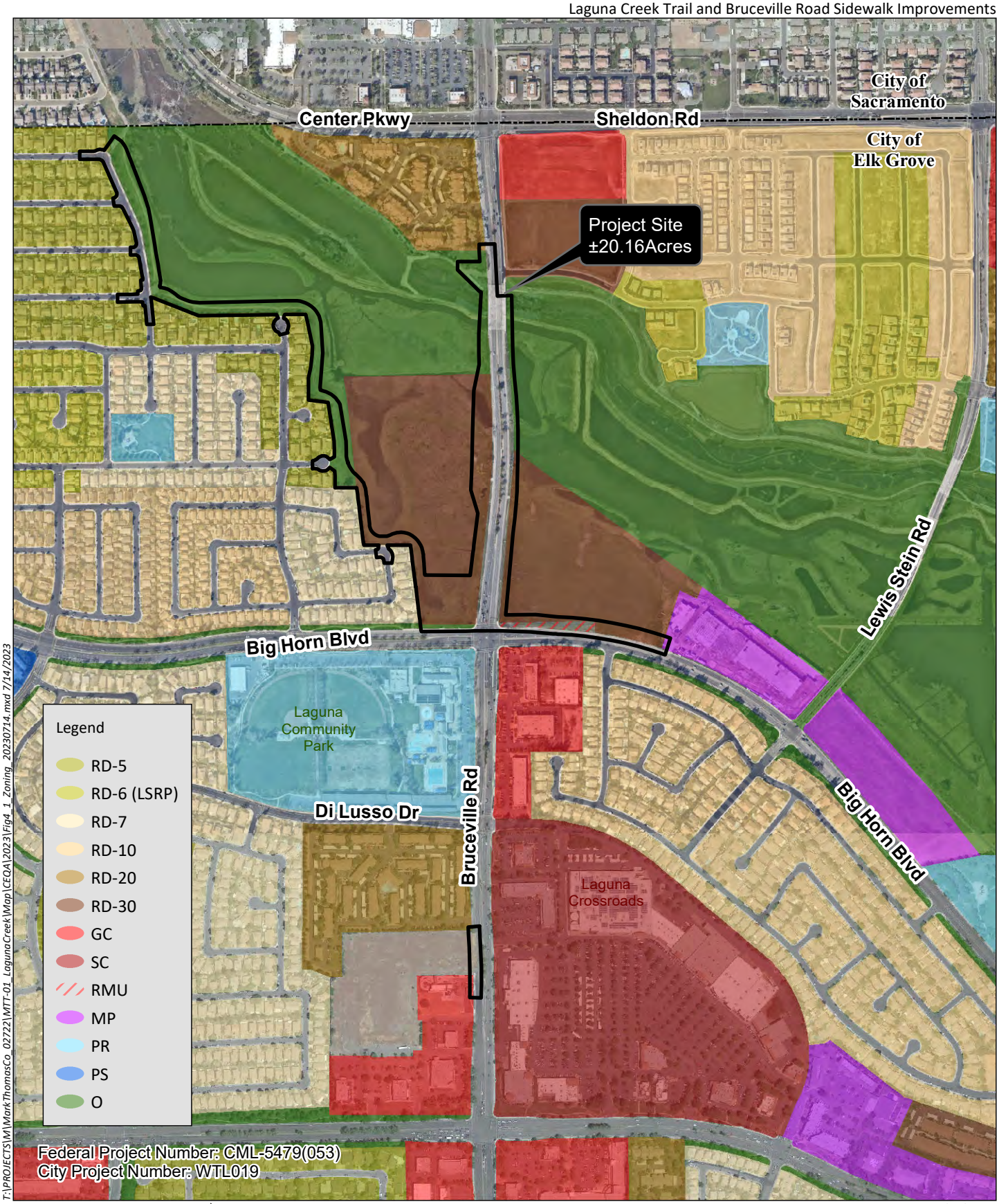
Officially designated scenic resources are also an element of describing visual character and visual quality. Scenic resources are detailed below.

Federal/National Scenic Resources: No federally-designated scenic resources are at or near the Project site. The nearest National Scenic Byway is Ebbetts Pass Scenic Byway, approximately 60 miles to the southwest of the Project site. The nearest Wild and Scenic River is the American River, approximately nine miles north of the Project site (National Parks Service 2019).

State Scenic Resources: The nearest State Scenic Highway is SR-160, located approximately four miles west of the Project site along the Sacramento River (Caltrans 2019b).

County Scenic Resources: A segment of SR-160 from Isleton Bridge to Paintersville Bridge is officially designated as a County Scenic Highway approximately six miles southwest of the Project site (Caltrans 2015, 2017); SR-160 is also considered eligible from the Contra Costa County line up to the Sacramento city limits (Caltrans 2019b).

Local Scenic Resources: Elk Grove does not have any officially designated scenic vistas; however, the City has identified parks and open space and lakes, rivers, and creeks (including Laguna Creek) as potential scenic resources (City of Elk Grove 2018). The City also describes agricultural landscapes and trees, particularly large or clustered adult trees, as typical scenic resources (City of Elk Grove 2021a).



0 700 Feet

Source: City of Elk Grove, 2021; Aerial (Nearmap 3/15/2023)

HELIX Environmental Planning

Zoning

Figure 4-1

Resource Change (Visual Character and Visual Quality)

The visual character surrounding the Project would be substantially compatible with the existing character of the corridor. Vertical elements would be minor, consisting of bench seating at three to four locations. Along Bruceville Road, the sidewalk would close remnant gaps and provide continuous low-lying form, straight edges, light-grey color, and relatively smooth texture, consistent with the existing sidewalks. The trail would introduce a new man-made feature consisting of a fairly flat form at ground-level and long lines from the trail edges; asphalt would be dark in color and the trail surface would be smooth in texture. The character would be substantially compatible with the existing corridor, as visual encroachments from residences and/or commercial buildings are still apparent in the background.

Improvements have been designed to formalize trail alignments in areas where existing informal use occurs. The visual quality of the existing corridor would therefore be slightly changed by the Project. The Project would remove approximately 3.79 acres of vegetation (HELIX 2023) and construct new sidewalks along the existing road. Visual quality would change only slightly, as the trail would follow existing informal foot paths currently utilized by people in the area. The trail would remove existing vegetation and construct a paved trail path and shoulders. While the trail would result in a new man-made feature, it will parallel existing concrete sidewalks. Improvements would have no change on vividness.

New sidewalks would be consistent with the character of the area and would improve the visual quality due to increased intactness and unity along the roadways. Trails would be subject to a moderate to low change due to the urbanized character of project surroundings and visual encroachment of residential buildings in the background.

Viewer Sensitivity

Viewers of the trail and sidewalks would consist of residents, recreational users, pedestrians, and automobile drivers and passengers. Sidewalks would be viewable by pedestrians and motorists; pedestrians and motorists would have low exposure due to the transitory nature of use surrounding improvements. Adjacent residents would have the greatest exposure to Project features and have a moderate-high sensitivity to visual changes.

Recreational users would be exposed to Project features while using the trail and given their reliance on Project-related features for recreation, would therefore have a moderate-low viewer sensitivity.

Visual Impact

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. As discussed above, visual quality would slightly decrease. The trail would be visible to recreational users and adjacent residents. Based on moderate-low resource change and moderate-low sensitivity of recreational users, the impact would be moderate-low on recreational users. Based on a moderate-low resource change and moderate-high viewer sensitivity, the visual impact would be moderate on residents adjacent to improvements.

Although the Project would result in changes to the visual setting, officially designated federal, state, or County scenic resources are miles away from the Project site and would not be affected by the Project. Project development would introduce new asphalt surfaces and remove approximately 3.79 acres of annual grassland within the Project footprint (HELIX 2023); however, the Project would also introduce

landscape planters and hydroseed/revegetate disturbed areas to minimize impacts. The existing viewshed already has visual encroachment from residences and/or commercial buildings in the background or adjacent to the trail location. The trail would largely follow existing informal foot paths currently utilized regularly by people in the surrounding area. The Project does not include major vertical features or other visual intrusions that would block views of the surrounding suburban setting or natural features. Vertical elements would be minor, consisting of potentially bench seating at three or four locations.

During construction, motorists and neighboring residents may observe heavy construction equipment, exposed soils during grading activities, temporary traffic control features (such as signage and orange cones), lighting, and construction workers. Visual effects due to Project construction would be short-term and would cease to persist upon Project completion. The Project would have a **less than significant impact** on the existing visual character or quality of public views.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. The Laguna Creek Trail is designated for use between dawn and dusk, negating the need for trail lighting. However, recreational users may access the trail at night using headlamps or flashlights. These occasional light sources emit very low lumens and would be directed towards the trail alignment to guide pedestrian or bike travel and would therefore, have no potential to affect nighttime views. Due to their adjacency to existing roadways, glare from the Project features would not be anticipated to adversely affect day or nighttime views. Therefore, Project development would have a **less than significant impact.**

4.1.2 Mitigation Measures

No mitigation is warranted.

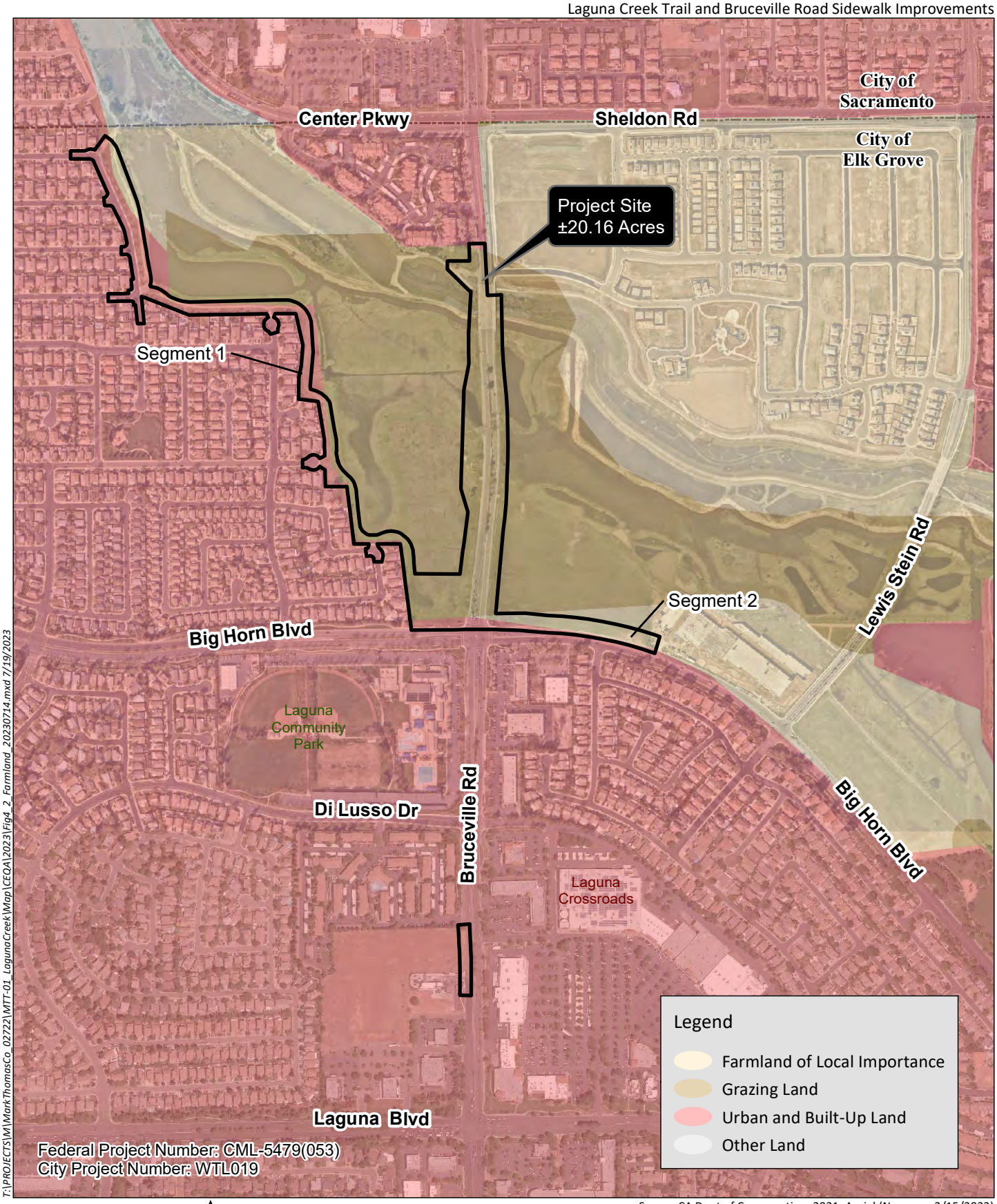
4.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use?	☐	☐	■	☐

4.2.1 Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project is located in areas shown as Grazing Land, Farmland of Local Importance, and Urban and Built-Up Land (**Figure 4-2**, ***Important Farmlands***) in maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (CDOC 2023b). The Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and would therefore have **no impact** on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.



HELIX Environmental Planning

Important Farmlands

Figure 4-2

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project parcels are not zoned for agriculture and are zoned as Open Space (O), High Density Residential – Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC) (**Figure 4-1**). None of the Project parcels are under Williamson Act Contract. **No impact** would result from development of the Project.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The Project parcels are not in areas zoned forest land or timberland or zoned Timberland Production. The Project parcels are zoned as Open Space (O), High Density Residential – Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC) (**Figure 4-1**). **No impact** to forest land would result from development of the Project.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest lands would be impacted by the Project. Biological communities at the Project site consist of depressional seasonal wetland, vernal pools, riverine seasonal marsh, riverine perennial marsh, channel, a segment of Laguna Creek, annual grassland, and developed/disturbed. **No impact** would result from development of the Project.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. The Project is located in areas shown as Grazing Land, Farmland of Local Importance, and Urban and Built-Up Land (**Figure 4-2**) in maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (CDOC 2023b) and in the City's General Plan EIR (City of Elk Grove 2018, Figure 5.2-1 FMMP Important Farmlands), Farmland of Local Importance and Grazing Land are not considered Important Farmland under CEQA.

The Project would develop trail improvements through the Phase 1 portion of the Lower Laguna Flood Control Project (Phase 1 as defined within the 1999 Biological Opinion Amendment). Portions of the Project site which are currently covered by deed restrictions required for the Lower Laguna Flood Control Project. Agricultural production is not permitted in areas covered by deed restrictions.

The Project is not on or near Farmland currently in production, agricultural uses, or forest land as discussed in response to questions a), c), and d) above. The Project alignments would tie-in with local existing trails and/or sidewalks and are surrounded by existing and residential and commercial development. Therefore, construction of trail alignments are not anticipated to result in changes to the environment that would induce further farmland conversion, and impacts related to conversion of agricultural land to non-agricultural use resulting from development of the Project would be considered **less than significant**.

4.2.2 Mitigation Measures

No mitigation is warranted.

4.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	■	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

Rincon Consultants, Inc. (Rincon) prepared a *Construction Air Quality and Greenhouse Gas Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project* (Construction Air Quality and Greenhouse Gas Review) (Rincon 2023), which is attached to this Initial Study as **Attachment C** and summarized below.

The SMAQMD's significance thresholds outlined in the *Guide to Air Quality Assessment in Sacramento County* (SMAQMD 2019) are used to determine the air quality impacts of the Project. Therefore, pursuant to the SMAQMD-recommended thresholds (SMAQMD 2019) the Project's impacts would be considered significant if the Project would:

- Generate construction-related criteria air pollutant or precursor emissions that exceed the SMAQMD recommended daily thresholds of 85 pounds per day (lbs./day) for NO_X, 80 lbs./day of PM_{10}, 82 lbs./day of $PM_{2.5}$, or result in or substantially contribute (at a level equal to or greater than five percent of a California Ambient Air Quality Standard [CAAQS]) to a violation of a CAAQS.

- Generate long-term regional criteria air pollutant or precursor emissions that exceed the SMAQMD recommended daily thresholds of 65 lbs./day of VOC or NO_X, 80 lbs./day of PM_{10}, 82 lbs./day of $PM_{2.5}$, or result in a violation of the CAAQS or result in or substantially contribute (at a level equal to or greater than five percent of a CAAQS) to a violation of a CAAQS.

- Contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards.

- Expose sensitive receptors to excessive nuisance odors, as defined under SMAQMD Rule 402.

- Construction emissions were compared with the applicable thresholds of significance to determine potential impacts. Therefore, if the project would not exceed applicable thresholds, then it would be consistent with air quality standards and would not cause a substantial contribution to an existing or projected air quality violation, and/or conflict with any applicable air quality plan.

4.3.1 Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project would be constructed to comply with the sections pertaining to dust control and dust palliative applications outlined in the Caltrans Standard Specifications (Caltrans 2018).

The Project would implement SMAQMD's Basic Construction Emission Control Practices during construction, SMAQMD's Rule 403 regarding fugitive dust, and Caltrans Standard Specification Section 14 and 14-9.02, as described in the Project Description under Construction Protocols. Based on emission estimates and the application of dust control, no substantial adverse air quality impacts from construction activity are anticipated, and the Project would result in **less than significant impacts** on nearby sensitive receptors from construction related air quality; an additional short-term construction air quality investigation is not required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant with Mitigation Incorporated. The trail and sidewalks would be used by pedestrians and bicyclists; consequently, long-term operations would not generate emissions. However, construction of the Project would result in temporary short term emissions of air pollutants due to grading, fumes, and vehicle exhaust. The Projects' estimated construction emissions are shown below in **Table 4-1**, ***Potential Construction Emissions***.

Table 4-1
POTENTIAL CONSTRUCTION EMISSIONS

Activity	Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	4.27	42.56	39.27	2.03	2.03	0.09
SMAQMD Threshold	N/A	85	N/A	80	82	N/A
Threshold Exceeded?	N/A	No	N/A	No	No	N/A
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Rincon 2023

[1] Emissions of nitrogen dioxide (NO_2) were assumed to equal emissions of NO_X, and emissions of sulfur dioxide (SO_2) were assumed to constitute the functional majority of SO_X emissions.

[2] Full emissions modeling results are included in the *Air Quality Technical Memorandum*.

ROG = reactive organic gas; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides;
PM_{10} = particulate matter, 10 micrometers in diameter; $PM_{2.5}$ = particulate matter, 2.5 micrometers in diameter;
N/A=Not applicable

As shown in **Table 4-1**, Project-generated construction emissions would be minor, and would not exceed the applicable SMAQMD thresholds or contribute to localized concentrations of air pollutants at nearby receptors. Construction impacts related to air quality would be short-term in duration, and therefore,

would not result in adverse or long-term conditions. Nonetheless, implementation of **Mitigation Measures AQ-1 through AQ-3** would be implemented as part of the Project to further reduce potential air quality impacts resulting from construction of the Project. With implementation of the Mitigation Measures AQ-1 through AQ-3, Project impacts would be **less than significant with mitigation incorporated** related to cumulatively considerable net increases of criteria pollutants for which the Project region is non- attainment under an applicable federal or state ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant with Mitigation Incorporated. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Nearby sensitive receptors include single-family residences near the trail alignment and construction staging area and multi-family residences north of sidewalk improvements on Bruceville Road. The closest residential receptors are single-family residences which have property boundaries approximately 15 feet west and south of the alignment. The property line for the multi-family residences is located approximately 80 feet northwest of the sidewalk improvements.

As discussed in the response to question b) above, long-term operations would not result in emissions, and emissions during construction would be below thresholds. Based on this and the temporary nature of construction, there would be less than significant impacts on sensitive receptors. Implementation of **Mitigation Measures AQ-1 through AQ-3** would be implemented as part of the Project to further reduce any air quality impacts resulting from construction of the Project. Therefore, impacts are considered **less than significant with mitigation incorporated.**

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. Construction-related odors would be temporary and disperse rapidly with distance from the source. Construction generated emissions would, therefore, not result in the frequent exposure of receptors to objectionable odor emissions. Furthermore, the City is required to comply with SMAQMD Rules 402 (Nuisance) and 442 (Architectural Coatings) which would ensure that odors generated by short-term construction would not affect a substantial number of people. The Project would have a **less than significant impact** related to emissions.

4.3.2 Mitigation Measures

AQ - 1: Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

AQ - 2: The construction contractor shall comply with Caltrans' Standard Specifications Section 14 of Caltrans' Standard Specifications (2018) and Section 14-9.02 Air Pollution Control. Section 14-9.02 states:

a. Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Government Code § 11017 (Pub Cont Code § 10231).

b. Do not dispose of material by burning.

AQ-3: Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust would be followed. The general requirements of Rule 403 are:

a. 301 Limitations: A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

   i. 301.1 Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land.

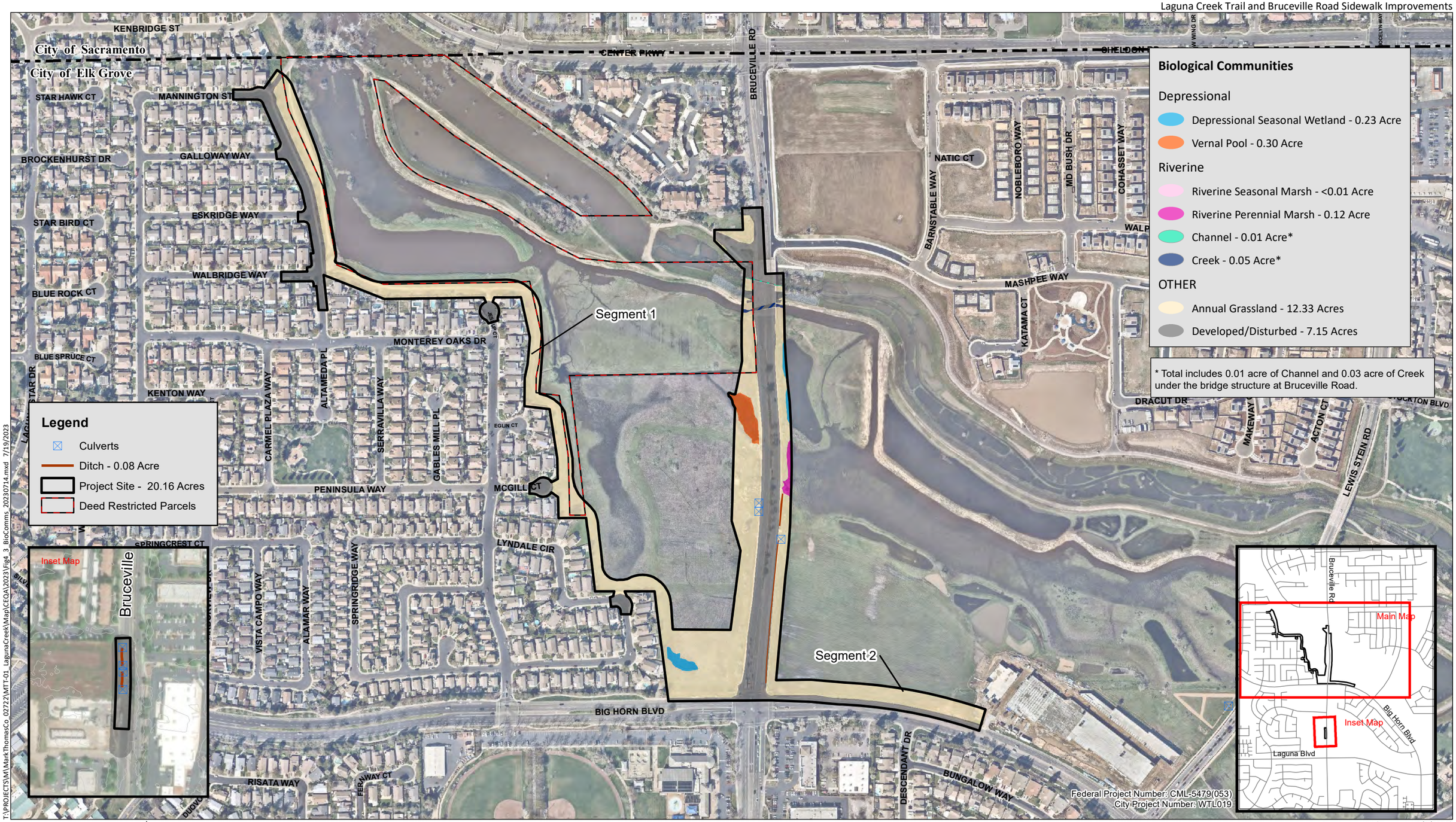
   ii. 301.2 Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.

   iii. 301.3 Other means approved by the Air Pollution Control Officer.

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	■	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	■	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	■	☐	☐

The discussion below is largely based on the *Natural Environment Study for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project* (HELIX 2023) (NES), which is attached to this Initial Study as **Attachment D**. The Biological Study Area defined within the NES is shown on **Figure 4-3**, ***Biological Communities,*** and coincides with the Project site and Project-related impacts to biological communities shown on **Figure 4-4**, ***Proposed Project and Impacts to Biological Communities***.



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Source: Aerial (Nearmap, 3/5/2023)

HELIX Environmental Planning

Biological Communities

Figure 4-3

Biological Community	Permanently Impacted Acreage*	Temporary Impacted Acreage*	Avoided Acreage*	Total Acres within the Project Site*
Annual Grassland	3.79	2.48	6.06	12.33
Depressional Seasonal Wetland	0.01	0.01	0.21	0.23
Vernal Pool	0.06	0.03	0.21	0.30
Riverine Perennial Marsh	-	-	0.12	0.12
Riverine Seasonal Marsh	-	-	<0.01	<0.01
Channel	-	-	0.01	0.01**
Creek	-	-	0.05	0.05**
Disturbed/Developed	0.80	0.74	5.61	7.15
TOTAL ACRES	**4.66**	**3.26**	**12.27**	**20.16**

*Acreages calculated at 6 significant figures and subsequently rounded.
** Total includes 0.01 acre of Channel and 0.03 acre of Creek under the bridge structure at Bruceville Road, in addition to the summed total acreage of disturbed land accounting for the bridge structure.

Legend
- Not Protected - Recommended for Removal Due to Condition
- Protected - Recommended for Removal Due to Condition
- Culverts
- ESA Fencing
- Limit of Disturbance
- Deed Restricted Parcels
- Project Site - 20.16 Acres

Other Features
- Ditch - 0.08 Acre

City of Sacramento
City of Elk Grove
Segment 1
Segment 2
Inset Map
Main Map
Federal Project Number: CML-5479(053)
City Project Number: WTL019

0 400 Feet

Source: Aerial (Nearmap, 3/5/2023)

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HELIX Environmental Planning

Proposed Project and Impacts to Biological Communities

Figure 4-4

4.4.1 Impact Analysis

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation Incorporated. Special-status plant and animal species have the potential to occur within the Project site as described in detail below.

Special-Status Plants

The following special-status plants have the potential to occur within the Project site: Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Boggs lake hedge hyssop (*Gratiola heterosepala*), bristly sedge (*Carex comosa*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), dwarf downingia (*Downingia pusilla)*, Ferris' goldfields (*Lasthenia ferrisiae*), Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*), hoary navarretia (*Navarretia eriocephala*), hogwallow starfish (*Hesperevax caulescens*), lenenere (*Legenere limosa*), marsh skullcap (*Scutellaria galericulata*), Mason's lilaeopsis (*Lilaeopsis masonii*), pappose tarplant (*Centromadia parryi* ssp. *Parryi*), Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*), Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), saline clover (*Trifolium hydrophilum*), Sanford's arrowhead (*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun Marsh aster (*Symphyotrichum lentum*), valley brodiaea (*Brodiaea rosea* ssp. *vallicola*), watershield (*Brasenia schreberi*), and wooly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*). These plant species are of Special Concern based on federal, State, or local laws; and limited distributions, and could potentially occur within the Project site due to the presence of suitable habitat. However, no special-status plants were observed on the Project site during field surveys.

In this section, special-status plants will be discussed under the following habitat types in which they would be expected to be found: annual grassland, vernal pools, depressional seasonal wetlands, riverine seasonal marsh, riverine perennial marsh, channel, and creek.

Annual Grassland Special-Status Plants

No special-status plants with potential to occur within the Project site are known to occur within annual grassland habitat. No special-status plants were observed within the annual grassland during field surveys. Impacts to annual grassland would have no impact on special-status plants. Although the Project would result in the removal of approximately 3.79 acres of annual grassland and temporary impacts to approximately 2.48 acres, this is a common habitat type within the region, and no special-status plants are known to occur or were observed during the field surveys within this vegetation community. Therefore, no mitigation measures are recommended.

Vernal Pool Special-Status Plants

The following special-status plants have potential to occur within vernal pools within the Project site: Ahart's dwarf rush, Boggs lake hedge hyssop, dwarf downingia, Ferris' goldfields, hogwallow starfish, legenere, Parry's rough tarplant, and valley brodiaea. No special-status plants were observed within the vernal pools during the field surveys. The Project site contains 0.30 acre of vernal pool habitat which represents suitable habitat for special-status plant species. Project construction would potentially result in temporary impacts to 0.03 acre of vernal pools and permanent impacts to 0.06 acre of vernal pools (**Figure 4-4**). Without mitigation, impacts to special-status plants potentially present within vernal pools

would be considered potentially significant. However, implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013), and **Mitigation Measures BIO-1 through BIO-3** (MM-6 through MM-8 in the NES) would reduce potential impacts to special-status plants be reduced to a less than significant level.

Depressional Seasonal Wetland Special-Status Plants

The following special-status plants have the potential to occur within the depressional seasonal wetlands that occur within the Project site: Boggs lake hedge hyssop, Delta tule pea, Ferris' goldfields, Heckard's pepper-grass, hoary navarretia, Mason's lilaeopsis, saline clover, Sanford's arrowhead, and wooly rose-mallow (Calflora 2023). None of these species were observed during field surveys.

As currently designed, the Project would potentially result in temporary impacts to 0.01 acre of depressional seasonal wetland habitat and permanent impacts to 0.01 acre of depressional seasonal wetland (**Figure 4-4**). Direct impacts could occur to special-status plant species, if present within onsite depressional seasonal wetlands, through removal of habitat, removal of individual plants by construction personnel or equipment, and impacting occupied habitat through accidental discharge into the depressional seasonal wetlands and depressional seasonal marsh during construction activities. Without mitigation, impacts to depressional seasonal wetland special-status plants may potentially be significant. However, with implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013), and **Mitigation Measures BIO-1 through BIO-3**,impacts to special-status plants would be reduced to a less than significant levels through completion of botanical surveys by a qualified botanist, installation of high-visibility construction fencing, and if necessary, implementation of a mitigation plan in consultation with USFWS and CDFW.

Riverine Seasonal and Perennial Marsh Special-Status Plants

The following special-status plants have the potential to occur within the riverine seasonal marshes and riverine perennial marshes that occur within the Project site: Ahart's dwarf rush, bristly sedge, hogwallow starfish, Mason's lilaeopsis, pappose tarplant, Peruvian dodder, saline clover, Sanford's arrowhead, side-flowering skullcap, Suisun Marsh aster, watershield, and wooly rose-mallow (Calflora 2023). None of these species were observed during the field surveys.

As currently designed, no impacts to riverine perennial or seasonal marsh habitat would result from development of the Project (**Figure 4-4**). Therefore, no special-status plants with potential to occur in these habitats would be impacted by the Project as these features will be avoided by Project design.

Wildlife

Several special-status wildlife species have the potential to occur within the Project site, including the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*); the federally endangered vernal pool tadpole shrimp (*Lepidurus packardi*); California Special Animals, California linderiella (*Linderiella occidentalis*), midvalley fairy shrimp (*Branchinecta mesovallensis*), the hairy water flea (*Dumontia oregonensis*) and Ricksecker's water scavenger beetle (*Hydrochara ricksecker*i); the State and federally threatened giant garter snake (*Thamnophis gigas*); the western pond turtle (*Actinemys marmorata*) a California Species of Special Concern and federally listed threatened species; the State threatened Swainson's hawk (*Buteo swainsoni*); the tricolored blackbird (*Agelaius tricolor*) a State threatened species; the State Fully Protected white-tailed kite (*Elanus leucurus*); the yellow-headed blackbird

(*Xanthocephalus xanthocephalus*) a California Species of Special Concern; and other migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Codes. A discussion of each species follows:

Vernal Pool Invertebrates

California linderiella is not a listed species but is identified on the CDFW Special Animal List. California linderiella is a relatively common branchiopod that occurs in vernal pools, swales, and ephemeral freshwater habitats. There are nineteen California Natural Diversity Database (CNDDB) occurrences documented within five miles of the Project site (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the Project provides suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

Midvalley fairy shrimp is not a listed species but is identified on the CDFW Special Animal List. This species occurs in small, short-lived vernal pools and grass-bottomed swales ranging from 4 to 663 square feet in area and averaging less than 4 inches in depth (Helm 1998). The midvalley fairy shrimp has been found on San Joaquin Silt Loam soils. There are nine CNDDB occurrences documented within five miles of the Project site (CDFW 2023). The vernal pool within Segment 1 of the Project provide suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

Vernal pool fairy shrimp are federally listed as Threatened. Vernal pool fairy shrimp are found in vernal pools, swales, depressional seasonal wetlands, and ephemeral freshwater habitats. These species are most commonly found in grassy or mud bottomed pools or basalt flow depression pools in unplowed grasslands. The pools vary in size from over 24 acres to only 0.005 acre. There are fifteen CNDDB occurrences documented within five miles of the Project site (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the Project provide suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

Vernal pool tadpole shrimp are federally listed as Endangered. Vernal pool tadpole shrimp are found in natural and artificial seasonally ponded habitats including: vernal pools, swales, depressional seasonal wetlands, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetlands range from very small (0.0005 acre) to very large (88 acres). There are nineteen CNDDB occurrences documented for this species within five miles of the Project site (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the Project site provide suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

The hairy water flea is identified on the CDFW Special Animal List. This species typically occurs in vernal pools, depressional seasonal wetlands, and other seasonal freshwater habitats. There are no CNDDB occurrences documented for this species within five miles of the Project site (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the Project provide suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

Ricksecker's water scavenger beetle is identified on the CDFW Special Animal list. This species is thought to occur in vernal pools, seeps, slow-moving streams, and ponds. Because very few specimens have been collected, information regarding the ecology of this species is relatively unknown. Specimens that have been collected have all occurred within the Central Valley and San Francisco Bay Area, and recent collections have occurred within a vernal pool near Sacramento (Short *et. al.* 2017). There are no CNDDB occurrences within five miles of the Project site (CDFW 2023). The vernal pool within Segment 1 of the Project provides suitable habitat for this species (**Figure 4-3** and **Figure 4-4**).

Survey Results. The vernal pool was dry at all field surveys except the March 15, 2023, survey. No focused survey was completed to determine the presence of vernal pool branchiopods within the pools as part of this NES, but suitable habitat is present for vernal pool branchiopods and invertebrates within the Project site as discussed above. No occurrences of vernal pool branchiopods or invertebrates are documented within the Project site (CDFW 2023).

Project Impacts. As currently designed, the Project has the potential to directly impact vernal pool branchiopods and invertebrates through impact or removal of up to 0.01 acre of depressional seasonal wetland habitat and 0.06 acre of vernal pool habitat (**Figure 4-4**). Permanent direct impacts could occur through ground disturbance of the soil, removal/fill of the wetlands through trail construction, or by altering the hydrology of the wetlands through trail construction thereby resulting in loss of occupied habitat or individuals. In addition, temporary impacts are anticipated to 0.03 acre of vernal pool and 0.01 acre of depressional seasonal wetland. However, all temporarily impacted aquatic resources will be restored to pre-project contours following trail construction. Implementation of **Mitigation Measure BIO-4** (MM-5 in the NES) would require compensatory mitigation through the purchase of vernal pool preservation credits at a conservation bank approved by the USFWS.

Without mitigation, potential impacts to suitable habitat for California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, hairy water flea, or Ricksecker's water scavenger beetle would be considered significant. Implementation of **Mitigation Measure BIO-4** would require compensatory mitigation for impacts to suitable habitat for vernal pool invertebrates and would therefore reduce impacts to a less than significant level.

Giant Garter Snake

Giant garter snake is a State and Federally Threatened species. The giant garter snake inhabits sloughs, marshes, low-gradient streams, flooded rice fields, ponds, irrigation ditches, and adjacent upland habitats. Although the Project site does not provide suitable habitat, this species is known to occur within inundated areas of Laguna Creek directly adjacent to the Project site. The Project site is also located within a portion of a designated giant garter snake conservation area identified under the 1996 Biological Opinion issued by the USFWS for the Lower Laguna Flood Control Project (Service File 1-1-96-F-51). This area is currently covered by deed restrictions and occurs in portions of Segment 1 of the Project (**Figure 4-3** and **Figure 4-4**). Potential suitable aquatic habitats within the Project site are however too small and shallow to support a giant garter snake population and were completely dry at the time of the field surveys. Eight occurrences of this species are documented within five miles of the Project site (CDFW 2023).

Survey Results. No giant garter snakes were observed during the field surveys. No suitable small mammal burrows or other refugia habitat was observed within the Project site. One occurrence is documented from 1987 in the Project site within the northwest portion of Segment 1.

Project Impacts. Suitable giant garter snake aquatic habitat is absent from the Project site but occurs directly adjacent to the Project site.

Without mitigation, impacts to giant garter snake would be considered potentially significant. With implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013) and **Mitigation Measures BIO-5 through BIO-14** (MM-9 through MM-18 in the NES), potential impacts would be reduced to a less than significant levels though completion of pre-construction surveys for giant garter snake, by a qualified biologist, and if

necessary, monitoring of suitable burrows, environmental awareness training for construction personnel, installation of exclusion fencing, designated staging areas and operation areas, and restoration of disturbed areas to pre-Project conditions.

Western Pond Turtle

The western pond turtle is designated as a Species of Special Concern by CDFW and is also proposed as threatened under the federal Endangered Species Act. The western pond turtle was proposed for listing by the USFWS on October 3, 2023, and the listing proposal is under public comment review until December 4, 2023. This species occurs in a variety of aquatic habitats such as ponds, creeks, ditches, lakes, and marshes. Areas with abundant vegetation and rocky or muddy substrate are preferred; and exposed banks or other basking areas, such as logs or cattail mats, are required. While the Project site does not provide suitable aquatic habitat, this species is known to occur within inundated portions of Laguna Creek directly adjacent to the Project site. Portions of Laguna Creek that occur within the Project site were completely dry at the time of the field surveys; which makes this segment of the creek unsuitable for western pond turtle. Although it is unlikely that this species would move beyond the upper banks of the inundated creek and into the annual grassland habitat within the Project site, overland movement or basking could occur within the Project site. Nesting is not expected to occur within the Project site based on the nature of the dense annual grassland habitat, the absence of areas with good sun exposure, and the presence of current walking trails within areas of little vegetation cover. Five occurrences of this species are documented within five miles of the Project site (CDFW 2023).

Survey Results. No western pond turtles were observed within the Project site during the field surveys. However, one western pond turtle was observed within Laguna Creek adjacent to the Project site. No documented CNDDB occurrences for western pond turtle occur within the Project site.

Project Impacts. While suitable aquatic habitat is absent within the Project site, suitable habitat occurs directly adjacent to the Project site in areas near the adjacent pond, Laguna Creek, and Elk Grove Creek. Direct impacts could result from movement of equipment or workers should a western pond turtle be present within the Project site during construction.

Without mitigation, potential impacts to western pond turtle would be considered potentially significant. With implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013) and **Mitigation Measures BIO-6 through BIO-15** (MM-10 through MM-19 in the NES) impacts would be reduced to a less than significant levels though environmental awareness training for construction personnel for western pond turtle, and if necessary, monitoring by a qualified biologist.

Western Spadefoot

Western spadefoot is designated as a Species of Special Concern by CDFW. This species inhabits open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, foothills, and river floodplains. The vernal pools and seasonal wetlands within the Project site provide suitable breeding habitat for western spadefoot. Although the soil within the Project site is too hard and compact to provide suitable burrow sites, soils outside of the Project site may be suitable for western spadefoot and the species may disperse into the Project site during the breeding season to utilize the aquatic habitats. No CNDDB occurrences of this species are documented within five miles of the Project site (CDFW 2023).

Survey Results. No western spadefoot were observed during the field surveys. However, species-specific surveys were not conducted to determine the presence of western spadefoot within aquatic habitat during the appropriate survey time (generally peak rainy season, about February to March).

Project Impacts. As currently designed, the Project would directly impact aquatic breeding habitat through impacts to 0.01 acre of depressional seasonal wetland habitat (**Figure 4-4**). Permanent direct impacts could occur through ground disturbance of the soil, removal/fill of aquatic habitat through trail construction, or altering hydrology of the wetlands through trail construction thereby resulting in loss of breeding habitat or individuals.

Without mitigation, potential impacts to western spadefoot would be considered potentially significant. With implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013) **Mitigation Measures BIO-16 and BIO-17** (MM-21 through MM-25 in the NES), impacts would be reduced to a less than significant levels through completion of pre-construction surveys for western spadefoot prior to implementation of construction activities, and, if necessary, monitoring and relocation consultation with CDFW.

Swainson's Hawk

Swainson's hawk is State listed as threatened. It is a long-distance migrant with nesting grounds in western North America. Swainson's hawks arrive in the Central Valley between March and early April to establish breeding territories. In the Central Valley, Swainson's hawk nest in isolated trees, small groves, or large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in suburban areas as well. Valley oak, Fremont cottonwood (*Populus fremontii*), and large willow trees (*Salix* spp.), ranging in height from 30 to 82 feet, are the most commonly used nest trees in the Central Valley (County of Sacramento 2007). Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, grasslands, irrigated pastures, alfalfa and other low-growing row crops. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and Van De Water 1994).

The California Department of Fish and Game has determined that parcels of land five acres or more in size are recognized to be the minimum acreage required for viable foraging habitat, and has identified in consultation with the City of Elk Grove that suitable foraging habitat for the Swainson's hawk exists in established land conservation programs in Sacramento County and also in agricultural and open lands currently not part of a conservation program (City of Elk Grove 2023a). A single occurrence dated 1990 is documented within Segment 2 of the Project site, and the most recent nest documented within ten miles of the Project site is dated 2011 (CDFW 2023).

Survey Results. No Swainson's hawks were observed during the field surveys. The trees within the Project site are too small to provide suitable nesting habitat but nesting may occur in trees adjacent to the Project site within adjacent residential properties or along Laguna Creek outside of the Project site.

Project Impacts. Nesting habitat is absent from the Project site. However, suitable nesting habitat is present adjacent to the Project site, and Swainson's hawks may have undocumented nesting locations in the vicinity of the Project site. In addition, the annual grassland habitat within the Project site may provide potential foraging habitat for this species. Temporary impacts from construction associated with Project could disturb nesting Swainson's hawk if they were to occur adjacent to the Project site during construction. The Project would permanently impact 3.79 acres and temporarily impact 2.48 acres of

potential foraging habitat for Swainson's hawk through the removal and alteration of annual grassland habitat (**Figure 4-4**). This is considered a potential loss of general foraging habitat.

Without mitigation, potential impacts to Swainson's hawk would be considered potentially significant. With implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013) and **Mitigation Measures BIO-18 through BIO-21** (MM-26 through MM-29 in the NES), impacts would be reduced to a less than significant levels through completion of protocol level pre-construction surveys for Swainson's hawk prior to implementation of construction activities, environmental awareness training for construction personnel, and, if necessary, establishment of appropriate buffers through consultation with CDFW, as well as the acquisition of a conservation easement(s) or other instrument suitable to preserve foraging habitat for the Swainson's hawk in accordance with either Section 16.130.040 or 16.130.110 of the Elk Grove Municipal Code.

Tricolored Blackbird

The tricolored blackbird is State listed as threatened and it is a colonial species that breeds in freshwater marshes of cattail (*Typha* sp.), bulrush (*Schoenoplectiella* sp. and *Isolepis* sp.), sedge (*Carex* sp.), and non-native vegetation including Himalayan blackberry (*Rubus armeniacus*). Nests occur in large colonies of up to thousands of individuals (NatureServe 2023). Nesting locations must be large enough to support a minimum colony of approximately fifty pairs (Zeiner *et. al.* 1990). This species forages in grasslands and agricultural fields with low-growing vegetation (Shuford and Gardladi 2008). Thirteen occurrences of this species are documented in the CNDDB within five miles of the Project site (CDFW 2023).

Survey Results. No tricolored blackbirds were observed within the Project site during field surveys. The Project site does not provide suitable breeding habitat for this species and the annual grassland provides marginal foraging habitat for this species. Tricolored blackbirds prefer to forage in grasslands with low-growing vegetation; the annual grassland within the Project site is comprised of tall, dense vegetation.

Project Impacts. There would be permanent and temporary loss of marginally suitable foraging habitat (3.79 acres of permanent impacts and 2.48 acres of temporary impacts to annual grassland) for tricolored blackbird associated with development of the Project (**Figure 4-4**). Removal of suitable foraging habitat would have a minimal effect on this species if tricolored blackbirds were currently utilizing portions of the Project site for foraging. However, no tricolored blackbirds were observed during field surveys and foraging habitat is not regulated under California Endangered Species Act (CESA). Breeding habitat is absent from the Project site and, therefore, nesting habitat will not be impacted.

Project implementation would have no impact on breeding habitat since none exists within the Project site. Although the Project would result in the permanent removal of 3.79 acres and temporary impacts to 2.48 acres of potential foraging habitat for this species, foraging habitat is not regulated under CESA. Implementation of the Project is, therefore, not expected to result in impacts to this species and no mitigation measures are warranted.

White-Tailed Kite

The white-tailed kite is State listed as a Fully Protected species. White-tailed kite is a year-round resident in coastal and valley lowlands in California that nests near the top of dense oaks, willows, or other large trees, especially near aquatic habitats.

Survey Results. One white-tailed kite was observed foraging within the Project site during the April 23, 2019 field survey. The onsite annual grassland provides suitable foraging habitat but nesting habitat for this species is absent from the Project site. However, nesting may occur in adjacent trees within residential properties or along Laguna Creek outside of the Project site.

Project Impacts. Development of the Project would result in permanent and temporary loss of suitable foraging habitat (3.79 acres of permanent impacts and 2.48 acres of temporary impacts to annual grassland) for white-tailed kite (**Figure 4-4**). Removal of suitable foraging habitat would have a minimal effect on this species given the amount of suitable foraging habitat within the vicinity of the Project site. Additionally, foraging habitat is not regulated by CDFW. Minor temporary disturbances to foraging habitat could result from Project construction but white-tailed kite would likely still utilize the Project site for foraging outside of the active construction areas. Temporary disturbances to nesting white-tailed kites could occur during construction should white-tailed kite nest within or adjacent to the Project site.

Without mitigation, potential impacts to white-tailed kite would be considered potentially significant. Implementation of Caltrans' Construction Site BMPs Manual (Caltrans 2017), the C*onstruction Site Monitoring Program Guidance Manual* (Caltrans 2013) and **Mitigation Measures BIO-22 through BIO-24** (MM-30 through MM-32 in the NES), impacts would be reduced to a less than significant levels through completion of pre-construction surveys for white-tailed kite prior to implementation of construction activities, environmental awareness training for construction personnel, and, if necessary, establishment of appropriate buffers through consultation with CDFW.

Yellow-Headed Blackbird

The yellow-headed blackbird is designated as a California Species of Special Concern. The species is an uncommon California migrant, summers from April to early October, and breeds from mid-April to late July (Twedt and Crawford 1995). This species typically nests in cattails, bulrush, reeds, and other tall emergent vegetation, always over water. They forage in grasslands, agricultural fields, and savanna habitats. The yellow-headed blackbird is generally a scarce breeder in the Sacramento Valley and is only known to nest within large marshes of wildlife refuges (Shuford and Gardladi 2008). Two occurrences for this species are documented within five miles of the Project site(CDFW 2023).

Survey Results. No yellow-headed blackbirds were observed during the field surveys. Foraging habitat is present within the Project site within the annual grassland habitat, but suitable nesting habitat is not present within the Project site.

Project Impacts. Development of the Project would result in permanent and temporary loss of suitable foraging habitat (3.79 acres of permanent impacts and 2.48 acres of temporary impacts to annual grassland) for yellow-headed blackbird (**Figure 4-4**). Removal of suitable foraging habitat would have a minimal effect on this species given the amount of suitable foraging habitat within the vicinity of the Project site. Additionally, foraging habitat is not regulated by CDFW and one known recent occurrence for this species is documented within five miles of the Project site (CDFW 2023).

Project implementation would have no impact on breeding habitat within the Project site, as no breeding habitat is present. Although the Project would result in the permanent removal of up to 3.79 acres of potential foraging habitat, foraging habitat is not regulated by CDFW. Therefore, impacts to this species are considered less than significant and no mitigation measures for this species are required.

Migratory Birds and Raptors

Migratory birds are protected under the MBTA of 1918 (16 U.S.C 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All raptors, including common species not considered special-status, are protected under the California Fish and Game Code (Section 3503.5). Removal or destruction of an active raptor nest is considered a violation of this Fish and Game Code.

Survey Results. No active nests were observed within the Project site during field surveys. The annual grassland and trees within the Project site provide nesting habitat for migratory birds and raptors during the nesting season (typically February 15 through August 31), and foraging habitat year-round. Large trees and structures adjacent to the Project site also provide nesting habitat, and a colony of nesting barn swallows (*Hirundo rustica*) was observed nesting under the western overpass at Bruceville Road.

Project Impacts. Development of the Project would have the potential to impact nesting migratory birds and raptors, through destruction of nests if present within the Project site during construction, through removal of trees should any active nests be present during tree removals, and/or through disturbance of nesting migratory birds and birds of prey during construction. Disturbance that results in nest abandonment could result in mortality of chicks or eggs.

Without mitigation, potential impacts to migratory birds and raptors under the MBTA would be considered potentially significant. Implementation of Caltrans' *Construction Site BMPs Manual* (Caltrans 2017), the *Construction Site Monitoring Program Guidance Manual* (Caltrans 2013) and **Mitigation Measures BIO-25 through BIO-27** (MM-33 through MM-35 in the NES), impacts would be reduced to a less than significant levels through completion of pre-construction surveys prior to implementation of construction activities, environmental awareness training for construction personnel, and, if necessary, establishment of appropriate buffers through consultation with CDFW.

Special status-species, midvalley fair shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, hairy water flea, Ricksecker's water scavenger beetle, giant garter snake, western pond turtle; western spadefoot, Swainson's hawk, tricolored blackbird, white-tailed kite, yellow-headed blackbird, and migratory birds and raptors, have the potential to occur within the Project site. With implementation of **Mitigation Measures BIO-1 through BIO-27**, impacts would be reduced to a **less than significant with mitigation incorporated**.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. Sensitive natural communities (SNC[s]), as defined by CDFW, present within the Project site include potential waters of the U.S., waters of the State, and northern hardpan vernal pools.

Waters of the U.S., Waters of the State, and Northern Hardpan Vernal Pools

Wetlands and other waters of the U.S. are considered sensitive by federal and State agencies and occur within the Project site. Of these features, northern hardpan vernal pools are also a SNC as identified by CDFW.

The USACE determines the extent of federal jurisdiction over wetlands and other waters of the U.S. on a case-by-case basis during the verification process. Areas deemed jurisdictional by the USACE are subject to the regulatory requirements of the Federal CWA, including permitting and mitigation associated with impacts to jurisdictional aquatic features.

A delineation of aquatic resources within the Project site was prepared by HELIX in June 2019, revised September 2019, and subsequently updated in 2020 (HELIX 2020). The USACE issued a Preliminary Jurisdictional Determination (PJD) on May 12, 2020 concurring with the January 3, 2020 *Figure 3, Aquatic Resources Delineation Map, Laguna Creek Trail and Bruceville Sidewalk Improvements Sacramento County, California* map prepared by HELIX documenting 0.52 acre of seasonal wetland, 1.44 acres of vernal pool, 0.20 acre of seasonal marsh, 0.15 acre of perennial marsh and 0.06 acre of open water within the original Project alignment (Appendix F of the **Attachment D**).

Following completion of the aquatic resources delineation, Segment 2 was realigned to be constructed adjacent to and directly north of Big Horn Boulevard. Additionally, a third 0.5-mile long segment, Segment 3, was removed from the project. No additional aquatic resources were observed in the revised trail alignment during follow up biological field surveys. Based on the 2020 PJD, and the lack of additional aquatic resources within the revised Segment 2 alignment, a total of 0.72 acre of aquatic features are delineated within the revised trail alignment. This acreage is comprised of 0.23 acre of depressional seasonal wetland, 0.30 acre of vernal pool, <0.01 acre of riverine seasonal marsh, 0.12 acre of riverine perennial marsh, 0.01 acre of channel, and 0.05 acre of creek (**Figure 4-3**).

As summarized below in **Table 4-2**, ***Biological Communities***, and shown on **Figure 4-4**, development of the Project would permanently impact a total of 0.07 acre of aquatic resources delineated within the Project site. An additional 0.04 acre of aquatic resources may be subject to temporary construction-related impacts. However, aquatic resources temporarily impacted by Project construction will be restored to pre-Project contours following construction of the trail.

Table 4-2
BIOLOGICAL COMMUNITIES

Biological Community	Permanently Impacted Acreage*	Temporary Impacted Acreage*	Avoided Acreage*	Total Acreage*
Annual Grassland	3.79	2.48	6.06	12.33
Depressional Seasonal Wetland	0.01	0.01	0.21	0.23***
Vernal Pool	0.06	0.03	0.21	0.30
Riverine Perennial Marsh	—	—	0.12	0.12
Riverine Seasonal Marsh	—	—	<0.01	<0.01
Channel	—	—	0.01	0.01**
Creek	—	—	0.05	0.05**
Disturbed/ Developed	0.80	0.74	5.61	7.15
Total Acres	***4.66***	***3.26***	***12.27***	***20.16***

Source: HELIX 2023.
Notes:
* Acreages calculated at 6 significant figures and subsequently rounded.
** Total includes 0.01 acre of Channel and 0.03 acre of Creek under the bridge structure at Bruceville Road, in addition to the summed total acreage of disturbed land accounting for the bridge structure
*** 0.03 Acre of depressional seasonal wetland has been filled as part of the Sheldon Farms North Project.

Without mitigation, impacts to aquatic resources would be considered potentially significant. Implementation of **Mitigation Measures BIO-28 through BIO-31** would reduce the impact to a less than significant level.

If development of the Project results in impacts to aquatic resources, then the Project proponent would be required to implement **Mitigation Measure BIO-28** requiring the City to obtain authorization under a CWA Section 404 Permit for any impacts to wetlands or other waters subject to federal jurisdiction. Impacts to federally jurisdictional aquatic resources would also require a 401 Water Quality Certification from the RWQCB under Section 401 of the CWA. In addition, implementation of **Mitigation Measure BIO-29** (MM-4 in the NES) would require submittal of a compensatory mitigation plan to the USACE and RWQCB proposing in-kind replacement of impacted waters of the U.S. at a minimum of a 1:1 ratio. Project-related impacts to aquatic resources may also require implementation of **Mitigation Measure BIO-30** requiring a Streambed Alteration Agreement with CDFW for impacts to resources subject to California Fish and Game Code Section 1602. Regulatory authorizations/permits will include terms and conditions to minimize impacts and to fully mitigate for any permanent impacts to wetlands and other waters.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant with Mitigation Incorporated. A total of 0.72 acre of aquatic features have been delineated within the Project site including, 0.23 acre of depressional seasonal wetland, 0.30 acre of vernal pool, 0.12 acre of riverine perennial marsh, <0.01 acre of riverine seasonal marsh, 0.01 acre of channel, and 0.05 acre of creek. Project impacts are summarized in **Table 4-2** above. Without mitigation, impacts to wetlands and other waters would be considered potentially significant. Implementation of **Mitigation Measures BIO-28 through BIO-31** would reduce impacts to less than significant levels.

Implementation of **Mitigation Measures BIO-28 through BIO-31** would require the City to obtain authorization for the placement of fill within any federally-jurisdictional waters, as well as waters of the State, including compliance with the USACE's no-net-loss of aquatic functions and values policy and would require that the City obtain 401 Water Quality Certification or a waiver from the Central Valley RWQCB and enter into a Streambed Alteration Agreement with CDFW for activities affecting resources subject to Fish and Game Code Section 1602. Compliance with current regulatory standards would ensure that development of the Project would not have a substantial adverse effect on State or federally-protected wetlands. Implementation of **Mitigation Measures BIO-28 through BIO-31** would reduce impacts to a level that is **less than significant with mitigation incorporated**.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact with Mitigation Incorporated. No active nests were observed within the Project site during the field surveys. The annual grassland and trees within the Project site provide suitable nesting habitat for migratory birds and raptors during the nesting season (typically February 15 through August 31), and foraging habitat year-round. Large trees and structures adjacent to the Project site also provide nesting habitat, and a colony of nesting barn swallows (*Hirundo rustica*) was observed nesting under the western overpass at Bruceville Road. Project implementation could result in impacts

to nesting migratory birds through destruction of nests if present within the Project site during construction, through removal of trees should any active nests be present during tree removals, or through disturbance of nesting migratory birds and birds of prey during construction that results in nest abandonment could result in mortality of chicks or eggs. Without mitigation, impacts would be potentially significant. Implementation of **Mitigation Measures BIO-25 through BIO-27** would reduce impacts to a level that is **less than significant within mitigation incorporated**.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant with Mitigation Incorporated. The City has adopted regulations for the protection and preservation of existing trees within the City.

Elk Grove Municipal Code, Chapter 19.12, Tree Preservation

The City regulates the removal, pruning, and impacts to protected trees under the Tree Preservation and Protection Ordinance (Elk Grove Municipal Code, Chapter 19.12). Trees protected under the Elk Grove Municipal Code, Chapter 19.12 include:

- Landmark trees: "a tree that has been determined and designated, by resolution of the City Council, to be of high value to the community because of its species, size, age, form, historical significance, or some other professional criterion;"

- Trees of local importance: Coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), oracle oak (*Quercus X moreha*), California sycamore (*Platanus racemosa*), and California black walnut (*Juglans hindsii*);

- Secured trees: "A tree of local importance retained during the course of review and approval of a discretionary development project, inclusive of the environmental review process as required by CEQA; and those trees planted as a result of a discretionary development project to satisfy a mitigation requirement under this chapter, an approved or certified CEQA document, or other regulation;" and

- Trees within the right-of-way or on City property that are qualifying landmark trees, secured trees, and/or trees of local importance.

An International Society of Arboriculture (ISA)-Certified Arborist surveyed the Project site to inventory all trees within the trail alignment. Results of the survey are summarized below and included in the *Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project Arborist Report* (Arborist Report) (HELIX 2019), which is attached to this Initial Study as **Attachment E**. Following completion of the Arborist Report, the Project site was revised and Segment 2 was realigned to be constructed adjacent to and directly north of Big Horn Boulevard. Segment 3, a 0.5-mile long segment to be constructed from Lewis Stein Road to Bruceville Road north of Laguna Creek, was removed from the project. No additional trees were observed in the revised trail alignment during follow up biological field surveys.

A total of 54 trees were inventoried within the Project site, consisting of three Callery pear (*Pyrus calleryana*), two Canary Island date palms (*Phoenix canariensis*), 15 black walnut (*Juglans hindsii*), one Fremont cottonwood (*Populus fremontii*), 12 white poplars (*Populus alba*), 16 Chinese pistache (*Pistacia*

chinensis), and five valley oaks (*Quercus lobata*). Additionally, four dead trees were mapped within the Project site.

Only 20 of the surveyed trees are protected under the Elk Grove Municipal Code, Chapter 19.12. Of these protected trees, 14 are recommended for removal due to poor condition. As shown on **Figure 4-4** and summarized in **Table 4-3**, ***Trees Proposed for Removal,*** below, Project construction would require the removal of 11 trees, three (3) of which are black walnuts and protected by the Elk Grove Municipal Code, Chapter 19.12. Of the three protected trees proposed for removal, two (2) are recommended for removal due to poor condition. Approval of a Tree Removal Permit would be required prior to any removal or work conducted within the critical root zone of any protected tree.

Table 4-3
TREES PROPOSED FOR REMOVAL

Tree #	Tree Species	# of Trunks	DSH (inches)	DLR (feet)	Height (feet)	Condition		Protected Tree?	Recommended for Removal?
						Health	Structure		
755	Black Walnut	5	7,9,9, 11,5	17	20	Poor-Fair	Poor	**Yes**	**Yes**
756	Black Walnut	3	10,8,9	10	12	Poor-Fair	Poor-Fair	**Yes**	**Yes**
757	White Poplar	1	6	8	17	Poor-Fair	Poor-Fair	No	**Yes**
758	White Poplar	1	4	6	15	Poor-Fair	Poor	No	**Yes**
759	White Poplar	2	11,10	12	22	Fair	Poor-Fair	No	**Yes**
760	White Poplar	2	4,7	22	17	Poor-Fair	Poor	No	**Yes**
761	White Poplar	1	8	8	27	Fair	Poor-Fair	No	**Yes**
762	White Poplar	3	10,9,7	15	22	Fair	Poor-Fair	No	**Yes**
763	White Poplar	3	6,11,9	12	20	Fair	Poor-Fair	No	**Yes**
764	White Poplar	1	5	8	10	Poor-Fair	Poor	No	**Yes**
769	Black Walnut	13	2,4,3,4, 4,4,4,3, 3,5,6,5, 7	15	17	Fair	Fair	**Yes**	**No**

Source: HELIX 2019.
Notes:
DLR = dripline radius (length from trunk to tip of longest lateral limb)
DSH = diameter at standard height (54 inches above grade)

Although the Project would involve the removal of 3 protected trees, Project construction would minimize the number of trees removed to the extent feasible. However, development of the Project would have the potential to result in impacts to trees protected by the Elk Grove Municipal Code, Chapter 19.12, resulting in potentially significant impacts.

With implementation of **Mitigation Measure BIO-32** requiring the Project proponent obtain a Tree Removal Permit in accordance with Elk Grove Municipal Code, Chapter 19.12 and **Mitigation Measure BIO-33** requiring implementation of tree projection measures, potential impacts would be reduced to a less than significant level with mitigation incorporated.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant with Mitigation Incorporated. No Habitat Conservation Plan, Community Conservation Plan, or other or other approved local, regional or State Habitat Conservation Plan are applicable to the Project. However, the Project site is within multiple parcels identified as a giant garter snake conservation area by the USFWS and the USACE. These areas were established for purposes of mitigating Sacramento County's Lower Laguna Flood Control Project implemented in the late-1990s. The Biological Assessment will be reviewed by USFWS during Section 7 consultation with Caltrans (the National Environmental Policy Act [NEPA] lead agency). Implementation of **Mitigation Measure LU-1** (detailed under **Section 4.11**, ***Land Use and Planning***) would reduce impacts to deed restricted parcels to a level that is **less than significant with mitigation incorporated**.

4.4.2 Mitigation Measures

BIO-1 A qualified USFWS- and CDFW-approved biologist shall conduct botanical surveys within the typical identification periods for all potentially occurring special-status plant species within suitable habitat prior to commencement of construction activities. For the special-status plant species that may potentially occur, two rounds of focused plant surveys would be necessary to survey within the typical identification periods for all potentially occurring special-status plants. The first round of surveys would be conducted in March or April and the second round of surveys would be conducted in May or June. If no special-status plants are observed, then a letter report documenting the results of the survey will be provided to the Project proponent for their records, and no additional measures with respect to special-status plants are recommended.

BIO-2 If any special-status plants are found within the Project site, they should be avoided to the extent feasible. The plant locations will be identified on a map, and an agency-approved buffer will be established around the plants with high visibility construction fencing. The construction fencing will remain intact until construction is complete.

BIO-3 If special-status plants cannot be avoided, then a mitigation plan will be prepared in consultation with CDFW. CDFW would need to approve the mitigation plan prior to commencement of construction activities that would impact special-status plants.

BIO-4 Onsite vernal pool and depressional seasonal wetlands represent suitable habitat for special-status plant species and vernal pool branchiopods and invertebrates. If avoidance is not feasible, then impacts to suitable vernal pool habitat shall be mitigated at a 3~~2~~:1 ratio (three~~two~~ acres mitigated for every acre lost) or as determined through consultation between USFWS and Caltrans. Mitigation shall be accomplished through preservation of suitable vernal pool habitat or purchase of vernal pool preservation credits at a USFWS-approved conservation bank prior to commencement of activities within suitable habitat. Final habitat acreages, mitigation ratios, and other Project-specific compensatory requirements shall be determined through consultation between USFWS and Caltrans.

BIO-5 Ground-disturbing work shall take place during the GGS active season, if feasible, while snakes are more likely to avoid potential disturbances. The general active season for GGS is May 1 – October 1 but seasonal weather patterns should be considered during construction to provide flexibility.

BIO-6 A USFWS-approved qualified biologist shall conduct a pre-construction survey for giant garter snake within 24 hours prior to the commencement of any construction activity within 200 feet of potential giant garter snake aquatic habitat. The qualified biologist shall provide a field report of the survey results that shall be made available to the USFWS within one (1) week of the completion of the survey.

The Project area shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred within suitable habitat areas.

BIO-7 If giant garter snake or suitable burrows are observed within the Project site during the pre-construction survey, the USFWS-approved biologist shall monitor all ground-disturbing activity within the suitable habitat area.

BIO-8 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of work and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel shall sign a form stating that they have attended the training and understand all the measures. Proof of this instruction shall be kept on file with the Project proponent. The Project proponent shall provide the USFWS and CDFW with a copy of the training materials and copies of the signed forms indicating that training has been completed. If new construction personnel are added to the site, the crew foreman shall ensure that the personnel receive the mandatory training before starting work. Copies of signed forms shall be submitted monthly as additional training occurs for new employees. The crew foreman is responsible for ensuring that construction personnel adhere to the guidelines and restrictions.

BIO-9 Exclusion fencing shall be installed along the outer edge of work along the northern edge of Segment 1 in the areas of the adjacent pond (located east of Mannington Street and north of Monterey Oaks Drive) and adjacent to Sacramento County's Lower Laguna Flood Control Project deed restricted parcels, the depressional seasonal wetland (located east of Lyndale Circle and north of Big Horn Boulevard), and along the vernal pool west of Bruceville Road.

BIO-10 A USFWS-approved biologist will inspect the exclusion fencing weekly, and the fencing will be maintained until the end of construction. If a GGS is found onsite during construction, all activities will stop until the GGS leaves the construction area on its own. The USFWS will be notified within 24 hours of any GGS observations. No handling or capture of a GGS will occur.

BIO-11 During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.

BIO-12 Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any aquatic habitat.

BIO-13 The use of erosion control materials potentially harmful to GGS and other species such as mono-filament netting or similar material will be prohibited. Tightly woven fiber netting or similar material will be used to ensure GGS do not get trapped or entangled. To avoid entrapment of GGS, trenches will be covered overnight or escape ramps installed. Any pipes or hoses will be sealed with duct tape or equally effective means so that no GGS can enter them. Alternatively, pipes and hoses may be stored at least 3 feet above ground or within a part of the staging area surrounded by exclusionary fence.

BIO-14 After completion of construction activities, the Project proponent, or its contractor, shall remove all stockpiled material and construction debris and, wherever feasible, restore disturbed areas to pre-Project conditions.

BIO-15 Impacts to western pond turtle will be avoided through implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures: Ground-disturbing work shall take place during the western pond turtle active season, if feasible, while turtles are more likely to avoid potential disturbances. The general active season for western pond turtle is March 1 – November 1 but seasonal weather patterns should be considered during construction to provide flexibility.

BIO-16 If possible, construction shall occur outside of the breeding and dispersal season (October through May) for western spadefoot to avoid impacts to breeding populations and aquatic metamorphs. It should be noted, this work window conflicts with the GGS and western pond turtle active season work windows as described in Mitigation Measures BIO-5 and BIO-15 (MM-9 and MM-19 in the NES). See Mitigation Measure BIO-17 (MM-22 in the NES) below for guidance if work occurs within the western spadefoot breeding and dispersal season.

BIO-17 If construction occurs within the breeding and dispersal season, a pre-construction survey shall be conducted by a qualified biologist within the appropriate survey window to determine the presence of western spadefoot within the Project site:

a. If western spadefoot are observed within the Project site, then additional measures such as a qualified biologist conducting a pre-construction survey within 24 hours prior to commencement of construction activities, conducting a pre-construction worker awareness training, and being present to monitor construction during initial vegetation clearing and ground disturbance shall be required.

b. If no western spadefoot are observed within the Project site, then a letter report regarding survey results shall be made available to the Project proponent and no additional avoidance and mitigation measures for the species are recommended.

c. If a western spadefoot is observed within the construction zone, then all work shall immediately halt in the vicinity of the animal and the animal will be allowed to leave the area on its own will. If the animal is in immediate danger and needs to be relocated, then it shall be safely relocated outside of the construction zone within suitable habitat and at a

safe distance from all construction related activities. No work shall resume until the animal is outside of the construction zone.

BIO-18 A qualified biologist shall conduct an environmental awareness training for all construction personnel. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.

BIO-19 Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.5 mile of the Project site where legally permitted to directly access; all suitable nest trees within 0.5 mile of the Project site shall be surveyed using binoculars from legally accessible areas. If no active Swainson's hawk nests are identified within 0.5 mile of the Project site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the Project proponent and CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.

BIO-20 If active Swainson's hawk nests are found within 0.5 mile of the Project site, then a qualified biologist shall contact the Project proponent and the CDFW within one day following the pre-construction survey to report the findings. Should an active nest be present within 0.5 mile of Project site, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing should be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.5 mile of the nest. Should the qualified biologist determine that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until the CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the Project proponent and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are recommended.

BIO-21 The Project proponent shall comply with the City of Elk Grove Swainson's Hawk Code (Chapter 16.130) to mitigate for the loss of foraging habitat.

BIO-22 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training for active white-tailed kite nests should be similar to the training described for Swainson's hawk. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.

BIO-23 A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities if anticipated to commence during the nesting season (between February 15 and August 31). An additional pre-construction survey

should be conducted within 72 hours of commencement of ground-disturbing activities. During the surveys, suitable nest trees adjacent to the Project site shall be surveyed using binoculars from legally accessible areas. If the pre-construction survey documents that there is no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, then an additional pre-construction survey shall be conducted.

BIO-24 If suitable nesting habitat or wintering habitat features are present for white-tailed kite on or within 0.25-mile of the Project site, or if nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall conduct surveys within 0.25-mile of the Project area within 14 days and again within 3 calendar days prior to the start of Project activities during the nesting season (February 1 – August 31). Surveys shall be done during the appropriate time of day to maximize detectability and shall concentrate on suitable nesting structures for the species. If an active nest is discovered during the survey or during construction, a qualified biologist shall establish a minimum 0.25-mile no disturbance buffer around active nests to start until the nesting season has ended or until the qualified Biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Permittee shall halt any Project activities that could affect the foraging or feeding behavior of WTKI. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance. ~~establish a minimum ¼-mile buffer zone around active nests to start until the nesting season has ended or until the qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival.~~ The biologist will mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. The nest buffer should be assessed for effectiveness and may require increase or decrease in size depending on the birds' tolerance level to the disturbance. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.

BIO-25 If construction is expected to occur during the nesting season (February 15 through August 31), then a qualified biologist will conduct an environmental awareness training for all construction personnel. The training will include information pertaining to the potential for active nests to occur within the Project site and procedures to follow in the event that an active nest is found during construction.

BIO-26 If feasible, then construction and any tree/shrub removal should be completed between September 1 and February 14, outside of the nesting season.

BIO-27 If construction begins during the nesting season (February 15 through August 31), then a pre-construction nesting bird survey shall be conducted within 7~~14~~ days prior to the commencement of construction activities and vegetation removal. If the pre-construction survey results in no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If active nests are located within or directly adjacent to the Project site then the following shall occur:

a. If any active nests are located, then a qualified biologist shall establish an appropriate species-specific buffer zone (generally a 500~~75~~-foot standard buffer for most songbirds, a 0.5-mile ~~300-foot~~ standard buffer for most raptors, and ~~up to~~ a buffer of 0.5-mile~~,1320-2,640 feet~~ for Swainson's hawk) around the nests. The buffer may need to be increased based on the birds/ tolerance level to the disturbance; the qualified biologist will confirm whether or not the buffer is sufficient to avoid take/nest failure and will increase the buffer if needed. The qualified biologist shall mark the buffer zone with highly visible flagging or pin flags and maintain the buffer zone until all construction has been completed, until the end of the breeding season, or until the young have successfully fledged and/or the nest is no longer active. A qualified biologist will monitor active nests weekly during construction to evaluate potential nesting disturbance caused by construction activities. If establishing the typical buffer zone is impractical, then the qualified biologist may reduce the buffer depending on the species, and daily monitoring is also recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied or that it has been determined that nesting activity is not negatively affected by adjacent Project construction activities. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and the CDFW for their records. Monitoring of potential nesting activities in the Project site should continue, at a minimum, until the end of the avian nesting season (September 1). If a lapse in Project-related work of 7 calendar days or longer occurs, the qualified biologist shall complete another focused survey before Project activities can be reinitiated.

BIO-28 Prior to commencement of ground disturbing activities, the City shall obtain all required regulatory authorizations from the USACE and RWQCB for the discharge of dredged or fill material within waters of the U.S. and/or waters of the State.

BIO-29 To mitigate for the permanent loss of waters of the U.S. resulting from development of the Project, the City shall submit a compensatory mitigation plan to the USACE and RWQCB proposing in-kind replacement of impacted waters of the U.S. at a minimum 1:1 ratio, or as otherwise required by the USACE and RWQCB.

BIO-30 Prior to commencement of activities within resources subject to Fish and Game Code Section 1602, the City shall enter into a Streambed Alteration Agreement with CDFW.

BIO-31 All aquatic resources delineated within the Project site are likely to be determined to be classified either as waters of the U.S. and/or waters of the State. If it is determined that some of the aquatic resources within the Project site are not subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the Project result in impacts to these features. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge shall be filed for impacts to non-federal waters, if required.

BIO-32 Prior to ground-disturbing activities and any tree removal, a Tree Removal Permit shall be obtained from the City, and the Project proponent shall comply with all of the conditions of the permit. As part of the approval of a tree permit for removal of a tree(s), the approving authority shall require mitigation for the loss of the tree consistent with Article IV (Mitigation for Tree Loss) of Chapter 19.12 of the Municipal Code. A tree preservation plan shall be prepared for the Project identifying all protection and mitigation measures to be taken. The measures shall remain in place for the duration of construction activities at the Project site. The tree preservation plan shall be submitted to and approved by the City Arborist.

BIO-33 Tree Protection Measures

- Tree Protection Fencing, consisting of chain link or four-foot tall, brightly-colored, high-visibility plastic fencing, shall be placed around the perimeter of the critical root zone (CRZ) (one foot per inch of trunk diameter) or dripline radius + 1 foot, whichever is greater. This is the minimum distance for placing protective fencing. Tree protection fencing should be placed as far outside of the CRZ as possible. Signs shall be placed along the fence denoting this as a "Tree Protection Zone" that shall not be moved until construction is complete. Trees or tree clusters with canopy extending beyond 50 feet from Project boundaries may be fenced only along sides facing the Project. In cases where work infringes on the CRZ, fence shall be placed at edge of work;

- Whenever possible, fence multiple trees together in a single CRZ;

- Tree protection fencing shall not be moved without prior authorization from the Project Arborist and the City, as appropriate;

- No parking, portable toilets, dumping or storage of any construction materials, grading, excavation, trenching, or other infringement by workers or domesticated animals is allowed in the CRZ;

- No signs, ropes, cables, or any other items shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist;

- No tree-toxic materials shall be dumped on the Project site (e.g., gasoline, herbicide, salt);

- Prior to the installation of new asphalt, weed control chemicals shall not be applied where they can leach into the dripline of any protected tree.

- Underground utilities should be avoided in the CRZ, but if necessary, shall be bored or drilled. If boring is impossible, all trenching will be done by hand under the supervision of an ISA-Certified Arborist;

- No cut or fill within the dripline of existing protected tree is permitted except as shown on the final development plans. If cut or fill within the dripline is unavoidable, any mitigation requirements shall be determined by the City, as appropriate;

- Pruning of any retained tree shall be done under the supervision of an ISA-Certified Arborist and in accordance with current ISA standards and ANSI A300 standards;

- All wood plant material smaller than six inches in diameter shall be mulched on site. Resulting mulch shall be spread in a layer four to six inches deep in the CRZ of preserved trees. Mulch shall not be placed touching the trunk of preserved trees; and

- Appropriate fire prevention techniques shall be employed around all significant trees to be preserved. This includes cutting tall grass, removing flammable debris within the CRZ, and prohibiting the use of tools that may cause sparks, such as metal blade trimmers or mowers.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	■	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	■	☐	☐

The discussion below is largely based on the following: *Historic Property Survey Report* (HPSR), *Archaeological Survey Report* (ASR) (Cogstone 2024a), and *Findings of No Adverse Effect/ESA Action Plan* (Cogstone 2024b) attached to this Initial Study as **Attachment F**.

4.5.1 Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less Than Significant Impact with Mitigation Incorporated. A California Historical Resources Information System (CHRIS) records search was conducted by the North Central Information Center (NCIC) on April 15, 2019. A total of 44 cultural resources investigations have been completed previously within a one-mile radius of the Project site. Of these, four studies included portions of the Project site. Tim Spillane, Cogstone Principal Investigator for Archaeology, completed the intensive pedestrian survey of the entire Project site on June 12, 2019.

4.5.1.1 Cultural Resources Within or Adjacent to the Project Impact Area

Archaeological Site

Archaeological site (P-34-005386/CA-SAC-001278H) is also located within the Project site and consists of historic-era foundations and a refuse scatter. Phase II testing was conducted from November 16 to November 23, 2020. After clearing the site of brush, a total of eight (8) surface features were recorded, including one feature that resulted in an expansion of the resource boundary to the west. This new area was not included in the Phase II excavations and, thus, was not evaluated for its eligibility for listing in the National Register of Historic Places (NRHP) under Criterion D. The tested portion of the site did not have subsurface cultural deposits that aid in answering the research questions posed, or otherwise yield important information about the past. No artifacts specifically related to farming and agriculture, attributable to specific gender or age groups, or that contain evidence of modification for use by specific gender or age groups or for agricultural used were found. The tested portion of the is recommended as non-contributing to eligibility for listing in the NRHP under Criterion D. As a portion of the site remains untested and unevaluated for NRHP eligibility under Criterion D, Caltrans assumed the unevaluated portion of P-34-005386/CA-SAC-001278H as eligible for inclusion in the NRHP for purposes of this Project only. Given this assumption of eligibility, Project-related impacts to the unevaluated portion of the site would be considered potentially significant. However, implementation of **Mitigation Measures**

CUL-1 through CUL-6, would reduce potential impacts to cultural resources to less than significant levels.

4.5.1.2 Other Resources

Laguna Creek Bridge 24C0405

Bridge 24C0405 (Laguna Creek Bridge) is located within the Project site. Bridge 24C0405 Laguna Creek has been evaluated by Caltrans as a Category 5 bridge and determined to be not eligible for listing on the NRHP.

Olen Ranch Complex

The Olen Ranch Complex (P-34-000707/CA-SAC-549H), is located within the Project site at 8860 Bruceville Road south of Sheldon Road. The Olen Complex was recorded in 1995 as a small ranch consisting of a house, barn, milk house, shed, and mobile home. P-34-000707/CA-SAC-549H is listed in the Office of Historic Preservation, Built Environmental Resources Directory, and has status 6Y, determined ineligible for the National Register by consensus through Section 106 process. Project improvements at the location of P-34-000707/CA-SAC-549H include a sidewalk segment which is located along the eastern border of the Olen Complex. Results of the pedestrian survey on June 12, 2019, found the entire complex of structures demolished and the site cleared since its documentation in 1995. No structural features or artifacts of any kind were observed. Ground visibility was fair (50 percent) due to vegetation overgrowth. Although the record search identified it as a resource within the Area of Potential Effect (APE), it has since been removed and is therefore not considered as a potential historical resource within the Project site.

4.5.1.3 Conclusions

In summary, two cultural resources are present within the Project site, including one historic built environment resource and one historic archaeological site. The historic built environment resource includes the Laguna Creek Bridge (240405). The Laguna Creek Bridge was previously evaluated by Caltrans and determined not to be eligible for listing in the NRHP or California Register of Historic Places (CRHP).

Archaeological site (P-34-005386/CA-SAC-001278H) is also located within the Project site and consists of historic foundations and refuse scatter. Phase II testing was conducted from November 16 to November 23, 2020. After clearing the site of brush, a total of eight (8) surface features were recorded, including one feature that resulted in an expansion of the resource boundary to the west. This new area was not included in the Phase II excavations and thus the portion of site (P-34-005386/CA-SAC-001278H) was not evaluated for its eligibility for listing in the NRHP. The tested portion of the site did not have subsurface cultural deposits that aid in answering the research questions posed, or otherwise yield important information about the past and is recommended as non-contributing to eligibility for listing in the NRHP under Criterion D. As a portion of the site remains untested and unevaluated for NRHP eligibility under Criterion D, Caltrans assumed the unevaluated portion of P-34-005386/CA-SAC-001278H as eligible for inclusion in the NRHP for purposes of this Project only. Given the assumption of eligibility, due to the lack of evaluation for the portion of the resource located outside of the Project site, project-related impacts would be considered potentially significant without mitigation incorporated. As discussed above, the Laguna Creek Bridge has been determined not eligible for listing under the National Historic Preservation Act (NHPA) or the CRHP. Therefore, Project development would not result in impacts to

this resource as an historic resource under CEQA. However, Caltrans has assumed eligibility for archaeological resource P-34-005386 under the NHPA. Therefore, archaeological resource P-34-005386 is also assumed eligible for listing on the CRHP. The portion of P-34-005386 that was subjected to Phase II testing did not yield intact cultural deposits that aid in answering the research questions. Therefore, the tested portion of the site is not considered a contributing element to a Historic Property. The portion of P-34-005386 located outside of the Project site has not been evaluated and therefore any impacts to this portion of the resource could result in significant impacts to an historic resource, if the potential for this resource to yield data was affected. Implementation of **Mitigation Measures CUL-1 through CUL-4** would require definition of the boundaries of the unevaluated portion of P-34-005386 as an Environmentally Sensitive Area (ESA) within construction documents, construction exclusion fence installation and spot monitoring to prevent any potential impacts to the resource.

In addition, the possibility exists that construction of the Project could result in inadvertent discovery of and potential impacts to archaeological resources. **Mitigation Measure CUL-5** outlines the steps that would be taken to halt work and coordinate with United Auburn Indian Community of the Auburn Rancheria (UAIC) and Wilton Rancheria if an inadvertent discovery is made. **Mitigation Measure CUL-6** discusses the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training.

Implementation of Mitigation Measures **CUL-1 through CUL-6** would reduce potential impacts to **less than significant with mitigation incorporated**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact with Mitigation Incorporated. As discussed in answer "a," the Laguna Creek Bridge has been determined not eligible for listing under the NHPA or the CRHP. Therefore, Project development would not result in impacts to this resource as an historic resource under CEQA. However, Caltrans has assumed eligibility for archaeological resource P-34-005386 under the NHPA. Therefore, archaeological resource P-34-005386 is also assumed eligible for listing on the CRHP. The portion of P-34-005386 located within the Project site has been subjected to Phase II testing and did not yield intact cultural deposits and is therefore not considered a contributing element to a Historic Property. The portion of P-34-005386 located outside of the project site has not been evaluated and therefore any impacts to this portion of the resource could result in significant impacts to an historic resource, if the potential for this resource to yield data was affected. The tested portion of the site did not have subsurface cultural deposits that would aid in answering the research questions posed, or otherwise yield important information about the past, and is recommended as non-contributing to eligibility for listing in the NRHP under Criterion D. Implementation of **Mitigation Measures CUL-1 through CUL-4** would require definition of the boundaries of the unevaluated portion of P-34-005386 within construction documents, construction exclusion fence installation and spot monitoring to prevent any potential impacts to the resource. **Mitigation Measure CUL-5** outlines the steps that will be taken to halt work and coordinate with UAIC and Wilton Rancheria if an inadvertent discovery is made. **Mitigation Measure CUL-6** discusses the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training. Implementation of **Mitigation Measures CUL-5 and CUL-6** would reduce the potential impact to **less than significant with mitigation incorporated**.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact with Mitigation Incorporated. During preparation of the ASR/HPSR, there was no indication of known human remains within the Project site. However, the potential exists for inadvertent discovery during construction; without mitigation the Project could have a potentially significant impact on human remains. Implementation of **Mitigation Measures CUL-5 and CUL-6** would reduce the potential impact to **less than significant with mitigation incorporated**.

4.5.2 Mitigation Measures

CUL-1 No project-related activities (e.g., grubbing, staging, equipment parking/storage, traffic handling signage, etc.) shall take place within the ESA located within the unevaluated portion of P-34-005386 (CA-SAC-001278H) shown on Figure 4 of the September 2021 *Finding of No Adverse Effect for the Laguna Creek Trail and Bruceville Road Sidewalk improvements Project, Sacramento County, California*.

CUL-2 At least two weeks prior to commencing construction, the construction contractor, in consultation with the City Project Engineer and the Caltrans Archaeologist, will delineate the boundaries of the ESA. Construction exclusion fence surrounding the ESA outside of the Project Impact Area shall be installed one calendar week prior to the initiation of work near the archaeological site.

CUL-3 Information contained in the final ESA Action Plan shall be included within the Permits, Agreements and Mitigation Form and shall be included on the Project specification and estimates package. The importance of the ESA, as well as the prohibition of any activities within the ESA, shall be relayed to the construction contractor and personnel during a pre-Project Worker Awareness Training conducted prior to commencement of Project construction. The importance of ESA shall be discussed with construction personnel, and it will be stressed that no construction activity (including storage or staging of equipment or materials) should occur within the ESA and that workers must remain outside of the ESAs at all times. Additionally, personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.

CUL-4 The Caltrans Archaeologist shall be notified five business days prior to commencement of work in the area of the ESA. The Caltrans Archaeologist shall conduct weekly drop-in monitoring of the ESA area to ensure no breaching of the ESA.

CUL-5 If Native American cultural materials are discovered during Project construction, then all work shall halt within 100 feet of the discovery and the Resident Engineer shall be immediately notified. The City shall contact the United Auburn Indian Community of the Auburn Rancheria (UAIC) and the Wilton Rancheria regarding the discovery. The Resident Engineer, the City, an archaeologist meeting the Secretary of the Interior's Standards in Archaeology, the UAIC, and the Wilton Rancheria shall assess the discovery to determine if it qualifies as a Tribal Cultural Resource. The appropriate treatment of the discovery, including any applicable avoidance or mitigation strategies, shall be determined in consultation with the City, the UAIC, and the Wilton Rancheria. Construction activities will not commence until the appropriate treatment has been determined and any applicable mitigation has been completed. Mitigation shall follow the recommendations detailed in Public Resources Code sections 21084.3(a) and (b), and CEQA Guidelines section 15370.

CUL-6 Worker environmental training will include archaeological and Tribal Cultural Resource awareness. The training shall be developed in coordination with the UAIC and the Wilton and will be provided prior to commencement of Project construction activities for all personnel working within the Project site. The training will identify the appropriate point of contact in the case of Tribal Cultural Resource discovery and will include relevant information regarding Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also underscore the requirement for confidentiality and culturally appropriate treatment of Tribal Cultural Resources.

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	■

4.6.1 Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less Than Significant Impact. The Project includes two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings as well as sidewalk improvements on the west side of Bruceville Road. During construction, various heavy equipment and vehicles would be used. Unnecessary consumption of energy resources would be avoided through implementation of SMAQMD's Basic Construction Emission Control Practices and compliance with Caltrans Standard Specifications Section 14 and 14-9.02, as described in the Project Description, under Construction Protocols. Impacts on energy related to operation and construction of the Project would be **less than significant**.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Project aligns with several City Land Use and Mobility General Plan policies related to energy consumption (City of Elk Grove 2021a). General Plan Policy LU-2-4 seeks to "*promote pedestrian and bicycle mobility*" for infill development and General Plan Policy LU-4-1 seeks to "*prioritize pedestrian and bicycle access*" to activity centers. General Plan Policy MOB-3-7 seeks to "*develop a complete and connected network of sidewalks, crossings, paths, and bike lanes that are convenient and attractive, with a variety of routes in pedestrian-oriented areas*" and General Plan Policy MOB-4-3 seeks to "*prioritize infrastructure improvements that benefit bicycle and pedestrian safety and convenience around community facilities and locations in activity centers and other pedestrian-oriented areas over vehicle efficiency improvements.*" The Project would implement these policies, amongst others, promoting alternative modes of transportation that are safe, continuous, and easily accessible for non-motorized transportation by developing direct connection between trail segments separated by a roadway eliminating the need for trail users to divert from the trail to the nearest signalized intersection. The Project would have **no impact** on renewable energy or energy efficiency plans.

4.6.2 Mitigation Measures

No mitigation is warranted.

4.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii. Strong seismic ground shaking?	☐	☐	■	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv. Landslides?	☐	☐	■	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	■
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

4.7.1 Impact Analysis

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact. The Project is not located within an Alquist-Priolo Earthquake Fault Zone. Alquist-Priolo Earthquake Fault Zoning Maps, which are issued for areas with active-faults (active during the Holocene)

that may cause surface rupture, have not been issued for Sacramento County (CDOC 2023a). There would be **no impact** related to Alquist-Priolo Earthquake Fault Zones.

ii. Strong seismic ground shaking?

Less Than Significant Impact. While active faults are not mapped in the City or Sacramento County, seismic ground shaking is possible from earthquakes centered in faults outside of the area. The nearest active fault (active within the Holocene), is Midland Fault approximately 20 miles to the southwest of the Project site. Based on review of the *Fault Activity Map of California*, a fault runs from Tehama County to Sacramento County (CDOC 2010), however, it is non-active (pre-Quaternary). Final design and construction of the Project would be required to be implemented in accordance with the City's design standards and recommendations in Project-specific geotechnical studies. As a result, the Project would have a **less than significant impact** related to seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. While active faults are not mapped in the City or Sacramento County, seismic ground shaking is possible from earthquakes centered in faults outside of the area. The nearest active fault (active within the Quaternary), is Midland Fault approximately 20 miles to the southwest of the Project site. Based on review of the *Fault Activity Map of California*, a non-active (pre-Quaternary) fault runs from Tehama County to Sacramento County (CDOC 2010). Final design and construction of the Project would be required to be implemented in accordance with the City's design standards and recommendations in Project-specific geotechnical studies. As a result, potential impacts related to seismic-related ground failure are considered **less than significant**.

iv. Landslides?

Less Than Significant Impact. The gross topography within the Project site consists of artificially leveled terraces bisected by a major drainageway (Laguna Creek). The general topography and grade of the Project site is flat; evidence of past grading, plowing, and/or mowing is present and is visible on aerial images. The microtopography within the Project site consists of concavities and convexities and is generally comprised of irregular, broken terrain. The elevation within the Project site varies from approximately 19.5 to 26 feet above mean sea level (MSL) (HELIX 2023).

The Project site is relatively level, with onsite grade ranging from 15 to 30 feet above MSL. The alignment for trail Segment 2 would be constructed south of Laguna Creek, adjacent and parallel to Big Horn Boulevard from Bruceville Road to the western edge of the City-approved Trojan Storage II Project (Project No. EG-20-018), and from Bruceville Road to the northwestern terminus of Segment 1 for an overall length of approximately 0.94 mile. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum depth of 2 feet for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.

Adverse effects, including the risk of loss, injury, or death involving landslides are not anticipated and impacts are, therefore, considered **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Soils mapped on the Project site include: Galt clay, 0 to 1 percent slopes, (Map Unit 152); San Joaquin silt loam, leveled, 0 to 1 percent slopes (Map Unit 213); San Joaquin silt

loam, 0 to 3 percent slopes (Map Unit 214); San Joaquin-Galt complex, leveled, 0 to 1 percent slopes (Map Unit 217); and San Joaquin-Galt complex, 0 to 3 percent slopes (Map Unit 218) (**Figure 4-5**, ***Soils***) (USDA, NRCS 2023).

Galt clay, 0 to 1 percent slopes (Map Unit 152) consists of alluvium derived from granite and is located on terraces from 10 to 150 feet above MSL. This soil unit is somewhat poorly drained with a high runoff class and is rated hydric (USDA, NRCS 2023). While the soil unit is technically rated as Farmland of Statewide Importance (USDA, NRCS 2023), based on the most recent *Farmland Mapping and Monitoring Program Map*, the Project site is now identified as Grazing Land or Farmland of Local Importance (**Figure 4-2**; CDOC 2023b). The parent material for this soil is clayey alluvium derived from igneous, metamorphic and sedimentary rock over cemented alluvium derived from igneous, metamorphic and sedimentary rock (USDA, NRCS 2023). This soil type occurs within the central portion of the Project site, within both trail segments.

San Joaquin silt loam, leveled, 0 to 1 percent slopes (Map Unit 213) is found on terraces and depressions from 20 to 500 feet above MSL. The soil unit is moderately well-drained with a high runoff class and low available water storage profile (USDA, NRCS 2021). Ponding or flooding is infrequent. The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 2023). This soil unit is absent within the central portion of the Project site, but occurs within both trail segments.

San Joaquin silt loam, 0 to 3 percent slopes (Map Unit 214) is found on terraces and depressions from 50 to 500 feet above MSL. The soil unit is moderately well drained with high runoff class (USDA, NRCS 2023) a low available water storage profile and low capacity to transmit water. Ponding or flooding is infrequent. The parent material for this soil until is alluvium derived from granite (USDA, NRCS 1993 and 2019). This soil unit occurs within the central portion of the Project site.

San Joaquin-Galt Complex, leveled, 0 to 1 percent slopes (Map Unit 217) is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45 percent), Galt soils (40 percent), and other minor soil components (15 percent). The San Joaquin soils component is moderately well-drained with very high runoff class and the Galt soils component is moderately well-drained with a high runoff class very low available water storage profile and very high runoff class and is hydric (USDA, NRCS 2023). The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 1993 and 2023). This soil type occurs within the disjunct element of the Project site approximately 0.3 mile south of Big Horn Boulevard along the western edge of Bruceville Road.

San Joaquin-Galt Complex, 0 to 3 Percent Slopes (Map Unit 218) is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45 percent), Galt soils (40 percent), and other minor soil components (15 percent). This soil unit is moderately well-drained with a high runoff class and is hydric and low available water storage profile. Ponding or flooding is infrequent. The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 1993 and 2023). This soil unit occurs within the central portion of the Project site.



Source: NRCS, 2021; Aerial (Nearmap, 3/5/2023)

HELIX Environmental Planning

Soils

Figure 4-5

Several Project components would minimize soil loss and erosion during and following Project construction. Caltrans' *Construction Site BMPs Manual* would be implemented during construction. BMPs will include the following measures or similar for minimizing erosion and sediment loss:

- Staging areas shall include reinforced temporary construction entrances and protected concrete washout and materials storage facilities as necessary;
- Following the tree and shrub removal all disturbed areas will be stabilized with temporary hydraulic mulch;
- During construction, temporary hydraulic mulch, check dams, and fiber rolls will be placed in advance of predicted rain events in areas currently under construction;
- As trail segments are completed, permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls shall be placed along the trail alignment, where necessary to prevent erosion;
- Following the completion of all grading and paving activities, all equipment and material storage will be removed and staging areas will be restored to resemble preconstruction conditions;
- Permanent erosion control comprised of hydroseed, hydromulch, and bio-degradable fiber rolls will be applied to the Project site in areas of ground disturbing activities. Native seed mix will be used for all revegetation; and
- Following final stabilization, temporary BMPs and temporary fence will be removed.

The trail alignment will consist of a paved 10-foot-wide path with 2-foot-wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes will be constructed at a gradient of 4:1. Based on the relatively level Project site, the location of the trail alignment on existing informal trails, and standard BMPs during construction, erosion and sediment loss would be **less than significant**.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. Lateral spreading, a phenomenon associated with liquefaction, subsidence, or other geologic or soils conditions that could create unstable subsurface conditions is not a substantial hazard for the Project site. Impacts related to unstable soils including lateral spreading or collapse resulting from seismic induced ground shaking are considered less than significant due to the distance from an active fault, the low potential for ground shaking hazards, and soil conditions in the area. Subsidence is generally characterized by the gradual settling of the earth's surface with little or no horizontal motion, and typically occurs in formations overlaying an aquifer subject to a gradual and consistently decreasing withdraw of groundwater. Subsidence is an issue in the delta regions of Sacramento County and not in the area of the Project site. Impacts related to unstable geologic units or soils are considered **less than significant impact**.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. The San Joaquin soil group, which makes up most of the soil units at the Project site, has potential for expansion (City of Elk Grove 2018). However, development of the Project would not create substantial direct or indirect risks to life or property related to expansive soils. In addition, final design of the Project would be in accordance with the City's design standards and recommendations in Project-specific geotechnical studies, including any related to expansive soils. Although Project development would occur on soils with expansive properties, Project development would not create substantial risks to life or property and Project design and construction would be required to conform to local and State building standards. Impacts are considered **less than significant**.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project does not include septic tanks or wastewater disposal systems. There would be **no impact** related to septic tanks or wastewater disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated. No paleontological resources are known to be present within the Project site. However, grading and excavation activities associated with construction of the Project would have the potential to unearth or otherwise expose previously unidentified paleontological resources, specifically in the Riverbank and Laguna Formations (CDOC 2009), which have yielded fossils in Sacramento County (City of Elk Grove 2018). Projects are required to implement Mitigation Measure 5.6.5 of the City of Elk Grove General Plan EIR for inadvertent discovery of paleontological resources (City of Elk Grove 2018). **Mitigation Measure GEO-1** would be required to be implemented consistent with Mitigation Measure 5.6.5 of the City of Elk Grove General Plan EIR which requires discovery procedures for paleontological resources during project construction and requires a qualified paleontologist to recommend measures specific to the discovered resource to mitigate adverse impacts discovered during construction activities. With implementation of **Mitigation Measure GEO-1**, potential impacts would be reduced to less than significant levels. As a result, impacts related to paleontological resources would be considered **less than significant with mitigation incorporated**.

4.7.2 Mitigation Measures

GEO-1 Before the start of any earthmoving activities, the City shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Rincon Consultants, Inc. (Rincon) prepared a *Construction Air Quality and Greenhouse Gas Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project* (Rincon 2023), which is attached to this Initial Study as **Attachment C** and summarized below.

4.8.1 Impact Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Impacts from operations and construction are detailed below.

Operations

The City adopted a Climate Action Plan (CAP) to identify how the City will achieve state recommended targets of reducing GHG emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030 pursuant to Assembly Bill (AB) 32 and Senate Bill (SB) 32. The CAP also demonstrates initial progress towards meeting the State's long-term 2050 goal of reducing emissions to 80 percent below 1990 levels as stated in Executive Order S-03-05 (City of Elk Grove 2019b). As outlined in the CAP, ~~for~~ future projects that the City determines are not exempt from CEQA, such as the Project, can achieve streamlining pursuant to the provisions of Section 15183.5 by including all applicable GHG reduction measures in the CAP in the project designs and/or as mitigation measures in the environmental document, thus demonstrating that the Project would have a cumulatively less than significant impact on the environment. Therefore, the Project would have a less than significant impact on GHG emissions if the Project complies with the applicable emission reduction measures included in the CAP.

Although the City's CAP contains a variety of measures, only five of the measures apply to projects seeking CEQA GHG streamlining, none of which are required of the Project because it would include construction of a new paved trail without any buildings or an increase in vehicle trips. However, the CAP includes Transportation Alternatives Congestion Management (TACM) measures that the Project would comply with and facilitate. Specifically, the Project would implement CAP Measures TACM-3: Intracity Transportation Demand Management and TACM-4: Pedestrian and Bicycle Travel, which intend to implement strategies and policies that reduce the demand for personal motor vehicle travel for intracity (local) trips and provide for safe and convenient pedestrian and bicycle travel through implementation of the BPTMP and increased bicycle parking standards, respectively. Development of the Project would

include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings, as detailed in the Project Description. Additional trail gap closures would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. The Project would also be consistent with Measure TACM-5: Limit Vehicle Miles Traveled. The goal of Measure TACM-5 is to limit new VMT in the City, while prioritizing low VMT projects which promote more sustainable transportation modes such as biking, walking, and public transportation. Therefore, the Project would be consistent with all applicable CAP measures and would have a **less than significant impact** on operational GHG emissions.

Construction

Construction-generated emissions are quantified and discussed below for informational purposes. Construction would generate emissions produced by on-site construction equipment and emissions from construction traffic. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

Potential GHG emissions from construction equipment were estimated using Roadway Construction Noise Model (RCEM). Total construction generated emissions and the emissions amortized over a 20-year period are shown in **Table 4-4**, ***Potential Construction GHG Emissions***. Typical Caltrans projects are constructed to last 20-plus years; therefore, the total construction-generated Project emissions were divided by 20 to provide a reasoned estimate of annual emissions.

Table 4-4
POTENTIAL CONSTRUCTION GHG EMISSIONS

	Estimated Total Annual Emissions (MT CO_2e)
Total Construction-Generated Emissions	255.9
Amortized over 20 years	12.8

Source: Rincon 2023

Note: RCEM version 9.0.0. Full emissions modeling results are included in the *Construction Air Quality and Greenhouse Gas Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project* (Rincon 2023).

MT = metric ton; CO_2e = carbon dioxide equivalent

With innovations such as longer pavement life cycle, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be minimized to some degree by longer intervals between maintenance and rehabilitation events. Caltrans' Standard Specifications provide requirements that construction contractor must comply with all local SMAQMD rules, ordinances, and regulations for air quality restrictions. Project construction would also be required to comply with California Air Resources Board's (CARB) anti-idling law, which states that vehicles not engaged in work activities may not idle for more than five minutes, and that vehicles may not idle auxiliary power systems for more than five minutes to power heaters, air conditioners or any other equipment if the vehicle has a sleeper berth and is within 100 feet of a restricted area (homes and schools). Compliance with SMAQMD rules and regulations, and CARB's anti-idling law would minimize GHG emissions generated by Project construction and would not result in significant effects in the areas of air quality nor greenhouse gas emissions. SMAQMD's Basic Construction Emission Control Practices and compliance with Caltrans' Standard Specifications Section 14 and 14-9.02 would be implemented as

described in the Project Description. The Project would have a **less than significant impact** on construction GHG emissions.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. As described in response to question a) above, the Project would be consistent with all applicable CAP measures. The CAP includes GHG reduction strategies to meet 2020 and 2030 emissions targets. The State recommended target per capita GHG reductions are 7.6 MT CO_2e by year 2020, 4.1 MT CO_2e by 2030, and 1.4 MT CO_2e by 2050. With legislative reductions and measures identified in the CAP, the per capita GHG emissions are estimated to be 5.4 MT CO_2e, 3.8 MT CO_2e, and 2.3 MT CO_2e for years 2020, 2030, and 2050, respectively.

The Project would help implement Measure TACM-4 of the CAP:

TACM-4. Pedestrian and Bicycle Travel

Provide for safe and convenient pedestrian and bicycle travel through implementation of the Bicycle, Pedestrian, and Trail Master Plan and increased bicycle parking standards.

It is anticipated that the availability of additional/expanded bicycle and pedestrian facilities would reduce vehicle trips. Implementation of TACM-4 is estimated, in total, to reduce emissions by 418 MT CO_2e in 2030 and 745 MT CO_2e in 2050. One of the performance measures is to construct 10 lane miles between 2020 and 2030 consistent with the BPTMP. The Project would construct 0.94 miles in 2024 and is a component BPTMP. The Project would have **less than significant impact** related to the CAP.

4.8.2 Mitigation Measures

No mitigation is warranted.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or school?	☐	☐	■	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	■

4.9.1 Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The Project would involve the construction of a multi-use Class I Bikeway with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings and, therefore, would not involve the routine transport, use, or disposal of hazardous materials.

There are no sites within the Project site that are listed in the *State of California Hazardous Waste and Substances Site List* (Cortese List) (California Department of Toxic Substances Control [CDTSC] 2023). The closest CDTSC EnviroStor Database Cleanup Sites or Hazardous Waste Sites are the Kalwani Property (34880001) at 8151 Sheldon Road approximately 0.4 mile from the Project site and the Laguna Creek

High School Addition (3820002), approximately 0.5 mile from the Project site. The Kalwani Property has a cleanup status of "No Further Action" as of December 31, 1997 (CDTSC 2023). The Laguna Creek High School Addition has a cleanup status of "No Action Required" as of March 16, 2001 (CDTSC 2023). Other nearby sites in the database are permitted underground storage tanks.

An aerially-deposited lead soil investigation was performed for the Project, which consisted of eighteen soil samples from nine boring locations along the west side of Bruceville Road (Parikh Consultants 2019). Total lead was reported above the laboratory test method reporting limit in each soil sample, at concentrations ranging from 4.3 milligrams per kilogram (mg/kg) to 17 mg/kg and are within the range of background concentrations. Based on the total lead concentrations reported for samples collected within the project area, the soil would be classified as non-hazardous because the maximum concentration of 17 mg/kg is less than the TTLC of 1,000 mg/kg and less than 50 mg/kg (i.e., less than ten times the STLC of 5 mg/l). Reuse or disposal of soil should not be restricted based on lead concentrations. No mitigation with regard to aerially-deposited lead is warranted.

Studies for the Sheldon Farms South Property, located south of Laguna Creek and along the east side of Bruceville Road, indicate a two-structure homestead ("homestead site") was previously removed at the west end of Segment 2 (Wallace-Kuhl & Associates 2017, 2019). The Phase I Environmental Site Assessment for Sheldon Farms South recommended soils testing for residues of lead from lead-containing paints and organochlorine pesticides within the 0.5-acre area formerly occupied by the homestead. The Phase I Environmental Site Assessment for Sheldon Farms South also identified a potential for residues of organochlorine pesticides and arsenic in surface soil within the 13-acre area that was used for raising irrigated crops. A Phase II Environmental Site Assessment for the Sheldon Farms South Property identified soils containing total lead concentration exceeding the Department of Toxic Substances Human and Ecological Risk Note 3 threshold for human exposure to lead under a residential exposure threshold (Wallace-Kuhl & Associates 2019). Following recommendations in the Phase II, on October 19, 2019, the soils were excavated and disposed at an appropriate off-site disposal facility. Based on the removal of these soils, the homestead site at the Sheldon Farms South Property is appropriate for unrestricted future uses and no further mitigation is warranted.

The Project would involve construction activities such as grading trails at or near aquatic features. Some of these activities would involve the use of heavy equipment, which would contain fuels, oils, solvents, and various other possible contaminants. The transport, storage, and disposal of any hazardous materials used would be subject to federal, State, and local regulations. The Sacramento County Environmental Management Division (SCEMD) is the Certified Unified Program Agency (CUPA) for the incorporated and unincorporated areas within Sacramento County. As the CUPA, the SCEMD regulates the use, storage, and disposal of hazardous materials and is available to respond to hazardous materials complaints or emergencies, if any, during construction.

The SCEMD administers the Hazardous Materials Business Plan (HMBP) Program to protect public health and the environment and groundwater from risks or adverse effects associated with the storage of hazardous materials. Businesses that handle/store 55 gallons of hazardous liquids, 500 pounds of hazardous solids, and 200 cubic feet (at standard temperature and pressure) of compressed gases must complete a HMBP for the safe storage and use of chemicals (City of Sacramento 2015c).

The handling, use, and storage of hazardous materials during construction would be required to be compliant with SCEMD standards. Therefore, impacts related to violation of hazards and hazardous material requirements are considered **less than significant** and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact with Mitigation Incorporated. The Project does not include hazardous materials storage or facilities. Release of hazardous materials during regular operation is not anticipated. However, during trail construction there is the possibility of upset or accident conditions involving the release of hazardous materials into the environment involving contaminants from machinery. However, if an accident should occur, Cosumnes Community Service District Fire Department (CCSDFD) is available to respond to an emergency relating to hazardous materials during construction. Fire Station 76, located at 8545 Sheldon Road, and Fire Station 74 located at 6501 Laguna Park Drive, are approximately one mile away. First responders would handle incidents consistent with the Area Plan for Emergency Response to Hazardous Materials Incidents in Sacramento County (Sacramento County, Environmental Management Department, Environmental Compliance Division 2016). If an incident is beyond the capabilities of the initial emergency response team, such as a Level II or Level III incident, the City of Elk Grove has an agreement with Sacramento County for the County to provide hazardous materials response teams which will aid in assessing, responding to, and resolving the incident.

The Project would involve yellow or white traffic markings (striping), as well as the removal of exiting striping. Striping would be done with a thermoplastic or paint applicator that is either powered or pushed to apply the thermoplastic stripe at the center of trail or at the trail's edge. Yellow traffic stripes/ thermoplastic typically contain heavy metals, including lead and chromium, at concentrations in excess of the hazardous waste thresholds established by the CCR (California Code of Regulations) and may produce toxic fumes when heated. Consequently, any yellow traffic striping within the Project area that would require modification and/or removal would require proper disposal, which may include disposal at a Class 1 disposal facility. **Mitigation Measure HAZ-1** would require a Hazardous Materials Compliance Plan be prepared in accordance with Caltrans Standard Specifications prior to commencement of construction to address metals content of any yellow and white roadway striping with the Project area. The plan would be prepared in accordance with Caltrans Standard Specifications 14-11.12C for removal of yellow traffic stripe and pavement markings that produce hazardous waste residue. Implementation of **Mitigation Measure HAZ-1** would reduce impacts to **less than significant with mitigation incorporated**.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or school?

Less Than Significant Impact. Harriet Eddy Middle School at 9329 Soaring Oaks Drive is located approximately 0.25 mile southeast of the sidewalk segment on Bruceville Road between Di Lusso Drive and Laguna Boulevard. No hazardous emissions or hazardous materials, substances, or waste would be handled during regular operation of the sidewalks and trails. However, Project construction would involve the use of heavy equipment, which would contain fuels, oils, solvents, and various other possible contaminants. The transport, storage, and disposal of any hazardous materials used for the Project would be subject to federal, State, and local regulations, thereby reducing the probability of exposing hazardous materials to the school area. Construction would also be short-term in duration. Based on these factors, impacts related to hazardous emissions, materials, substances or waste within 0.25 mile of an existing or school are considered **less than significant**.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. There are no hazardous waste and substance sites listed on the Cortese list within the City limits (list compiled pursuant to Government Code §65962.5). Cortese list sites within Sacramento County are documented within the cities of Sacramento and Rancho Cordova (CDTSC 2023). There would be **no impact**.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest public airport is Sacramento Executive Airport, which is located approximately six miles to the northeast. Based on review of the comprehensive land use plan (Airport Land Use Compatibility Plan 2023), the Project is outside of the land use plan area for Sacramento Executive Airport. Therefore, **no impact** would result from development of the Project.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Project includes two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings. sidewalk improvements would also be constructed on the west side of Bruceville Road at an existing gap between Di Lusso Drive and Laguna Boulevard. Construction would be short-term and temporary in nature and would, therefore, not conflict with any applicable congestion management plans. During the construction of the sidewalk improvements, the City of Elk Grove Public Works Department would allow lane closures using standard Traffic control systems implemented consistent with City standards to ensure that there would be no interference with emergency response plans or evacuation plans. Impacts would be **less than significant** related to potential impairment of emergency responses or emergency evacuations.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The trails would be served by the CCSDFD. Fire Station 76, located at 8545 Sheldon Road, and Fire Station 74 located at 6501 Laguna Park Drive, are approximately one mile from the Project site. It is, therefore, anticipated that existing fire protection facilities in the City would be able to provide fire protection services for the trail. There would be **no impact** regarding risk of loss, injury or death involving wildland fires.

4.9.2 Mitigation Measures

HAZ-1 Prior to the commencement of construction, a hazardous materials compliance plan shall be prepared by a Certified Industrial Hygienist to address the metal content of any yellow and white roadway striping with the Project area. This plan shall be prepared in accordance with Caltrans Standard Specifications Section 14-11.12C for removal of yellow traffic stripe and pavement markings that produce hazardous waste residue.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	■	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site?	☐	☐	■	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	☐	☐	■	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?	☐	☐	■	☐
iv. Impede or redirect flood flows?	☐	☐	■	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

4.10.1 Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Water quality impacts from construction and operations are described below.

Construction Impacts

Any discharge of pollutants to waters of the U.S. is unlawful unless the discharge complies with the National Pollutant Discharge Elimination System (NPDES) permit. The Statewide General Construction Permit and the NDPES General Construction Activity Stormwater Permit (General Permit) are applicable

to requiring the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that specifies erosion and sediment control construction and post-construction BMPs to reduce or eliminate construction-related and operational impacts on receiving water quality. The SWPPP identifies structural and non-structural BMPs to uphold water quality and waste discharge requirements.

Chapter 16.44 of the City Code establishes the Land Grading and Erosion Control Ordinance to minimize water quality degradation. A Grading and Erosion Control Permit is required to grade, fill, excavate, store, or dispose of 350 cubic yards or more of soil or earthen material, or to clear and grub one acre or greater of land within the City. A project is required to develop and implement plans prior to grading activities that include measures to minimize erosion, sediment, and dust created by construction and maintenance activities.

Implementation, monitoring, and maintenance of BMPs required to comply with existing enforceable City Ordinances, combined with compliance with current State and federal regulations relevant to maintaining water quality objectives, would ensure that Project development would not result in substantial erosion or siltation violating water quality standards and discharge requirements. In addition, Project design features would establish a minimum three-foot buffer maintained around all avoided aquatic features in the vicinity of the trail improvements during construction. Temporary construction exclusion fencing and a silt fence would be installed to further define these limits and exclude construction equipment and activities near the avoided aquatic features, which would help maintain water quality standards. construction protocols, combined with existing enforceable provisions addressing erosion applicable to the Project would ensure that current water quality standards are maintained. Construction-related impacts related to Project development are, therefore, considered **less than significant**.

Operational Impacts

Ongoing use by trail users would have the potential to result in areas off of the trail alignment, that may be subject to erosion. Compliance with the City Municipal Separate Storm Sewer Systems (MS4) Permit (NPDES No. CAS082597 issued jointly to Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, and Sacramento) would ensure that the areas surrounding the Project site would be managed such that any erosion or soil loss resulting from long-term trail use and potential unauthorized use in surrounding lands adjacent to the designated trail alignment would be identified and remediated. Therefore, potential impacts associated with trail operation are considered **less than significant**.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Development of the Project would not result in an increased demand for or use of groundwater because the trail does not require regular water supply, other than irrigation for limited landscape improvements. The gravel trail shoulders would allow for some groundwater recharge from sheet flows off the paved trail. New impervious area would total approximately one acre; and would not be considered large enough to substantially interfere with groundwater recharge. As described in detail within **Section 3.8**, **Project Components**, Project amenities may include landscaping improvements, including landscape planters. However, substantial demand for water supply is generally associated with residential development. The Project would introduce limited landscaping requiring watering and would not be anticipated to result in a substantial decrease in groundwater supply. The Project would not substantially deplete groundwater supplies or interfere substantially with

groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and impacts are considered **less than significant**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. While there would be an increase in approximately one acre of impervious surface area, it is anticipated that this addition of impervious area would not appreciably alter the existing drainage pattern, as trail design would maintain existing grades and drainage patterns to the greatest extent feasible. Side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be sized based on existing topographic information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures. Additionally, the trail alignment would include gravel shoulders along the edge of pavement. The shoulders would aid in reducing the velocity of stormwater flowing off the paved trail minimizing the potential for erosion and siltation, as well as accommodating storm water infiltration via a permeable surface. Therefore, impacts related to erosion and siltation are considered **less than significant**.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

Less Than Significant Impact. A hydraulic analysis for the Project was documented in the *City of Elk Grove Laguna Creek Trails Project – Floodplain Evaluation* (West Yost Associates, Inc. 2019) attached to this Initial Study as **Attachment G**. The analysis predicted the Project would result in a maximum increase in water surface elevation of 0.02 feet for the 10-year storm and a maximum increase in water surface elevation of 0.01 feet for the 100-year storm. These predicted increases in water surface elevation are minor and are considered a **less than significant impact** on floodplain limits and flooding on- or off-site. The Project would not result in flooding of surrounding developed areas.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

Less Than Significant Impact. Although an increase in stormwater runoff is anticipated from the approximately three-acre increase in impervious surfaces, the runoff is not anticipated to exceed the capacity of existing or planned stormwater drainage systems or provide a substantial additional source of polluted runoff. The trail is not for motorized use, therefore, pollution from oils, grease, or fuel are not anticipated. drainage plans during final design would be reviewed by the City's Public Works Department to ensure compliance with the NPDES MS4 Permit (NPDES No. CAS082597). The Project would be required to follow the City's General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and meet the performance standards set forth in the City's NPDES MS4 permit (City of Elk Grove 2021). The policies are as follows:

Policy NR-3-2: ***Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion.***

Standard NR-3-2.a: Where feasible, employ on-site natural systems such as vegetated bioswales, living roofs, and rain gardens in the treatment of stormwater to encourage infiltration, detention, retention, groundwater recharge, and/or on-site water reuse.

Standard NR-3-2.b: Roads and structures shall be designed, built and landscaped so as to minimize erosion during and after construction.

Standard NR-3-2.c: Post-development peak storm water run-off discharge rates and velocities shall be designed to prevent or reduce downstream erosion, and to protect stream habitat.

Policy NR-3-3: ***Implement the City's National Pollutant Discharge Elimination System Permit through the review and approval of development projects and other activities regulated by the permit.***

Policy LU-5-12: ***Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion, during and after construction.***

Standard LU-5-13.a: Where feasible, require on-site natural systems such as vegetated bioswales, green roofs, and rain gardens in the treatment of stormwater to encourage infiltration, detention, retention, groundwater recharge, and/or water reuse on-site.

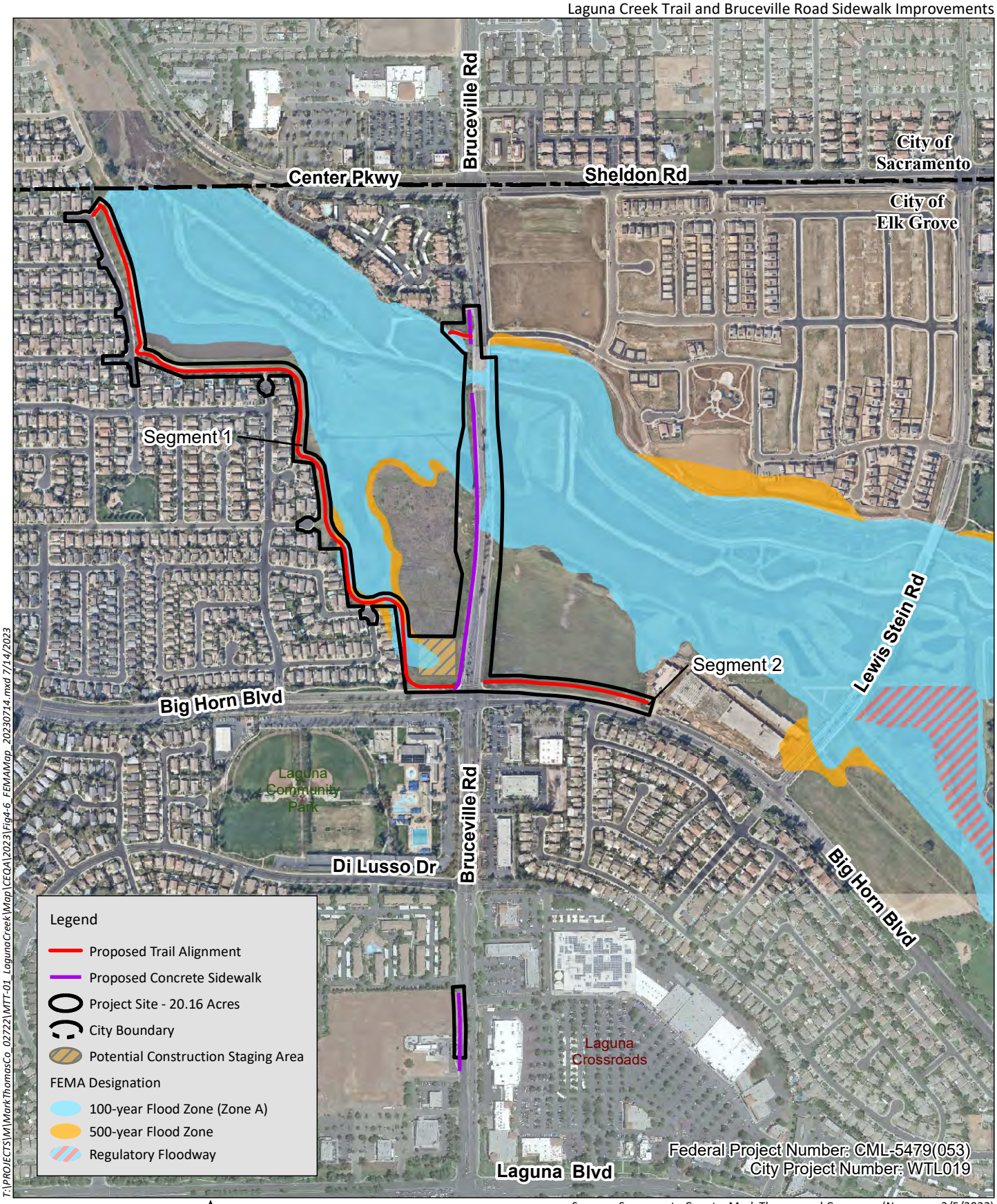
Correspondingly, the Project would have a **less than significant impact** on stormwater drainage systems or polluted runoff.

iv. Impede or redirect flood flows?

Less Than Significant Impact. The *Floodplain Evaluation* (West Yost Associates, Inc. 2019) determined that the maximum increase in surface water elevation would be minor, as discussed in the response to question c.ii), above. The trail alignment is located outside of the Laguna Creek channel and sidewalks would be along Bruceville Road. The Project would have a **less than significant impact** on impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. trail Segment 1, west of Bruceville Road, would be located in the 100-year flood zone (**Figure 4-6**, ***Floodplain Map***). Segment 1 would not include any buildings or regularly stored products that could become pollutants if flooded, nor would Segment 2. The Project site is not located near a coastal area or enclosed body of water that could produce a seiche or tsunami, nor is the site located near areas having steep slopes that would create mudflows. There would be a **less than significant impact** related to the risk of releasing pollutants due to inundation.



Sources: Sacramento County; Mark Thomas and Company; (Nearmap, 3/5/2023)

HELIX Environmental Planning

FEMA 100-Year Floodplain Map

Figure 4-6

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The Project site is in Hydrologic Unit Code 180201630403 (U.S. Environmental Protection Agency [USEPA] 2023) within the Sacramento Hydrologic Basin Planning Area of the Central Valley Region. The applicable water quality control plan is the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition* (California Regional Water Quality Control Board, Central Valley Region 2018). As described in the response to question c.iii), the Project's stormwater drainage would be in compliance with requirements of the area's NPDES MS4 Permit, including post-construction storm water runoff requirements. The Project would also obtain coverage under the NPDES General Permit and implement water quality BMPs to discharge of pollutants to surface water during construction. These BMPs will include standard measures for sediment-tracking reduction, such as vehicle washing and street sweeping, and revegetation of all areas disturbed by construction with native species. Correspondingly, the Project is not anticipated to conflict with the water quality control plan or groundwater management plan and impacts associated with development of the Project would be considered **less than significant**.

4.10.2 Mitigation Measures

No mitigation is warranted.

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	■
b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	■	☐	☐

4.11.1 Impact Analysis

a) Physically divide an established community?

No Impact. trail and sidewalk improvements would be accessible to pedestrians and bicyclists from the existing Elk Grove and Laguna Creek trails and adjacent sidewalks. The trails and sidewalks would not include barriers or other features that would divide an established community. The Project would have **no impact** on dividing an established community.

b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact with Mitigation Incorporated. Project improvements are within multiple parcels constituting a giant garter snake conservation area by the USFWS, as well as within areas of constructed aquatic resources established as mitigation for impacts to waters of the U.S. These areas were established for purposes of mitigating adverse effects to habitat for listed species, as well as impacts to waters of the U.S. resulting from Sacramento County's Lower Laguna Flood Control Project implemented in the late-1990s. A Project-specific Biological Assessment will be reviewed by USFWS during Caltrans' (NEPA lead agency) consultation with the USFWS under Section 7 of the federal Endangered Species Act. The USACE will review improvements through preparation and submittal of the Pre-Construction Notification submitted requesting authorization for the placement of fill within waters of the U.S. to accommodate development of improvements. Any activities within USFWS-designated giant garter snake conservation areas or within areas of aquatic resource establishment would conflict with the Section 404 Permit and Biological Opinion issued for the Lower Laguna Flood Control Project and would, therefore, be considered potentially significant impacts, unless reviewed and authorized by the USACE and the USFWS. **Mitigation Measure LU-1** requires the City to obtain written authorization from the USACE and the USFWS prior to implementing any Project-related improvements. Therefore, impacts are considered **less than significant with mitigation incorporated**.

4.11.2 Mitigation Measures

LU-1 Prior to implementing construction of improvements, the City shall consult with the USACE and USFWS to obtain the applicable regulatory authorizations for project development.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

4.12.1 Impact Analysis

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The City is mapped entirely in Mineral Resource Zone 3 (MRZ-3), which are defined as "*Areas containing mineral deposits, the significance of which cannot be evaluated from available data*." (CDOC, Division of Mines and Geology 1999). No active mining operations are present on or near the site, and implementation of the Project would not interfere with the extraction of any known mineral resources. The Project would have **no impact** on known mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The City's General Plan Update states that there are "*no mineral deposits or mineral extraction activities within the Planning Area*" including the location of the Project (City of Elk Grove 2021). **No impact** related to the loss of availability of a known mineral resource of value to the region or residents of the State would result from development of the Project.

4.12.2 Mitigation Measures

No mitigation is warranted.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Rincon Consultants, Inc. prepared a *Construction Noise Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project* (Construction Noise Review) (Rincon 2023), which is attached to this Initial Study as **Attachment H** and summarized below.

4.13.1 Impact Analysis

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant with Mitigation Incorporated. The Project would comply with the City's noise standards and Caltrans' Standard Specifications Section 14-8. As described in **Section 3.8.6.2**, **Construction Protocols**, per Section 6.32.080 of the City's Municipal Code, noise sources associated with construction are exempt from the City's noise standards, provided such activities only occur between the hours of 7:00 A.M. and 7:00 P.M. when located adjacent to residential uses and 6:00 A.M. and 8:00 P.M. when not adjacent to residential uses. With the implementation of temporary construction noise avoidance and minimization measures no substantial adverse noise impacts from construction activity are anticipated; additional short-term construction noise investigation is not required.

Construction activities would be temporary in nature. Sensitive receptors in closest proximity to the Project site consist of single-family residences west of the alignment, approximately 15 feet from the Project site.

Receptors within 15 feet of construction activity would experience exterior construction noise up to approximately 98 decibels, A-weighted (dBA) equivalent continuous sound level (L_{EQ}) at their property lines during the site preparation phase and from approximately 84 to 95 dBA L_{EQ} at their property lines during the grading, paving, and architectural coating phases. Receptors within 80 feet of construction

activity would experience exterior construction noise up to approximately 84 dBA L_{EQ} at their property lines during the site preparation phase and from approximately 70 dBA L_{EQ} to 80 dBA L_{EQ} at their property lines during the grading, paving, and architectural coasting phases. The manner in which buildings in California are constructed generally provides for an exterior-to-interior transmission loss of about 25 dBA with closed windows and doors (Federal Transit Administration 2006). Therefore, interior noise levels would not be expected to exceed approximately 73 dBA L_{EQ} during construction activity. Construction activity would be temporary, occurring over approximately a seven-month period, and avoidance and minimization measures for construction noise are recommended below.

Caltrans Standard Specifications Section 14-8.02, "Noise Control," states noise levels generated during construction shall not exceed 86 L_{MAX} 50 feet from the Project site from 9:00 p.m. to 6:00 a.m. During the loudest phases of construction, based on the results of the construction noise estimates shown in **Table 4-5**, ***POTENTIAL CONSTRUCTION NOISE LEVELS*** ~~***Potential Construction Noise Levels***~~, the maximum noise level at 50 feet would exceed 86 dBA L_{MAX}. Because construction activity would not occur outside of daytime hours, construction noise would not exceed the 86 dBA L_{MAX} Caltrans' Standard Specification for nighttime construction operations 50 feet from the Project site.

Table 4-5
POTENTIAL CONSTRUCTION NOISE LEVELS

Construction Phase	Equipment	Estimated Construction Noise Levels (dBA L_{EQ})[1]/(dBA L_{MAX})[2]					
		15-foot distance		50-foot distance		80-foot distance	
		L_{EQ}	L_{MAX}	L_{EQ}	L_{MAX}	L_{EQ}	L_{MAX}
Site Preparation	Daily Scraper, Dump Truck, Saw Cutter, Small Hand Tools (<5 horsepower), Grader Scraper, Dump Truck, Saw Cutter, Small Hand Tools (<5 horsepower), Grader Emissions	98.1	100.0	87.6	89.6	83.5	85.5
Grading	Excavator, Compactor, Grader, Dump Trucks (2), Small Hand Tools (<5 horsepower)	95.0	95.5	84.5	85.0	80.4	80.9
Paving	Paver	84.7	87.7	74.2	77.2	70.1	73.1
Architectural Coating	Air Compressor	90.1	94.1	79.6	83.6	75.5	79.5

Source: Construction Noise Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (Rincon 2023); See Attachment H for RCNM equipment and noise data sheets

[1] L_{EQ} represents the combined average noise level of all equipment over a one-hour period. Because L_{EQ} combines noise from multiple pieces of equipment operating simultaneously, calculated L_{EQ} may be higher than L_{MAX}.

[2] L_{MAX} represents the instantaneous peak noise level of the single loudest piece of equipment. Because L_{MAX} is limited to single pieces of equipment, L_{MAX} may be lower than calculated L_{EQ}.

Rerouting Segment 2 along Big Horn Boulevard would align the trail alignment closer to residences, which are considered sensitive receptors. Construction noise would be louder at these receptors. However, the revised alignment would be at least 15 feet from the sensitive receptors along Big Horn Boulevard. The 2023 Technical Noise Memorandum analyzed construction noise and vibration impacts to sensitive receptors as close as 15 feet. Therefore, construction noise is not anticipated to exceed 98

dBA L_{eq} at 15 feet and vibration is not anticipated to exceed 0.133 in/sec PPV at 15 at receptors along Big Horn Boulevard, as was analyzed in the 2023 Technical Noise Memorandum.

Construction noise would be minimized by implementing Section 6.32.080 of the City's Municipal Code and Caltrans' Standard Specification Section 14-8.02 as described in the Project Description. **Mitigation Measures NOI-1 and NOI-2** are recommended to reduce temporary construction noise levels at nearby sensitive receptors. With implementation of **Mitigation Measure NOI-1 and NOI-2**, impacts on ambient noise levels would be **less than significant with mitigation incorporated**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. During Project construction, the closest sensitive receptors would be located approximately 25 feet from the potential active construction areas. At this distance, as summarized in **Table 4-6**, ***Vibration Levels of Common Types of Construction Equipment***, when the heaviest construction equipment operates at the edge of the Project construction limits, residents in their backyards may be exposed to groundborne vibration levels up to 0.076 in/sec peak particle velocity (PPV). However, this groundborne vibration level is below the Caltrans limit of perception for transient vibration sources.

Table 4-6
VIBRATION LEVELS OF COMMON TYPES OF CONSTRUCTION EQUIPMENT

Construction Equipment	Reference Vibration Levels PPV at 25 Feet (inches/second)	Closest Residential Properties PPV at 15 Feet (inches/second)
Compactor	0.050	0.088
Excavator	0.040	0.070
Loaded Trucks	0.076	0.133
Paver	0.063	0.111
Pneumatic Tool	0.040	0.070
Scraper/Grader	0.057	0.100

Source: Construction Noise Review for the Revised Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (Rincon 2023); See Attachment H for RCNM equipment and noise data sheets
PPV = peak particle velocity.

Substantially adverse noise and vibration impacts are not anticipated from construction of the revised alignment for the Project because construction would be short-term and would be conducted in accordance with Caltrans' Standard Specifications. Therefore, construction-related ground-borne vibration impacts resulting from construction of the Project would not exceed applicable standards. Impacts would be **less than significant** related to groundborne vibration or groundborne noise levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest public airport is the Sacramento Executive Airport, which is located approximately six miles to the northeast. Based on review of the comprehensive land use plan (Airport Land Use Compatibility Plan 2023), the Project is outside of the land use plan area for Sacramento Executive Airport Land Use Commission for Sacramento, Sutter, Yolo, and Yuba Counties Airport. The Project would have **no impact** regarding excessive noise related to airports.

4.13.2 Mitigation Measures

NOI-1 *Construction Equipment Sound Control*. All internal combustion engines, including trucks, shall be equipped with the manufacturer-recommended mufflers and silencing devices. Operation of an internal combustion engine shall not occur on the job site without the appropriate muffler.

NOI-2 *Neighborhood Notification Prior to Construction.* At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice to all property owners, businesses, and residents within 300 feet of the Project area. The notice shall contain a description of the Project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s).

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

4.14.1 Impact Analysis

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The Project would not involve any residential development or employment-generating land uses. Development of the Project would not indirectly induce population growth because improvements would not extend roads or infrastructure into previously undeveloped areas. trails would connect the existing Elk Grove Trail and Laguna Creek Trail to the north and south, and sidewalks would close existing gaps in the system. Development of the Project would have **no impact** on substantial unplanned population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project is located within existing un-developed areas, largely on existing informal paths. No acquisitions of residential buildings or housing is required. The Project would have **no impact** on displacing existing people or housing in the area.

4.14.2 Mitigation Measures

No mitigation is warranted.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	■	☐
b) Police protection?	☐	☐	■	☐
c) Schools?	☐	☐	☐	■
d) Parks?	☐	☐	■	☐
e) Other public facilities?	☐	☐	■	☐

4.15.1 Impact Analysis

a) Fire protection?

Less than Significant Impact. The Project is served by the CCSDFD. There are currently eight stations operated by CCSDFD and two CCSDFD fire stations are close to the Project site, including Station 76, located at 8545 Sheldon Road, and Fire Station 74 located at 6501 Laguna Park Drive.

The General Plan also has safety policies to ensure efficient movement of police and firefighting equipment and safe evacuation of residents, and the City cooperates with the CCSDFD to reduce fire hazards, assist in fire suppression, and promote fire safety. The BPTMP requires that all bicycle and pedestrian trails be at minimum 10 feet of paved trail, which is consistent with Cosumnes Community Service District fire standards, so that the trails can double as an emergency vehicle access (GHD, Inc. 2021).

Development of the Project would not result in increased population and residential structures, and a subsequent need for additional fire protection facilities. While there is a possibility someone could get injured on the trail requiring dispatch of an ambulance, it is anticipated that existing fire protection facilities and emergency response vehicles in the City would be able to provide fire protection services for the trail, while continuing to maintain acceptable service ratios, response times, and performance objectives. Impacts related to fire protection services resulting from development of the Project would be **less than significant**.

b) Police protection?

Less than Significant Impact. Police protection services within the vicinity of the Project are provided by the Elk Grove Police Department. The Elk Grove Police Department has 146 sworn officers and 108 civilian employees who provide law enforcement and policing services to the City (Elk Grove Police

Department 2023). In addition, the City's General Plan, *Safety Element* (City of Elk Grove 2021) contains policies relating to police protection. Under Policy SAF-1-1 the City shall "*regularly monitor and review the level of police staffing provided in Elk Grove, and ensure that sufficient staffing and resources are available to serve local needs*" (City of Elk Grove 2021). This policy ensures adequate police protection in the City as it expands. The BPTMP also identifies thoughtful design where "*[t]he design of trails shall provide a degree of privacy to surrounding residences, but still allow for informal monitoring of the trail*" (GHD, Inc. 2021).

The Project would not involve residential development and would not result in increased population. The City of Elk Grove Police Department would continue to provide police protection services within the Project area. While informal monitoring of the trail may occur, Project development is not anticipated to result in the need for expanded police protection services. Impacts related to the provision of police protection services resulting from the Project would be **less than significant**.

c) Schools?

No Impact. improvements would not interfere with schools or require new school facilities. Schools within 0.5 mile of the Project include Irene B. West Elementary School at 8625 Serio Way, Laguna Creek High School at 9050 Vicino Drive, and Harriet Eddy Middle School at 9329 Soaring Oaks Drive. Since the Project would not involve residential development and would not result in increased population, no new school facilities or additions to existing school facilities are needed. **No impact** would result on schools.

d) Parks?

Less Than Significant Impact. Within the City, parks within 0.5 mile of the Project site include Pinkerton Park at 8906 West Stockton Boulevard, Guttridge Park at 8100 Laguna Brook Way, Zimbelman Park at 9191 Big Horn Boulevard, Laguna Community Park at 9014 Bruceville Road, and Herburger Park at 6811 Peninsula Way. Within Sacramento, the North Laguna Creek Park at 6400 Jacinto Avenue is within 0.5 mile of the Project site. Development of the Project would provide increased recreational use and transportation opportunities for local pedestrians and bicyclists, consistent with the City's BPTMP and SACOG Master Plan goals. The Project would facilitate local and regional trail use and would not involve residential development or employment-generating land uses and, therefore, would not result in increased population that would require additional or expanded park facilities. Potential impacts to parks are therefore considered **less than significant**.

e) Other public facilities?

Less Than Significant Impact. The Project would not involve residential development or employment-generating land uses and, therefore, would not result in increased population that would require additional public facilities.

The City's Department of Public Works, Operation and Maintenance Division is responsible for maintaining streets, bike lanes, multi-use trails, traffic signs and pavement markings, sidewalk, curb and gutter, traffic signals, street lights, storm drain system, creeks and channels, roadside ditches, median and frontage landscaping, and graffiti on public property (City of Elk Grove 2023c). The BPTMP identifies long-term trail maintenance responsibilities. All of the trails within the City of Elk Grove are maintained in partnership by the Cosumnes Community Services District (CCSD) and the City of Elk Grove. The City of Elk Grove maintains trail pavement while the CCSD is responsible for all other trail features through a Master Agreement. Maintenance includes weed abatement, pruning vegetation for sight distance, sign

installation and removal, damage from weather conditions, and general trail clean up (GHD, Inc. 2021). While development of the Project would introduce new responsibilities for the City and CCSD, the BPTMP identifies planned Class I multi-use trails along Laguna Creek and adjacent to residential areas with connections to existing Class I multi-use trails as . Pedestrian improvements are also identified along Bruceville Road at the Project location (GHD, Inc. 2021). Impacts on other public facilities are therefore considered **less than significant**.

4.15.2 Mitigation Measures

No mitigation is warranted.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	■	☐	☐

4.16.1 Impact Analysis

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Within the City, parks within 0.5 mile of the Project site are Pinkerton Park at 8906 West Stockton Boulevard, Guttridge Park at 8100 Laguna Brook Way, Zimbelman Park at 9191 Big Horn Boulevard, Laguna Community Park at 9014 Bruceville Road, and Herburger Park at 6811 Peninsula Way. Within Sacramento, the North Laguna Creek Park at 6400 Jacinto Avenue is within 0.5 mile of the Project site. improvements have been designed to formalize trail alignments in areas where existing informal use already occurs connecting multiple existing established neighborhoods, providing improved, formalized connections to these parks, consistent with the City's goals. While some increased use of parks may be reasonably anticipated, increased use would not be anticipated to rise to a level that would induce the need for new or physically altered park facilities given that existing park facilities are currently accessed via the existing informal trails. Development of the Project would result in the construction of official trail connections for public access/use and would not increase the use of other recreational facilities or parks such that substantial physical deterioration would occur or be accelerated. Therefore, impacts are considered **less than significant**.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant with Mitigation Incorporated. As discussed throughout this document, construction of the Project would have the potential to result in adverse physical effects on the environment related to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use, Noise, and Tribal Cultural Resources. However, mitigation measures are which would reduce all potentially significant effects resulting from implementation of the Project to less than significant levels; therefore, impacts are considered **less than significant with mitigation incorporated**.

4.16.2 Mitigation Measures

Implementation of mitigation measures for **Air Quality**, **Biological Resources**, **Cultural Resources**, **Geology and Soils**, **Hazards and Hazardous Materials**, **Land Use**, **Noise**, and **Tribal Cultural Resources** would reduce potentially significant impacts related to recreation to less than significant levels.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	■
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	■	☐
d) Result in inadequate emergency access?	☐	☐	☐	■

4.17.1 Impact Analysis

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The Project would not conflict with the City's General Plan (City of Elk Grove 2021) or the BPTMP (GHD, Inc. 2021), which both show Class I multi-use trails in the Project location.

The Project would cross Bruceville Road. Bruceville Road is a north-south 6 Lane arterial that extends from Valley Hi Drive in Sacramento to Lambert Road in unincorporated Sacramento County. Bruceville Road south of Big Horn Boulevard has sidewalks on both sides and a Class II bike lane. Bruceville Road north of Big Horn Boulevard does not have sidewalks on either side. Due to high vehicular right-turn volumes, the Project would also include a designated bike lane and a 300-foot-long vehicular right-turn lane from southbound Bruceville Road to westbound Big Horn Boulevard for added bicycle safety and a new sidewalk from Bruceville Road northward approximately 0.4 mile. Trail users would be able to cross at-grade with Bruceville Road at an existing signal-controlled crosswalk.

Traffic control (such as signage, orange cones, flaggers) would be implemented during construction, facilitating movement on the roadway in accordance with City Public Works standards. Construction would be short-term and limited to the number of days required to construct improvements and would, therefore, not conflict with any applicable congestion management plans. Therefore, impacts associated with development of the Project are considered **less than significant**.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact. CEQA Guidelines Section 15064.3, subdivision (b) states that agencies "*have the discretion to determine the appropriate measure of transportation impact consistent with CEQA.*" The City identified a list of Project types "*that are not likely to lead to a substantial or measurable increase in VMT.*" The list included active transportation improvements (such as new trail segments), installation of turn lanes, and

installation of traffic control devices (including traffic signals) Transportation Analysis Guidelines (City of Elk Grove 2019b). Accordingly, the Project is not anticipated to increase VMT and would not, therefore, conflict or be considered inconsistent with CEQA Guidelines Section 15064.3 (b). **No impact** would result from development of the Project.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The Project includes two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings as well as sidewalks improvements along the west side of Bruceville Road. Trail pavement would be delineated by distinct paint, markings, and signs consistent with City standards as well as the MUTCD standards. The City may also elect to provide wayfinding signs. According to the BPTMP, all bicycle striping and wayfinding signs would also conform to the Caltrans Highway Design Manual, Chapter 1000 (GHD, Inc. 2021).

Additionally, the trail design would consist of a 10-foot trail paved with standard two-foot shoulders, allowing for compatible trail use by bicyclists and pedestrians. The sidewalks on Bruceville Road would be designed and constructed consistent with the City's design standards. Impacts related to design-related hazards due to geometric design features and/or incompatible uses are, therefore, considered **less than significant**.

d) Result in inadequate emergency access?

No Impact. The City BPTMP requires that all bicycle and pedestrian trails be at minimum 10-feet of paved trail, which is consistent with CCSDFD fire standards, so that the trails can double as emergency vehicle access (GHD, Inc. 2021). Emergency access would also be available along multiple points of the trail alignment. Emergency access to the Project exists at Lewis Stein Road, Bruceville Road, Mannington Street, Monterey Oaks Drive/Jessup Court, McGill Court, and Lyndale Circle. Therefore, **no impacts** related to emergency access would result from development of the Project.

4.17.2 Mitigation Measures

No mitigation is warranted.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	■	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

4.18.1 Impact Analysis

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Less Than Significant Impact with Mitigation Incorporated. Pursuant to Assembly Bill 52 (AB-52) and Public Resources Code Section 5020.1(k), the City sent formal notification letters to the Ione Band of Miwok Indians, UAIC, and Wilton Rancheria on March 8, 2019. The 30-day response period closed on April 15, 2019. A response from UAIC was received on April 26, 2019 and a response from Wilton Rancheria was received on May 8, 2019. While the official 30-day comment period to consult had concluded, the City coordinated with UAIC and Wilton Rancheria outside of AB-52 for the Project.

During coordination, UAIC recommended measures for inadvertent discoveries and inclusion of a tribal cultural resources topic during Worker Environmental Awareness and Protection training. UAIC also requested copies of the environmental document. The City's **Mitigation Measures CUL-5 and CUL-6**

identified in **Section 4.5**, **Cultural Resources,** of this IS reflect the recommendations made by UAIC. A copy of the Initial Study and Draft MND will be sent to UAIC upon release of the documents by the City for public review and comment.

During coordination, Wilton Rancheria requested participation in cultural resources studies and recommended mitigation measures, which are incorporated as **Mitigation Measures CUL-5 and CUL-6** in Section 4.5, Cultural Resources. The City provided the cultural information available on May 29, 2019 and notified Wilton Rancheria of the pedestrian survey conducted on June 12, 2019. A copy of the IS and Draft MND will be sent to Wilton Rancheria upon release of the documents by the City for public review and comment.

While no locations of known tribal cultural resources have been identified, recommended mitigation measures were identified by UAIC and Wilton Rancheria in the event of inadvertent discovery. Construction of the Project could potentially result in inadvertent discovery of an archaeological resource or unknown tribal cultural resource. Without mitigation, the Project could have a potentially significant impact. **Mitigation Measure CUL-5** outlines the steps that would be taken to halt work and coordinate with UAIC and Wilton Rancheria if an inadvertent discovery is made. **Mitigation Measure CUL-6** discusses the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training. Implementation of **Mitigation Measures CUL-5 and CUL-6** would reduce the potential impact to **less than significant with mitigation incorporated**.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant with Mitigation Incorporated. No resources set forth in subdivision (c) of Public Resources Code Section 5024.1 were identified by the City during AB-52 consultation or preparation of the ASR/HPSR. However, as discussed above, construction of the Project could potentially result in inadvertent discovery of a significant tribal cultural resource, resulting in potentially significant impacts. **Mitigation Measure CUL-5** outlines the steps that would be taken to halt work and coordinate with UAIC and Wilton Rancheria if an inadvertent discovery is made. **Mitigation Measure CUL-6** discusses the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training. Implementation of **Mitigation Measures CUL-5 and CUL-6** would reduce the potential impact to **less than significant with mitigation incorporated**.

4.18.2 Mitigation Measures

Implementation of **Mitigation Measure CUL-5 and CUL-6** would reduce potentially significant impacts related to tribal cultural resources to less than significant levels

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

4.19.1 Impact Analysis

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The Project is anticipated to require relocation of utilities in the Project area, including relocation or adjustment of a utility pole at Bruceville Road. The following ~~Sacramento Municipal Utility District (SMUD)~~SMUD infrastructure is currently existing in and near the project site:

- Underground 12kV facilities along Mannington Street within the footprint of project Segment 1.
- Overhead 12kV facilities along Big Horn Boulevard within the footprint of project Segment 1.
- Overhead 69kV and 12kV facilities along the west side of Bruceville Road, north of the bridge crossing, at the proposed trail alignment point.
- Infrastructure for future underground 12kV facilities within the footprint of project Segment 2.
- A utility pole on the west side of Bruceville Road (to be relocated as part of the Project).

Utilities would be accommodated within the Project site and coordination with utility providers would take place during final design, prior to construction, and during construction. Utility coordination would

be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right-of-way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades. As a result, there would be a **less than significant impact** on wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The Project does not propose residential, commercial, or industrial development and is therefore not anticipated to generate a demand for water exceeding the City's existing capacity, even during dry and multiple dry years. As described in detail within **Section 3.8, Project Components**, Project amenities include landscaping improvements, including landscape planters. However, the addition of limited landscape plantings associated with the Project is not anticipated to require irrigation water volume exceeding the City's existing water supplies, even during dry or multiple dry years. Therefore, impacts associated with development of the Project are considered **less than significant**.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The Project is not a residential, commercial, or industrial development that would require wastewater treatment and the trails and sidewalks would not generate a demand for wastewater treatment. There would be **no impact** on wastewater treatment systems.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. The Kiefer Landfill is the permitted landfill facility in Sacramento County handling recycling and waste disposal for the County and surrounding areas. The Kiefer Landfill is a 1,084-acre Class III landfill that has a maximum permitted capacity of 117,400,000 cubic yards. Based on projected waste flows, the existing 1,084-acre landfill has been operating below permitted capacity and has a projected lifespan through 2064 (Cal Recycle 2023). The Kiefer Landfill is permitted to accept up to 744 vehicles and 10,815 total tons of refuse per day (County of Sacramento 2012). Project construction would generate limited construction debris and excavated soil. Construction-related waste would therefore not exceed permitted landfill capacity because Project-related waste volumes are anticipated to only be generated during the construction period, which will be of limited duration and will generally consist of earthwork and paving and would not involve demolition or other activities resulting in generation of large volumes of waste. Therefore, impacts associated with development of the Project are considered **less than significant**.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The Sacramento Regional Solid Waste Authority (SRSWA) is the regional agency handling recycling and waste disposal for the Sacramento region. The Environmental Management Department (EMD) is the Local Enforcing Agency for Sacramento County, enforcing State

and local solid waste laws and SRSWA ordinances. Minimal solid waste would be generated from the Project during the construction period and would be disposed of at an appropriately permitted and established solid waste facility. All construction debris and excavated soil would be disposed of according to relevant federal, State, and local statues and regulations related to solid waste and impacts are, therefore, considered **less than significant**.

4.19.2 Mitigation Measures

No mitigation is warranted.

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	■
a) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	■
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

4.20.1 Impact Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The City is in a "Local Responsibility Area" and is not in an area classified as a "Very High Fire Hazard Severity Zone" (California Department of Forestry and Fire Protection 2023). Therefore, questions "a" through "d" above are not applicable. As discussed in **Section 4.9**, ***Hazards and Hazardous Materials*** and **Section 4.15**, ***Public Services***, the Project is served by the CCSDFD and two CCSDFD fire stations are close to the Project site, including Fire Station 76, located at 8545 Sheldon Road, and Fire Station 74 located at 6501 Laguna Park Drive. It is therefore anticipated that existing fire protection facilities in the City would be able to provide fire protection services for the trail. **No impact** related to wildfire would result from development of the Project.

4.20.2 Mitigation Measures

No mitigation is warranted.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	■	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

4.21.1 Impact Analysis

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact with Mitigation Incorporated. Several special-status plants and animals have the potential to occur within the Project site and are detailed in **Section 4.4**, **Biological Resources**. In addition, sensitive habitats are also present within the Project site. Development of the Project would have the potential to result in significant impacts to these resources. However, implementation of **Mitigation Measures BIO-1 through BIO-33**, would reduce potential impacts to biological resources to less than significant levels.

Two cultural resources are present within the Project site. The historic built environment resource includes the Laguna Creek Bridge (240405). The Laguna Creek Bridge was previously evaluated by Caltrans and determined to not be eligible for listing in the NRHP or CRHP.

Archaeological site (P-34-005386/CA-SAC-001278H) is also located within the Project site and consists of historic foundations and refuse scatter. Phase II testing was conducted from November 16 to November 23, 2020. After clearing the site of brush, a total of eight (8) surface features were recorded, including one feature that resulted in an expansion of the resource boundary to the west. This new area was not

included in the Phase II excavations and thus the entirety of site (P-34-005386/CA-SAC-001278H) was not fully evaluated for its eligibility for listing in the NRHP. Therefore, Caltrans assumed eligibility for listing P-34-005386 in the NRHP for purposes of this Project only. P-34-005386 would therefore also be considered eligible for listing in the CRHP. Given the assumption of eligibility, due to the lack of evaluation for the portion of the resource located outside of the Project site, project-related impacts would be considered potentially significant. However, implementation of **Mitigation Measures CUL-1 through CUL-6**, would reduce potential impacts to cultural resources to less than significant levels by establishing an ESA around the unevaluated portion of P-34-005386 and requiring installation of exclusion fence and spot monitoring to ensure the integrity of the ESA is maintained throughout Project construction.

With implementation of **Mitigation Measure CUL-1**, steps would be taken to halt work and coordinate with UAIC and Wilton Rancheria if an inadvertent discovery is made, and **Mitigation Measure CUL-2** requires the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training.

With the implementation of **Mitigation Measures BIO-1 through BIO-33 and CUL-1 through CUL-6**, the Project's potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory would be **less than significant with mitigation incorporated**.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Less Than Significant Impact with Mitigation Incorporated. As detailed in the Project Description, multiple development Projects are adjacent to the Project. As of December 2023, the following projects are directly adjacent to the Project: Sheldon Farms North (City Project No. EG-18-019, under construction as of December 19, 2023), City Affordable Housing Project (formerly known as Sheldon Farms South (City Project No. EG-18-024), undergoing planning review), The Trojan Storage II (City Project No. EG-20-018, under construction as of December 19, 2023), AAA Services Building (City Project No. EG-20-014, approved), The Lyla Development (under construction as of December 19, 2023), and the Big Horn Professional Center (City Project No. EG-16-051 approved). The Project site is zoned Open Space (O), High Density Residential– Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC).

Considering past, present, and probable future projects, the Project would:

- Have no cumulative impacts on Agriculture and Forestry Resources, Mineral Resources, Population and Housing, Public Services, and Wildfire;

- Have less than significant cumulative impacts on Aesthetics, Energy, Greenhouse Gas Emissions, Hydrology and Water Quality, Transportation, and Utilities and Service Systems; and

- Have less than significant cumulative impacts with mitigation incorporated on Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use and Planning, Noise, Recreation, and Tribal Cultural Resources.

Details of each resource area follow.

Aesthetics. As discussed in **Section 4.1**, **Aesthetics**, although the Project would result in changes to the visual setting by introducing a new asphalt surface and removing approximately 3.79 acres of vegetation within the Project site, the Project would also introduce landscape planters. The existing viewshed is currently subject to visual encroachment from residences and/or commercial buildings in the background or adjacent to the Project. The trail would largely follow existing informal foot paths currently utilized regularly by people in the surrounding area. Development of the Project would not include major vertical features or other visual intrusions that would block views of the surrounding suburban setting or natural features. vertical elements would be minor, consisting of potentially bench seating at three to four locations. The trail is designated for use between dawn and dusk, negating the need for trail lighting. However, recreational users may access the trail at night using headlamps or flashlights. These occasional light sources however would be directed towards the trail alignment to guide pedestrian or bike travel and would therefore not be expected to adversely affect nighttime views. The Project's contribution to cumulative impacts related to Aesthetics would, therefore, be **less than significant**.

Agriculture and Forestry Resources. As discussed in **Section 4.2**, **Agriculture and Forestry Resources,** no important farmlands or forestry resources are mapped at the Project site. Therefore, the Project would have **no impact** on cumulative impacts related to agriculture and forestry resources.

Air Quality. As discussed in **Section 4.3**, **Air Quality,** the trail and sidewalks would be used by pedestrians and bicyclists; consequently, long-term operations would not generate emissions. Temporary emissions, as depicted in **Table 4-1**, would not exceed the applicable SMAQMD thresholds or contribute to localized concentrations of air pollutants at nearby receptors. The Project's contribution to cumulative impacts related to Air Quality Resources would, therefore, be **less than significant**.

Biological Resources. As discussed in **Section 4.4**, **Biological Resources**, although the Project would result in the removal of approximately 3.79 acres of annual grassland and temporary impacts to approximately 2.48 acres, this is a common habitat type within the region and no special-status plants are known to occur or were observed during surveys. The Project is anticipated to permanently impact 3.79 acres and temporarily impact 2.48 acres of annual grassland; directly impact 0.01 acre of depressional seasonal wetland and 0.06 acre of vernal pool; and temporarily impact 0.01 acre of depressional seasonal wetland and 0.03 acre of vernal pool. Federally threatened vernal pool fairy shrimp and vernal pool tadpole shrimp; CDFW Special Animals, California linderiella, midvalley fairy shrimp, hairy water flea, Ricksecker's water scavenger beetle; State and Federally threatened giant garter snake; California Species of Special Concern and Federally threatened western pond turtle; CDFW Species of Special Concern western spadefoot; State threatened Swainson's hawk, State threatened and California Species of Special Concern tricolored blackbird; State Fully Protected white-tailed kite, California Species of Special Concern yellow-headed blackbird, and migratory birds and raptors, have the potential to occur within the Project site. With implementation of **Mitigation Measures BIO-1 through BIO-33**, the Project's contribution to cumulative impacts on biological resources would be reduced to a level that is **less than significant with mitigation incorporated**.

Cultural Resources. As discussed in **Section 4.5**, **Cultural Resources**, the archaeological resource within the Project site is considered eligible for listing in the NRHP and on the CRHP. Implementation of **Mitigation Measures CUL-1 through CUL-4** would require the establishment of an ESA, exclusion fence installation and spot monitoring to ensure the integrity of the ESA is maintained. Implementation of **Mitigation Measure CUL-5**,steps would be taken to halt work and coordinate with UAIC and Wilton Rancheria if an inadvertent discovery is made, and **Mitigation Measure CUL-6** requires the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training. With the implementation of **Mitigation Measures CUL-5 and CUL-6**, the Project contribution to cumulative impacts to cultural resources would be **less than significant with mitigation incorporated**.

Energy. As discussed in **Section 4.6**, **Energy**, the Project aligns with several City Land Use and Mobility General Plan policies, LU-2-4, LU-4-1, MOB-3-7, and MOB-4-3 related to reductions in energy consumption by promoting pedestrian and bicycle mobility and access and alternative modes of transportation. Unnecessary consumption of energy resources would be avoided through implementation of SMAQMD's Basic Construction Emission Control Practices and compliance with Caltrans' Standard Specifications Section 14 and 14-9.02, as described in the Project description. The Project's contribution to cumulative impacts on energy would be **less than significant**.

Geology and Soils. As discussed in **Section 4.7**, **Geology and Soils**, the City overlies the Riverbank and Laguna Formations (CDOC 2009), which have yielded fossils in Sacramento County (City of Elk Grove 2018). Projects are required to implement mitigation measure MM 5.6.5 of the City's General Plan EIR Update for inadvertent discovery of paleontological resources (City of Elk Grove 2018). Implementation of **Mitigation Measure GEO-1** would result in a less than significant impact related inadvertent discovery of paleontological resources during construction, by requiring worker awareness training, cease work and reporting/mitigation plan development in the event of inadvertent discovery.

The Project contribution to cumulative impacts on paleontological resources would be **less than significant with mitigation incorporated**.

Greenhouse Gas Emissions. As discussed in **Section 4.8**, **Greenhouse Gas Emissions**, the Project would comply with CAP measures, TACM-3: Intracity Transportation Demand Management and TACM-4: Pedestrian and Bicycle Travel, which intend to implement strategies and policies that reduce the demand for personal motor vehicle travel for intracity (local) trips and provide for safe and convenient pedestrian and bicycle travel through implementation of the BPTMP and increased bicycle parking standards, respectively. The Project would also be consistent with Measure TACM-5: Limit Vehicle Miles Traveled. The goal of Measure TACM-5 is to limit new VMT in the City, while prioritizing low VMT projects which promote more sustainable transportation modes such as biking, walking, and public transportation. Therefore, the Project would be consistent with all applicable CAP measures. The Project's cumulative contribution to impacts related to Greenhouse Gas Emissions would be **less than significant**.

Hazards and Hazardous Materials. As discussed in **Section 4.9**, **Hazards and Hazardous Materials**, no hazardous emissions or hazardous materials, substances, or waste would be handled during regular operation of the sidewalks and trails. Transport, storage, and disposal of hazardous materials would be subject to federal, State, and local regulations. Yellow traffic stripes/ thermoplastic typically contain heavy metals, including lead and chromium, at concentrations in excess of the hazardous waste thresholds established by the CCR (California Code of Regulations) and may produce toxic fumes when heated. Consequently, any yellow traffic striping within the Project area that would require modification

and/or removal would require proper disposal, which may include disposal at a Class 1 disposal facility. **Mitigation Measure HAZ-1** requires a Hazardous Materials Compliance Plan be prepared in accordance with Caltrans Standard Specifications prior to commencement of construction to address metals content of any yellow and white roadway striping with the Project area. The Project contribution to cumulative impacts on hazardous materials would be **less than significant with mitigation incorporated**.

Hydrology and Water Quality. As discussed in **Section 4.10**, **Hydrology and Water Quality**, the Project, present, and foreseeable future projects are required to comply with the City's General Plan Policies NR-3-2, NR-3-3, and LU-5-13, meet the performance standards set forth in the City's NPDES MS4 Permit, and adhere to Section 16.44 (Land Grading and Erosion Control) of the Municipal Code. Project-related contributions to cumulative hydrology and water quality impacts are considered **less than significant**.

Land Use and Planning. As discussed in **Section 4.11**, **Land Use and Planning**, improvements would be constructed on multiple parcels identified as giant garter snake conservation area by the USFWS. These areas were established for purposes of mitigating Sacramento County's Lower Laguna Flood Control Project implemented in the late-1990s. The Project-specific Biological Assessment will be reviewed by USFWS during Section 7 consultation with Caltrans (NEPA lead agency). Project-related impacts to the deed restriction areas are anticipated to be less than significant through consultation with the USFWS, as described in **Mitigation Measure LU-1**. The Project's cumulative contribution to Land Use related impacts would be **less than significant with mitigation incorporated**.

Mineral Resources. As discussed in **Section 4.12**, **Mineral Resources**, Elk Grove is mapped entirely in Mineral Resource Zone 3 (MRZ-3), which is defined as "Areas containing mineral deposits, the significance of which cannot be evaluated from available data" (CDOC, Division of Mines and Geology 1999). No active mining operations are present on or near the Project site, and development of the Project would not interfere with the extraction of any known mineral resources. **No cumulative impact** to minerals resources would result from development of the Project.

Noise. As discussed in **Section 4.13**, **Noise**, the Project would accommodate pedestrians and bicyclists, and would not accommodate motorized vehicles. No substantial operational noise sources would be added to the baseline condition and construction-related noise impacts would be temporary and short-term. The Project would be required to comply with the Section 6.32.080 of the City's Municipal Code and Caltrans' Standard Specifications Section 14-8. **Mitigation Measures NOI-1 and NOI-2** would reduce temporary construction noise levels at nearby sensitive receptors. With the implementation of **Mitigation Measures NOI-1 and NOI-2**, the Project contribution to cumulative impacts on noise would be **less than significant with mitigation incorporated**.

Population and Housing. As discussed in **Section 4.14**, **Population and Housing,** the Project would not extend roads or infrastructure into previously undeveloped areas. Development of the Project would have **no cumulative impact** on unplanned population growth or housing.

Public Services. As discussed in **Section 4.15**, **Public Services**, the Project would have no impact on schools or other public facilities and would have a less than significant impact on fire and police protection services. Development of the Project would provide increased recreational use and transportation opportunities for local pedestrians and bicyclists, consistent with the City's BPTMP and SACOG Master Plan goals. The Project would not involve residential development or employment-generating land uses and, therefore, would not result in increased population that would require additional or expanded park facilities. The City's Department of Public Works, Operation and

Maintenance Division is responsible for maintaining streets, bike lanes, multi-use trails, traffic signs and pavement markings, sidewalk, curb and gutter, traffic signals, street lights, storm drain system, creeks and channels, roadside ditches, median and frontage landscaping, and graffiti on public property (City of Elk Grove 2023c). The City of Elk Grove and CCSD are responsible long-term tail maintenance. While development of the Project would introduce new responsibilities, the BPTMP identifies the Project at the Project location. Correspondingly, the Project would have a **less than significant cumulative impact** on public services.

Recreation. As discussed in **Section 4.16**, **Recreation**, improvements have been designed to formalize trail alignments in areas where existing informal use already occurs connecting multiple existing established neighborhoods, providing improved connections to these parks, consistent with the City's goals.. While some increased use of parks is anticipated, it is not anticipated that the magnitude of increase would induce the need for new or physically altered park facilities, as access via existing informal trails currently occurs. The Project would not involve residential development or employment-generating land uses and, therefore, would not result in increased population that would lead to accelerated deterioration or require construction or expansion of recreational facilities. Implementation of mitigation measures for Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use, Noise, and Tribal Cultural Resources would reduce impacts on recreational facilities to be **less than significant with mitigation incorporated**.

Transportation. As discussed in **Section 4.17**, **Transportation**, the Project would have less than significant impacts related to conflicts with transportation plans, ordinances, policies, and constitutes a project type that is not likely to lead to a substantial or measurable increase in VMT. Correspondingly, the Project would have **no cumulative impact** on transportation.

Tribal Cultural Resources. As discussed in **Section 4.18**, **Tribal Cultural Resources**, **Mitigation Measure CUL-5** outlines the steps that would be taken to halt work and coordinate with UAIC and Wilton Rancheria if inadvertent discovery occurs. **Mitigation Measure CUL-6** discusses the inclusion of archaeological and Tribal Cultural Resource awareness during construction worker environmental training in order to brief construction personnel prior to commencement of ground disturbance. It is anticipated that present and future development in the area would implement similar mitigation measures due to CEQA requirements and required Native American consultation. Therefore, cumulative impacts related to tribal cultural resources are considered **less than significant with mitigation incorporated**.

Utilities and Service Systems. As discussed in **Section 4.19**, **Utilities and Service Systems**, the Project is anticipated to require relocation of utilities in the Project site, including relocation or adjustment of a utility pole at Bruceville Road. Coordination with utility providers would take place during final design, prior to construction, and during construction. It is anticipated that present and future development in the area will need to conduct similar coordination. Project amenities may include landscaping improvements. As described in detail within Section 3.8, ***Project Components***, Project amenities may include 2,350 square feet of landscape planters. However, the addition of limited landscape plantings associated with the Project is not anticipated to require irrigation in a volume that would result in exceeding the City's water supplies, even during dry or multiple dry years. The Project would, therefore, result in a **less than significant cumulative impact** on utilities and service systems.

Wildfire. As discussed in **Section 4.20**, **Wildfire**, the City is in a "Local Responsibility Area" and is not in an area classified as a "Very High Fire Hazard Severity Zone" (California Department of Forestry and Fire

Protection 2023). The Project is served by the CCSDFD and two CCSDFD fire stations are close to the Project site, including Fire Station 76, located at 8545 Sheldon Road, and Fire Station 74 located at 6501 Laguna Park Drive. It is therefore anticipated that existing fire protection facilities in the City would be able to provide fire protection services for the trail. The Project would have **no cumulative impact** related to wildfires.

Mandatory Findings of Significance. Implementation of **Mitigation Measures AQ-1 through AQ-3, BIO-1 through BIO-33**, **CUL-1 through CUL-6**, **GEO-1**, **HAZ-1**, **NOI-1**, **NOI-2**, and **LU-1** would reduce potentially significant impacts related to mandatory findings of significance to less than significant levels.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated. Project-related adverse effects on human beings have been identified within this IS related to air quality and construction noise. As discussed in **Section 4.3**, **Air Quality**, air quality impacts from construction would be less than significant with mitigation incorporated. As discussed in **Section 4.9**, **Hazards and Hazardous Materials**, potential impacts to exposure to hazardous materials from construction would be less than significant with mitigation incorporated. s discussed in **Section 4.13**, **Noise**, potential noise impacts from construction would be less than significant with mitigation incorporated. Project-related effects on human beings are, therefore, considered **less than significant with mitigation incorporated**.

5.0 CEQA DETERMINATION

On the basis of this initial evaluation:

☐	I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
■	I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect I) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
Mohammad Sadiq, P.E., Senior Civil Engineer	City of Elk Grove
Printed Name	For

6.0 REPORT PREPARATION

6.1 LEAD AGENCY

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6.2 CONSULTANT STAFF

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7.0 REFERENCES

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IS/MND Attachment A

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS PROJECT (WTL019)

Purpose of Mitigation Monitoring and Reporting Program: The California Environmental Quality Act (CEQA), Public Resources Code Section 21081.6, requires that a Mitigation Monitoring and Reporting Program (MMRP) be established upon completing findings. CEQA stipulates that "the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This MMRP has been prepared in compliance with Section 21081.6 of CEQA to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the project, as required. A table (attached) has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, the responsible person/agency for implementing the measure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the Initial Study and Mitigated Negative Declaration.

In addition to the table of individual mitigation measures, a separate table of avoidance and minimization measures is also included for use by the lead agency.

The City of Elk Grove is the lead agency for the Project under CEQA and shall administer and implement the MMRP. The City is responsible for review of all monitoring reports, enforcement actions, and document disposition. The City shall rely on information provided by the Project site observers/monitors (e.g., construction manager, Project manager, biologist, archaeologist, etc.) as accurate and up-to-date and shall provide personnel to field check mitigation measure status, as required.

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Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
AIR QUALITY				
AQ - 1: Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Construction	City of Elk Grove/ Construction Contractor		
AQ - 2: The construction contractor shall comply with Caltrans' Standard Specifications Section 14 of Caltrans' Standard Specifications (2018) and Section 14-9.02 Air Pollution Control. Section 14-9.02 states: a. Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Government Code § 11017 (Pub Cont Code § 10231). b. Do not dispose of material by burning.	Construction	City of Elk Grove/ Construction Contractor		
AQ-3: Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust would be followed. The general requirements of Rule 403 are: a. 301 Limitations: A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to: i. 301.1 Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land. ii. 301.2 Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts; iii. 301.3 Other means approved by the Air Pollution Control Officer.	Construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIOLOGICAL RESOURCES				
BIO-1 A qualified USFWS- and CDFW-approved biologist shall conduct botanical surveys within the typical identification periods for all potentially occurring special-status plant species within suitable habitat prior to commencement of construction activities. For the special-status plant species that may potentially occur, two rounds of focused plant surveys would be necessary to survey within the typical identification periods for all potentially occurring special-status plants. The first round of surveys would be conducted in March or April and the second round of surveys would be conducted in May or June. If no special-status plants are observed, then a letter report documenting the results of the survey will be provided to the Project proponent for their records, and no additional measures with respect to special-status plants are recommended.	Permitting/Final Design/Prior to Construction	City of Elk Grove		
BIO-2 If any special-status plants are found within the Project site, they should be avoided to the extent feasible. The plant locations will be identified on a map, and an agency-approved buffer will be established around the plants with high visibility construction fencing. The construction fencing will remain intact until construction is complete.	Permitting/Final Design	City of Elk Grove		
BIO-3 If special-status plants cannot be avoided, then a mitigation plan will be prepared in consultation with CDFW. CDFW would need to approve the mitigation plan prior to commencement of construction activities that would impact special-status plants.	Permitting/Final Design	City of Elk Grove		
BIO-4 Onsite vernal pool and depressional seasonal wetlands represent suitable habitat for special-status plant species and vernal pool branchiopods and invertebrates. If avoidance is not feasible, then impacts to suitable vernal pool habitat shall be mitigated at a 2:1 ratio (two acres mitigated for every acre lost) or as determined through consultation between USFWS and Caltrans. Mitigation shall be accomplished through preservation of suitable vernal pool habitat or purchase of vernal pool preservation credits at a USFWS- approved conservation bank prior to commencement of activities within suitable habitat. Final habitat acreages, mitigation ratios, and other project-specific compensatory requirements shall be determined through consultation between USFWS and Caltrans.	Permitting/Final Design/ Prior to Construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-5 Ground-disturbing work shall take place during the GGS active season, if feasible, while snakes are more likely to avoid potential disturbances. The general active season for GGS is May 1 – October 1 but seasonal weather patterns should be considered during construction to provide flexibility.	Construction	City of Elk Grove		
BIO-6 A USFWS-approved qualified biologist shall conduct a pre-construction survey for giant garter snake within 24 hours prior to the commencement of any construction activity within 200 feet of potential giant garter snake aquatic habitat. The qualified biologist shall provide a field report of the survey results that shall be made available to the USFWS within one (1) week of the completion of the survey. The Project area shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred within suitable habitat areas.	Pre-construction	City of Elk Grove		
BIO-7 If giant garter snake or suitable burrows are observed within the Project site during the pre-construction survey, the USFWS-approved biologist shall monitor all ground-disturbing activity within the suitable habitat area.	Pre-construction; Construction	City of Elk Grove		
BIO-8 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of work and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel shall sign a form stating that they have attended the training and understand all the measures. Proof of this instruction shall be kept on file with the Project proponent. The Project proponent shall provide the USFWS and CDFW with a copy of the training materials and copies of the signed forms indicating that training has been completed. If new construction personnel are added to the site, the crew foreman shall ensure that the personnel receive the mandatory training before starting work. Copies of signed forms shall be submitted monthly as additional training occurs for new employees. The crew foreman is responsible for ensuring that construction personnel adhere to the guidelines and restrictions.	Pre-construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-9 Exclusion fencing shall be installed along the outer edge of work along the northern edge of Segment 1 in the areas of the adjacent pond (located east of Mannington Street and north of Monterey Oaks Drive) and adjacent to Sacramento County's Lower Laguna Flood Control Project deed restricted parcels, the depressional seasonal wetland (located east of Lyndale Circle and north of Big Horn Boulevard), and along the vernal pool west of Bruceville Road.	Pre-construction	City of Elk Grove/Construction Contractor		
BIO-10 A USFWS-approved biologist will inspect the exclusion fencing weekly, and the fencing will be maintained until the end of construction. If a GGS is found onsite during construction, all activities will stop until the GGS leaves the construction area on its own. The USFWS will be notified within 24 hours of any GGS observations. No handling or capture of a GGS will occur.	Construction	City of Elk Grove/Construction Contractor		
BIO-11 During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.	Construction	City of Elk Grove/Construction Contractor		
BIO-12 Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any aquatic habitat.	Construction	City of Elk Grove/Construction Contractor		
BIO-13 The use of erosion control materials potentially harmful to GGS and other species such as mono-filament netting or similar material will be prohibited. Tightly woven fiber netting or similar material will be used to ensure GGS do not get trapped or entangled. To avoid entrapment of GGS, trenches will be covered overnight or escape ramps installed. Any pipes or hoses will be sealed with duct tape or equally effective means so that no GGS can enter them. Alternatively, pipes and hoses may be stored at least 3 feet above ground or within a part of the staging area surrounded by exclusionary fence.	Pre-construction; Construction	City of Elk Grove/Construction Contractor		
BIO-14 After completion of construction activities, the Project proponent, or its contractor, shall remove all stockpiled material and construction debris and, wherever feasible, restore disturbed areas to pre-Project conditions.	Post-construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-15 Impacts to western pond turtle will be avoided through implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures: Ground-disturbing work shall take place during the western pond turtle active season, if feasible, while turtles are more likely to avoid potential disturbances. The general active season for western pond turtle is March 1 – November 1 but seasonal weather patterns should be considered during construction to provide flexibility.	Construction	City of Elk Grove/Construction Contractor		
BIO-16 If possible, construction shall occur outside of the breeding and dispersal season (October through May) for western spadefoot in order to avoid impacts to breeding populations and aquatic metamorphs. It should be noted, this work window conflicts with the GGS and western pond turtle active season work windows as described in Mitigation Measures BIO-5 and BIO-15 (MM-9 and MM-19 in the NES). See Mitigation Measure BIO-17 (MM-22 in the NES) below for guidance if work occurs within the western spadefoot breeding and dispersal season.	Pre-construction	City of Elk Grove		
BIO-17 If construction occurs within the breeding and dispersal season, a pre-construction survey shall be conducted by a qualified biologist within the appropriate survey window to determine the presence of western spadefoot within the Project site: a. If western spadefoot are observed within the Project site, then additional measures such as a qualified biologist conducting a pre-construction survey within 24 hours prior to commencement of construction activities, conducting a pre-construction worker awareness training, and being present to monitor construction during initial vegetation clearing and ground disturbance shall be required. b. If no western spadefoot are observed within the Project site, then a letter report regarding survey results shall be made available to the Project proponent and no additional avoidance and mitigation measures for the species are recommended. c. If a western spadefoot is observed within the construction zone, then all work shall immediately halt in the vicinity of the animal and the animal will be allowed to leave the area on its own will. If the animal is in immediate danger and needs to be relocated, then it shall safely	Pre-construction; Construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
be relocated outside of the construction zone within suitable habitat and at a safe distance from all construction related activities. No work shall resume until the animal is outside of the construction zone.				
BIO-18 A qualified biologist shall conduct an environmental awareness training for all construction personnel. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.	Pre-construction	City of Elk Grove		
BIO-19 Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.5 mile of the Project site where legally permitted to directly access; all suitable nest trees within 0.5 mile of the Project site shall be surveyed using binoculars from legally accessible areas. If no active Swainson's hawk nests are identified within 0.5 mile of the Project site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the Project proponent and CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.	Pre-construction	City of Elk Grove		
BIO-20 If active Swainson's hawk nests are found within 0.5 mile of the Project site, then a qualified biologist shall contact the Project proponent and the CDFW within one day following the pre-construction survey to report the findings. Should an active nest be present within 0.5 mile of Project site, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing should be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.5 mile of the nest. Should the qualified biologist determine that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until the CDFW is consulted.	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the Project proponent and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are recommended.				
BIO-21 The Project proponent shall comply with the City of Elk Groce Swainson's Hawk Code (Chapter 16.130) to mitigate for the loss of foraging habitat.	Pre-construction	City of Elk Grove		
BIO-22 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training for active white-tailed kite nests should be similar to the training described for Swainson's hawk. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.	Pre-construction	City of Elk Grove		
BIO-23 A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities if anticipated to commence during the nesting season (between February 15 and August 31). An additional pre-construction survey should be conducted within 72 hours of commencement of ground-disturbing activities. During the surveys, suitable nest trees adjacent to the Project site shall be surveyed using binoculars from legally accessible areas. If the pre-construction survey documents that there is no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, then an additional pre-construction survey shall be conducted.	Pre-construction	City of Elk Grove		
BIO-24 If suitable nesting habitat or wintering habitat features are present for white-tailed kite on or within ¼-mile of the Project site, or if nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall conduct surveys within 0.25-mile of the Project area within 14 days and again within 3 calendar days prior to the start of Project activities during the nesting season (February 1 – August 31). Surveys shall be done during the appropriate time	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
of day to maximize detectability and shall concentrate on suitable nesting structures for the species. If an active nest is discovered during the survey or during construction, a qualified biologist shall establish a minimum 0.25-mile no disturbance buffer around active nests to start until the nesting season has ended or until the qualified Biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Permittee shall halt any Project activities that could affect the foraging or feeding behavior of WTKI. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance. ~~establish a minimum ¼ mile buffer zone around active nests to start until the nesting season has ended or until the qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival.~~ The biologist will mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. The nest buffer should be assessed for effectiveness and may require increase or decrease in size depending on the birds' tolerance level to the disturbance. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.				
CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and that no forced fledging occurs. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.				
BIO-25 If construction is expected to occur during the nesting season (February 15 through August 31), then a qualified biologist will conduct an environmental awareness training for all construction personnel. The training will include information pertaining to the potential for active nests to occur within the Project site and procedures to follow in the event that an active nest is found during	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
construction.				
BIO-26 If feasible, then construction and any tree/shrub removal should be completed between September 1 and February 14, outside of the nesting season.	Pre-construction	City of Elk Grove		
BIO-27 If construction begins during the nesting season (February 15 through August 31), then a pre-construction nesting bird survey shall be conducted within 7~~14~~ days prior to the commencement of construction activities and vegetation removal. If the pre-construction survey results in no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If active nests are located within or directly adjacent to the Project site then the following shall occur: a. If any active nests are located, then a qualified biologist shall establish an appropriate species-specific buffer zone (generally a 500~~75~~-foot standard buffer for most songbirds, a 0.5-mile ~~300-foot~~ standard buffer for most raptors, and ~~up to~~ a buffer of 0.5-mile ~~1,320~~ 2,640 ~~feet~~ for Swainson's hawk) around the nests. The buffer may need to be increased based on the birds' tolerance level to the disturbance; the qualified biologist will confirm whether or not the buffer is sufficient to avoid take/nest failure and will increase the buffer if needed. The qualified biologist shall mark the buffer zone with highly visible flagging or pin flags and maintain the buffer zone until all construction has been completed, until the end of the breeding season, or until the young have successfully fledged and/or the nest is no longer active. A qualified biologist will monitor active nests weekly during construction to evaluate potential nesting disturbance caused by construction activities. If establishing the typical buffer zone is impractical, then the qualified biologist may reduce the buffer depending on the species, and daily monitoring is also recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied or that it has been determined that nesting activity is not negatively affected by adjacent Project construction activities. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and the CDFW for their records.	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Monitoring of potential nesting activities in the Project site should continue, at a minimum, until the end of the avian nesting season (September 1). If a lapse in Project-related work of 7 calendar days or longer occurs, the qualified biologist shall complete another focused survey before Project activities can be reinitiated.				
BIO-28 Prior to commencement of ground disturbing activities, the City shall obtain all required regulatory authorizations from the USACE and RWQCB for the discharge of dredged or fill material within waters of the U.S. and/or waters of the State.	Permitting/Final Design	City of Elk Grove		
BIO-29 To mitigate for the permanent loss of waters of the U.S. resulting from development of the proposed Project, the City shall submit a compensatory mitigation plan to the USACE and RWQCB proposing in-kind replacement of impacted waters of the U.S. at a minimum 1:1 ratio, or as otherwise required by the USACE and RWQCB.	Permitting/Final Design	City of Elk Grove		
BIO-30 Prior to commencement of activities within resources subject to Fish and Game Code Section 1602, the City shall enter into a Streambed Alteration Agreement with CDFW.	Permitting/Final Design	City of Elk Grove		
BIO-31 All aquatic resources delineated within the Project site are likely to be determined to be classified either as waters of the U.S. and/or waters of the State. If it is determined that some of the aquatic resources within the Project site are not subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the Project result in impacts to these features. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge shall be filed for impacts to non-federal waters, if required.	Permitting	City of Elk Grove		
BIO-32 Prior to ground-disturbing activities and any tree removal, a Tree Removal	Permitting	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Permit shall be obtained from the City, and the Project proponent shall comply with all of the conditions of the permit. As part of the approval of a tree permit for removal of a tree(s), the approving authority shall require mitigation for the loss of the tree consistent with Article IV (Mitigation for Tree Loss) of Chapter 19.12 of the Municipal Code. A tree preservation plan shall be prepared for the Project identifying all protection and mitigation measures to be taken. The measures shall remain in place for the duration of construction activities at the Project site. The tree preservation plan shall be submitted to and approved by the City Arborist.				
BIO-33 Tree Protection Measures • Tree Protection Fencing, consisting of chain link or four-foot tall, brightly-colored, high-visibility plastic fencing, shall be placed around the perimeter of the critical root zone (CRZ) (one foot per inch of trunk diameter) or dripline radius + 1 foot, whichever is greater. This is the minimum distance for placing protective fencing. Tree protection fencing should be placed as far outside of the CRZ as possible. Signs shall be placed along the fence denoting this as a "Tree Protection Zone" that shall not be moved until construction is complete. Trees or tree clusters with canopy extending beyond 50 feet from proposed Project boundaries may be fenced only along sides facing the Project. In cases where proposed work infringes on the CRZ, fence shall be placed at edge of work; • Whenever possible, fence multiple trees together in a single CRZ; • Tree protection fencing shall not be moved without prior authorization from the Project Arborist and the City, as appropriate; • No parking, portable toilets, dumping or storage of any construction materials, grading, excavation, trenching, or other infringement by workers or domesticated animals is allowed in the CRZ;	Pre-construction; Construction	City of Elk Grove/Construction Contractor		
• No signs, ropes, cables, or any other items shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist; • No tree-toxic materials shall be dumped on the Project site (e.g., gasoline, herbicide, salt);				

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
• Prior to the installation of new asphalt, weed control chemicals shall not be applied where they can leach into the dripline of any protected tree. • Underground utilities should be avoided in the CRZ, but if necessary, shall be bored or drilled. If boring is impossible, all trenching will be done by hand under the supervision of an ISA-Certified Arborist; • No cut or fill within the dripline of existing protected tree is permitted except as shown on the final development plans. If cut or fill within the dripline is unavoidable, any mitigation requirements shall be determined by the City, as appropriate; • Pruning of any retained tree shall be done under the supervision of an ISA-Certified Arborist and in accordance with current ISA standards and ANSI A300 standards; • All wood plant material smaller than six inches in diameter shall be mulched on site. Resulting mulch shall be spread in a layer four to six inches deep in the CRZ of preserved trees. Mulch shall not be placed touching the trunk of preserved trees; and • Appropriate fire prevention techniques shall be employed around all significant trees to be preserved. This includes cutting tall grass, removing flammable debris within the CRZ, and prohibiting the use of tools that may cause sparks, such as metal blade trimmers or mowers.				
CULTURAL RESOURCES				
CUL-1 No project-related activities (e.g. grubbing, staging, equipment parking/storage, traffic handling signage, etc.) shall take place within the ESA located within the unevaluated portion of P-34-005386 (CA-SAC-001278H) shown on Figure 4 of the September 2021 *Finding of No Adverse Effect for the Laguna Creek Trail and Bruceville Road Sidewalk improvements Project, Sacramento County, California*.	Construction	City of Elk Grove/Construction Contractor		
CUL-2 At least two weeks prior to commencing construction, the construction contractor, in consultation with the City Project Engineer and the Caltrans	Pre-construction	City of Elk Grove/Construction		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Archaeologist, will delineate the boundaries of the ESA. Construction exclusion fence surrounding the ESA outside of the Project Impact Area shall be installed one calendar week prior to the initiation of work near the archaeological site.		Contractor		
CUL-3 Information contained in the final ESA Action Plan shall be included within the Permits, Agreements and Mitigation Form and shall be included on the Project specification and estimates package. The importance of the ESA, as well as the prohibition of any activities within the ESA, shall be relayed to the construction contractor and personnel during a pre-Project Worker Awareness Training conducted prior to commencement of Project construction. The importance of ESA shall be discussed with construction personnel, and it will be stressed that no construction activity (including storage or staging of equipment or materials) should occur within the ESA and that workers must remain outside of the ESAs at all times. Additionally, personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.	Permitting/Final Design; pre-construction	City of Elk Grove		
CUL-4 The Caltrans Archaeologist shall be notified five business days prior to commencement of work in the area of the ESA. The Caltrans Archaeologist shall conduct weekly drop-in monitoring of the ESA area to ensure no breaching of the ESA.	Pre-construction; Construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
CUL-5 If Native American cultural materials are discovered during Project construction, then all work shall halt within 100 feet of the discovery and the Resident Engineer shall be immediately notified. The City shall contact the United Auburn Indian Community of the Auburn Rancheria (UAIC) and the Wilton Rancheria regarding the discovery. The Resident Engineer, the City, an archaeologist meeting the Secretary of the Interior's Standards in Archaeology, the UAIC, and the Wilton Rancheria shall assess the discovery to determine if it qualifies as a Tribal Cultural Resource. The appropriate treatment of the discovery, including any applicable avoidance or mitigation strategies, shall be determined in consultation with the City, the UAIC, and the Wilton Rancheria. Construction activities will not commence until the appropriate treatment has been determined and any applicable mitigation has been completed. Mitigation shall follow the recommendations detailed in Public Resources Code sections 21084.3(a) and (b), and CEQA Guidelines section 15370.	Construction	City of Elk Grove/Construction Contractor		
CUL-6 Worker environmental training will include archaeological and Tribal Cultural Resource awareness. The training shall be developed in coordination with the UAIC and the Wilton and will be provided prior to commencement of Project construction activities for all personnel working within the Project site. The training will identify the appropriate point of contact in the case of Tribal Cultural Resource discovery and will include relevant information regarding Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also underscore the requirement for confidentiality and culturally appropriate treatment of Tribal Cultural Resources.	Pre-construction	City of Elk Grove		
GEOLOGY AND SOILS				
GEO-1 Before the start of any earthmoving activities, the City shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.				
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1 Prior to the commencement of construction, a hazardous materials compliance plan shall be prepared by a Certified Industrial Hygienist to address the metals content of any yellow and white roadway striping with the Project area. This plan shall be prepared in accordance with Caltrans Standard Specifications Section 14-11.12C for removal of yellow traffic stripe and pavement markings that produce hazardous waste residue.	Pre-construction	City of Elk Grove		
LAND USE AND PLANNING				
LU-1 Prior to implementing construction of proposed improvements, the City shall consult with the USACE and USFWS to obtain the applicable regulatory authorizations for project development.	Permitting	City of Elk Grove		
NOISE				
NOI-1 *Construction Equipment Sound Control*. All internal combustion engines, including trucks, shall be equipped with the manufacturer-recommended mufflers and silencing devices. Operation of an internal combustion engine shall not occur on the job site without the appropriate muffler.	Construction	City of Elk Grove/Construction Contractor		
NOI-2 *Neighborhood Notification Prior to Construction.* At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice to all property owners, businesses, and residents within 300 feet of the Project area. The notice shall contain a description of the Project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s).	Construction	City of Elk Grove/Construction Contractor		
RECREATION				
Implementation of mitigation measures for **Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use, Noise, and Tribal Cultural Resources** would reduce potentially significant impacts related to recreation to less than significant levels.				

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
TRIBAL CULTURAL RESOURCES				
Implementation of **Mitigation Measure CUL-5 and CUL-6** would reduce potentially significant impacts related to tribal cultural resources to less than significant levels.				
MANDATORY FINDINGS OF SIGNIFICANCE				
See **Mitigation Measures AQ-1 through AQ-3, BIO-1 through BIO-32**, **CUL-1 through CUL-6**, **GEO-1**, **HAZ-1**, **NOI-1, NOI-2, and LU-1**.				

IS/MND Attachment B

Visual Impact Assessment Memorandum

VISUAL IMPACT ASSESSMENT

Laguna Creek Trail and Bruceville Road Sidewalk Project

(for Minor Level VIA)



August 16, 2023

District 03 – SAC – Laguna Creek Trail and
Bruceville Road Sidewalk Improvements Project

Federal Aid No. CML-5479(053)
City of Elk Grove Project No. WTL019

Prepared by: Meredith Branstad **Date:** 08/16/2023
Meredith Branstad, Principal Landscape Architect
HELIX Environmental Planning, Inc.
CA License No. 5122

Approved by: _____ **Date:** _____
Caltrans District Landscape Architect
District 3

Statement of Compliance: Produced in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, as appropriate, to meet the level of analysis and documentation that has been determined necessary for this project.

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Project Location and Setting

The City of Elk Grove (City), in cooperation with the California Department of Transportation (CALTRANS), proposes multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Laguna Creek Trail and Bruceville Road Sidewalks Project (Project) is located in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, California, approximately 0.5 mile west of State Route 99, and approximately three miles east of Interstate 5. The site is located within Section 27, Township 7 North, Range 5 East on the U.S. Geological Survey (USGS) *Florin*, California 7.5-minute quadrangle (38° 25' 13" North, 121° 27' 48" West) (Figure 1, *Project Vicinity*) (Figure 2, *Project Location*).

Proposed improvements within the City would traverse through an existing undeveloped area zoned for Open Space (O), High Density Residential (RD-30), and Residential Mixed Use (RMU) (City of Elk Grove 2023).

Project Purpose and Need/Purpose and Objectives

The purpose and defined objective of the proposed Project is to construct multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Project is needed to help meet the goals of the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan (GHD, Inc. 2021), as well as the associated Sacramento County Bikeway Master Plan (SCBMP) (2011), and SACOG Master Plan (2015). The proposed Project is needed to provide connecting links that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. Development of the proposed Project would provide greater accessibility to the existing trail system within the City and make trails directly accessible to additional homes.

Build Alternative/Proposed Project

Project Components

Development of the proposed Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway), with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings (Figure 3, *Proposed Project*). A trail extension is proposed from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile).

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and subbase as needed. Base material would consist of aggregate base, with a subbase of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Proposed fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

Trail Design

As shown on Figure 3, two trail segments would be developed as a 10-foot-wide path with 2-foot wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed with a 4:1 slope.

Segment 1

Segment 1 would be constructed west of Bruceville Road and north of Big Horn Boulevard. The trail would parallel existing residential development to the west for a length of approximately 0.75 mile trending northward from the existing sidewalk at Big Horn Boulevard to the path near Mannington Street (Figure 3). The vertical profile would roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 36- to 44-foot-wide disturbance corridor for Segment 1.

Segment 2

Segment 2 would be constructed east of Bruceville Road, adjacent and parallel to Big Horn Boulevard for an overall length of approximately 0.16 mile (Figure 3). It is anticipated that where the Segment 2 alignment terminates, compliance with City-required Conditions of Approval for the Trojan Storage II Project (currently under construction) will result in the construction of a connecting trail segment to Lewis Stein Road. The new trail will use the existing at-grade crossing at Bruceville Road and Big Horn Boulevard to connect to Segment 1. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.

Roads and Sidewalks

Proposed sidewalk improvements would be constructed on the west side of Bruceville Road. Approximately 1,600 feet of sidewalk would be constructed between Big Horn Boulevard and the Bruceville Road Bridge over Laguna Creek (Bridge No. 24C0405) and 180 feet of sidewalk would be constructed from the bridge to existing sidewalk. In addition, the guardrail at the bridge would be replaced and would roughly correspond to the back of sidewalk in this location. New Americans with Disabilities Act (ADA) compliant ramps would be constructed at Mannington Street and at Mannington Street/Wallbridge Way.

Approximately 230 feet of sidewalk would be constructed at an existing gap in the sidewalk between Di Lusso Drive and Laguna Boulevard. At this location, the roadway surface of Bruceville Road would be extended to match up with the proposed sidewalk.

Culvert Crossings and Hydrology
The proposed Project would maintain existing grades and drainage patterns to the greatest extent feasible and side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be located in upland areas and sized based on existing topographic information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures.

Road Crossings and Signage
Trail pavement would be delineated by distinct paint, markings, and signs consistent with City standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City may also elect to provide wayfinding signs. According to the Bicycle, Pedestrian, and Trails Master Plan (BPTMP), all bicycle striping and wayfinding signs would also conform to the CALTRANS Highway Design Manual, Chapter 1000 (GHD, Inc. 2021).

Utilities
Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right of way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades.

Construction
Construction of the proposed Project would commence in summer of 2025 and would take approximately seven to nine months to complete.

No-Build Alternative/ No Project Alternative
Under the No-Build, or "No-Project" Alternative, the trails and sidewalks would not be constructed. Gaps in the City's trail system and sidewalks would remain.

This VIA describes the site characteristics and confirms negligible changes to the visual setting.

Regulatory Setting
The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA), in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Visual Setting

The Project's visual setting is a mixture of undeveloped open land and developed suburbs and commercial uses; the site may be described as "developing" in *character*. The overall topography is flat, except for the depressed channel of Laguna Creek and berms adjacent to it. Natural landcover consists of disturbed grassland. Water features are Laguna Creek and a man-made lake east of Mannington Drive and north of Monterey Oak Drive. Man-made features are prevalent. Residential neighborhoods, including apartment complexes and single-family homes, surround the viewshed of the trail area with commercial development along Bruceville Road south of Big Horn Boulevard and north of Big Horn Boulevard at Lewis Stein Drive. Roadways in the viewshed are Bruceville Road and Big Horn Boulevard. Representative photographs of the site are shown in Attachment 1 and photograph locations are shown on Figure 3.

Officially designated scenic resources are also an element of describing visual character and visual quality. Federal, state, and local scenic resources are described below.

Federal/National Scenic Resources

No federally designated scenic resources are at or near the Project site. The nearest National Scenic Byway is Ebbetts Pass Scenic Byway, approximately 60 miles to the southwest of the Project (FHWA 2023). The nearest Wild and Scenic River is the American River, approximately nine miles north of the Project (National Parks Service 2023).

State Scenic Resources

The nearest State Scenic Highway is State Route 160 (SR-160), located approximately four miles west of the Project area along the Sacramento River (CALTRANS 2019).

County Scenic Resources

A segment of SR-160 from Isleton Bridge to Paintersville Bridge is officially designated as County Scenic Highway approximately six miles southwest of the Project; SR-160 and State Route 4 are also considered eligible from the Contra Costa County line up to the Sacramento city limits (CALTRANS 2019).

Other Potential Scenic Resources

Elk Grove does not have any officially designated scenic vistas; however, the City has identified parks and open space and lakes, rivers, and creeks—including Laguna Creek—as scenic resources (City of Elk Grove 2019). The City also describes agricultural landscapes and trees, particularly large or clustered adult trees, as typical scenic resources (City of Elk Grove 2019). There are no rock outcroppings, mature trees, historic buildings, or other unusual or unique features at the Project site.

Resource Change (Visual Character + Visual Quality)

The visual character of the proposed Project would be compatible with the existing character of the corridor. Proposed vertical elements would be minor, consisting of bench seating at three to four locations. At Key Views 1, 2, and 7 along Bruceville Road, the proposed sidewalk would close remnant gaps and provide continuous low-lying form, straight edges, light-grey color, and relatively smooth texture, consistent with the existing sidewalks. At Key Views 3 through 7, 8, and 9, the trail would introduce a new man-made feature consisting of a fairly flat form at ground-level and long lines from the trail edges; asphalt would be dark in color and the trail surface would be smooth in texture. The character would be substantially compatible with the existing corridor, as visual encroachments from residences and/or commercial buildings are still apparent in the background.

TERMINOLOGY*

Form: *Visual mass or shape*

Line: *Edges or linear definition*

Color: *Reflective brightness (light, dark) and hue (red, green)*

Texture: *Surface coarseness*

Vividness *is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements.*

Intactness *is the integrity of visual features in the landscape and the extent to which the exist-ing landscape is free from non-typical visual intrusions.*

Unity *is the extent to which all visual elements combine to form a coherent, harmonious visual pattern*.

*Source: CALTRANS 2023

Proposed improvements have been designed to formalize trail alignments in areas where existing informal use occurs. The visual quality of the existing corridor would therefore be slightly changed by the proposed Project. At Key Views 1, 2, and 7, the proposed Project would remove existing vegetation and construct new sidewalks along the existing road. At Key Views 4, 5, 8, and 9 visual quality would change only slightly, as the trail would follow existing informal foot paths currently utilized by people in the area. At Key View 3, the trail would remove existing vegetation and construct a paved trail path and shoulders. While the trail would result in a new man-made feature, it will parallel existing concrete sidewalks. Proposed improvements would have no change on vividness.

Resource change would be moderate to low. New sidewalks at Key Views 1, 2, and 7 would be consistent with the character of the area and would improve the visual quality due to increased intactness and unity along the road. Trails at Key Views 3 through 5 would be subject to a moderate to low change and Views 6, 8, and 9 would be a moderate change due to the urbanized character of project surroundings and visual encroachment of residential buildings in the background.

Viewer Sensitivity (Viewer Exposure + Viewer Sensitivity)

Viewer Exposure and Sensitivity: Viewers of the proposed trail and sidewalks would consist of residences, recreational users, pedestrians, and automobile drivers and passengers. Sidewalks would be viewable by pedestrians and motorists; pedestrians and motorists would have low

exposure due to the transitory nature of use surrounding proposed improvements. Adjacent residents would have the greatest exposure to project features and have a moderate-high sensitivity to visual changes. Recreational users would be exposed to project features while using the trail and given their reliance on project-related features for recreation, would therefore have a moderate-low viewer sensitivity.

Visual Impact (Resources Change + Viewer Sensitivity)

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. Key view visual ratings and discussion of each follow.

Key Views 1, 2, and 7: As discussed under Resource Change, visual quality would improve. At these locations, viewers would be pedestrians and motorists. Based on a low resource change and low viewer response by pedestrians and motorists, the visual impact would be low.

Key Views 3, 4, and 5: As discussed under Resource Change, visual quality would slightly decrease. The trail would be visible to recreational users and adjacent residents. Based on moderate-low resource change and moderate-low sensitivity of recreational users, the impact would be moderate-low on recreational users. Based on a moderate-low resource change and moderate-high viewer sensitivity, the visual impact would be moderate on residents adjacent to proposed improvements.

Key View 6, 8, and 9: As discussed under Resource Change, visual quality would slightly decrease. These trail key views would be visible to recreational users. Based on a moderate resource change and moderate-low viewer sensitivity, the visual impact would be moderate-low.

Summary

Proposed Project features would result in negligible changes to the visual setting. Officially designated federal, state, or county scenic resources are miles away from the Project site and would not be affected by the Project. While the City does not have officially designated scenic vistas, the trail's viewshed includes a creek (Laguna Creek) and open space, which are generally considered scenic resources by the City. The trail is intended to generally follow Laguna Creek and provide residents a connection to parks in the City and region. The trail would largely follow existing informal foot paths currently utilized regularly by people in the area. The trail would not require substantial fill and would be constructed at ground level. The proposed Project does not include major vertical features or other visual intrusions that would block views of the surrounding suburban setting or natural features. Proposed vertical elements would be minor, consisting of bench seating at three to four locations.

During construction, motorists and neighboring residents may observe heavy construction equipment, exposed soils during grading activities, temporary traffic control features (such as signage and orange cones), lighting, and construction workers. Visual effects due to project construction would be short-term and would cease to persist upon project completion.

The Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. The Laguna Creek Trail is designated for use between dawn and dusk, negating the need for trail lighting. However, recreational users may access the trail at night and use headlamps or flashlights while on the trail. These irregular light sources would not be expected to adversely affect nighttime views.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation measures are required.

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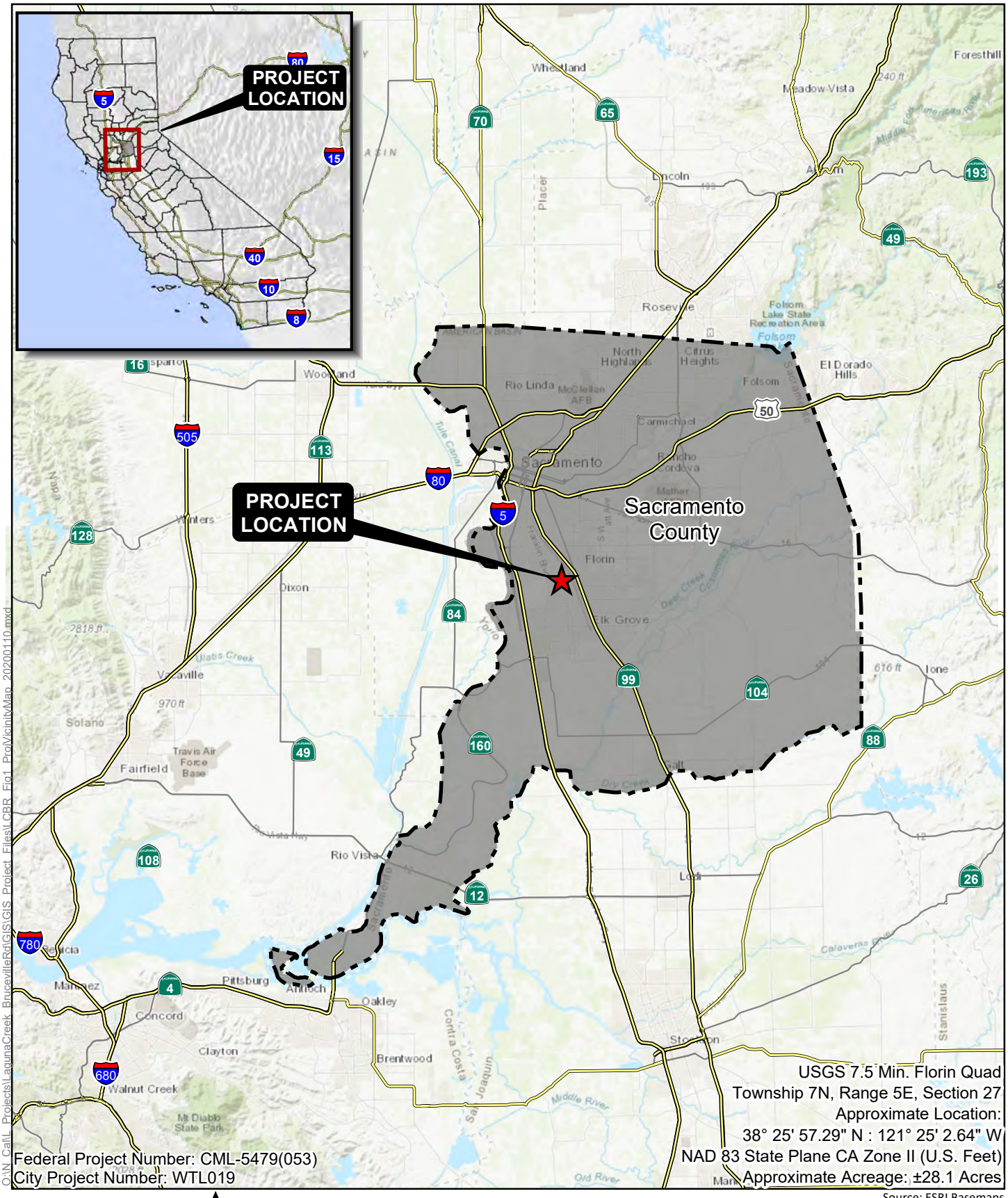
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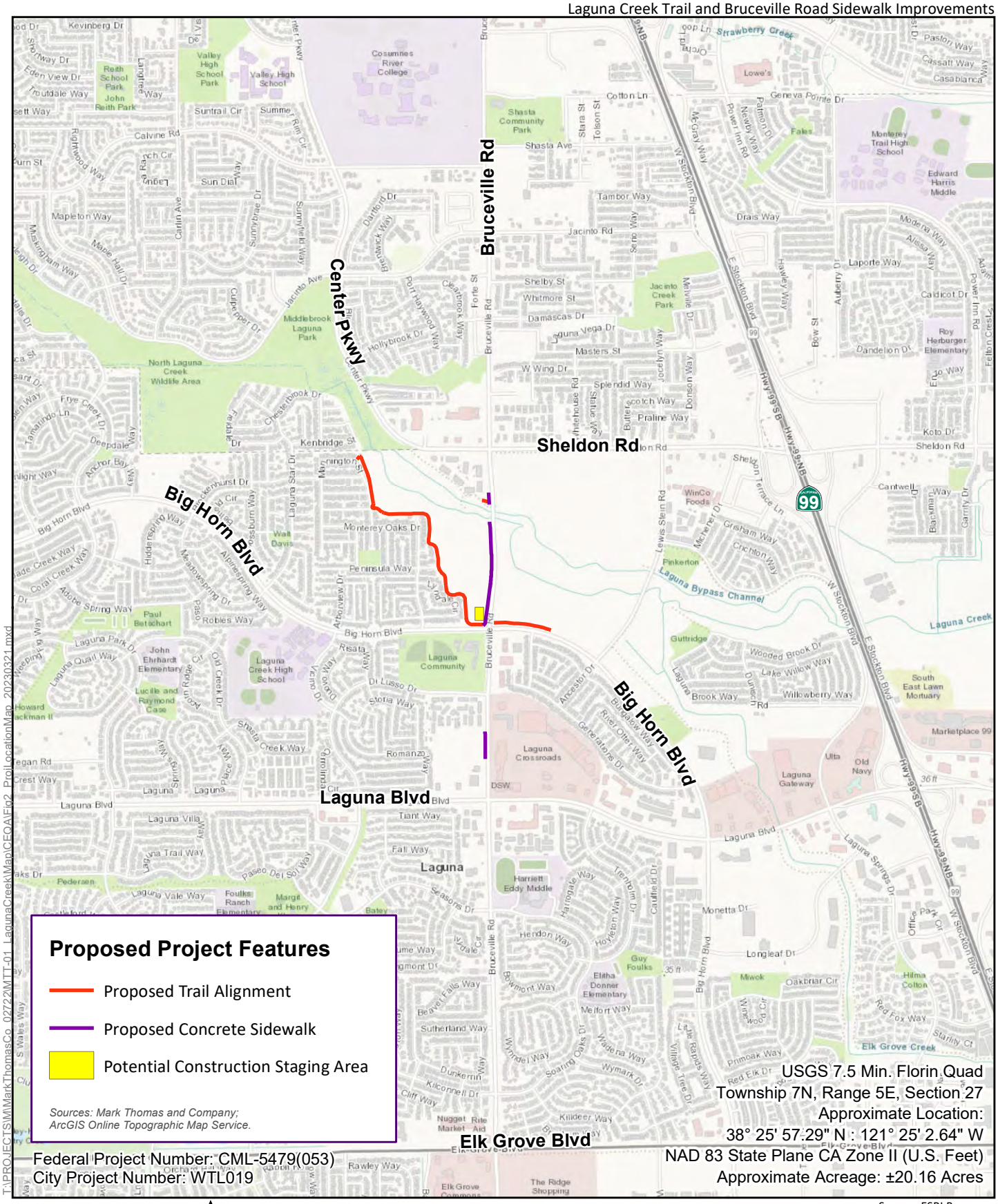
Figures



HELIX Environmental Planning

Project Vicinity Map

Figure 1

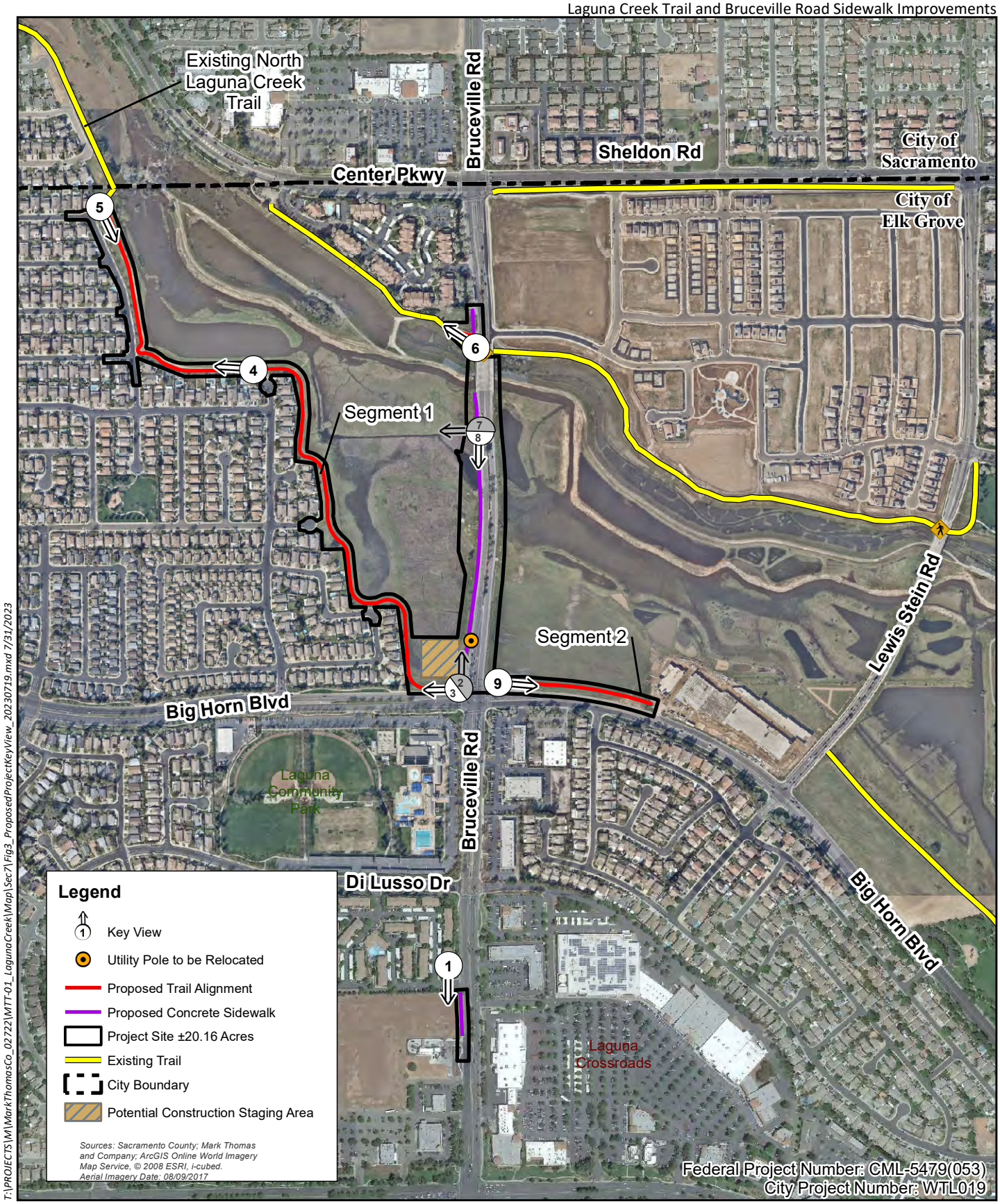


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Project Location Map

Figure 2



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Source: Aerial (NearMap 3/15/2023)

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Proposed Project and Key Views

Figure 3

Attachment 1

Key Views



KEY VIEW 1. Location of proposed sidewalk on Bruceville Road between Di Lusso Drive and Laguna Boulevard, facing south
Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 2. Location of proposed sidewalk on Bruceville Road north of Big Horn Boulevard, facing north
Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 3. Location of proposed trail east of Bruceville Road and north of Big Horn Boulevard, facing west
Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 4. Location of proposed trail near Jessup Court, facing west
Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 5. Description: Location of northern endpoint of proposed trail near Mannington Street, facing southeast

Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 6. Description: End of existing trail and proposed new sidewalk and trail link west of Bruceville Road and south of Center Parkway, facing northwest

Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 7. Description: Location of proposed sidewalk on Bruceville Road north of Big Horn Boulevard, facing south

Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 8. Description: Location of proposed trail east of Bruceville Road, facing west.

Date: September 30, 2021 Photographer: C. Hagele



KEY VIEW 9. Description: Location of proposed trail on north side of Big Horn Boulevard, facing east

Date: September 30, 2021 Photographer: C. Hagele

IS/MND Attachment C

Construction Air Quality and Greenhouse Gas Review

Rincon Consultants, Inc.

Environmental Scientists *Planners* *Engineers*

M E M O R A N D U M

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Riverside:	(951) 782-0061		

Date:	July 20, 2023
To:	Thaleena Bhattal, Acting Branch Chief of Caltrans District 3
Project:	Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project
Federal Project No.	CML-5479 (053)
City Project No.	WTL019
From:	Bill Vosti, Noise and Air Quality Consultant
E-mail:	Thalena.Bhattal@dot.ca.gov
Re:	Construction Air Quality and Greenhouse Gas Memorandum for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

I. Introduction

The City of Elk Grove (City), in cooperation with the California Department of Transportation (CALTRANS), proposes multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Laguna Creek Trail and Bruceville Road Sidewalks Project (Proposed Project) site is located in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, CA, approximately 0.5 mile west of State Route 99, and approximately three miles east of Interstate 5. The site is located within Section 27, Township 7 North, Range 5 East on the USGS Florin, California 7.5-minute quadrangle (38° 25' 13" North, 121° 27' 48" West) (Project Vicinity) (**Figure 1**) (Project Location) (**Figure 2**).

II. Project Purpose and Need/Purpose and Objectives

The purpose and defined objective of the Proposed Project is to construct multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Project is needed to help meet the goals of the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan (2021), as well as the associated Sacramento County Bikeway Master Plan (2011), and SACOG Master Plan (2015). The Proposed Project is needed to provide connecting links that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial

retail and office areas, and transit facilities. Development of the Proposed Project would provide greater accessibility to the existing trail system within the City of Elk Grove and make trails directly accessible to additional homes.

III. Alternatives

Build Alternative/Proposed Project

Project Components

Development of the proposed Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings (Proposed Project) (**Figure 3**). A trail extension is proposed from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalks. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile).

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and sub base as needed. Base material would consist of aggregate base, with a sub base of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Proposed fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

Trail Design

As shown on **Figure 3**, two trail segments would be developed as a 10-foot-wide path with 2-foot-wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed with a 4:1 slope.

Segment 1

Segment 1 would be constructed west of Bruceville Road and north of Big Horn Boulevard. The trail would parallel existing residential development to the west for a length of approximately 0.75 mile trending northward from the existing sidewalk at Big Horn Boulevard and path near Mannington Street (**Figure 3**). The vertical profile would roughly follow the natural topography with excavation being

limited to 2-foot-deep for subbase. Grading limits would be contained within a 36- to 44-foot-wide disturbance corridor for Segment 1.

Segment 2

Segment 2 would be constructed east of Bruceville Road adjacent and parallel to Big Horn Boulevard for an overall length of approximately 0.16 mile (**Figure 3**). It is anticipated that where the Segment 2 alignment terminates, compliance with City-required Conditions of Approval for the Trojan Storage II Project (currently under construction) will result in the construction of a connecting trail segment to Lewis Stein Road. The new trail will use the existing at-grade crossing at Bruceville Road and Big Horn Boulevard to connect to Segment 1. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.

Roads and Sidewalks

Proposed sidewalk improvements would be constructed on the west side of Bruceville Road. Approximately 1,600 feet of sidewalk would be constructed between Big Horn Boulevard and the Bruceville Road Bridge over Laguna Creek (Bridge No. 24C0405) and 180 feet of sidewalk would be constructed from the bridge to existing sidewalk. In addition, the guardrail at the bridge would be replaced and would roughly correspond to the back of sidewalk in this location. New Americans with Disabilities Act (ADA) - compliant ramps would be constructed at Mannington Street and at Mannington Street/Wallbridge Way.

Approximately 230 feet of sidewalk would be constructed at an existing gap in the sidewalk between Di Lusso Drive and Laguna Boulevard. At this location, the roadway surface at Bruceville Road would be extended to match up with the proposed sidewalk.

Culvert Crossings and Hydrology

The Proposed Project would maintain existing grades and drainage patterns to the greatest extent feasible. Side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be located in upland areas and sized based on existing topographic information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures.

Road Crossings and Signage

Trail pavement would be delineated by distinct paint, markings, and signs consistent with City of Elk Grove standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City may also elect to provide wayfinding signs. According to the Bicycle, Pedestrian, and Trails

Master Plan (BPTMP), all bicycle striping and wayfinding signs would also conform to the Caltrans Highway Design Manual chapter 1000 (GHD, Inc. 2021).

Utilities

Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right of way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades.

Construction

Construction of the Proposed Project would commence in summer of 2025 and would take approximately seven to nine months to complete.

No-Build Alternative/No-Project Alternative

Under the No-Build, or "No-Project" Alternative, the trails and sidewalks would not be constructed. Gaps in the City's trail system and sidewalks would remain.

IV. Affected Environment

The Proposed Project is surrounded by a variety of land uses including single family residences, institutional uses such as the Barbara Morse Wackford Community & Aquatic Complex, and commercial land uses, including retail and restaurants.

Local Climate and Meteorology

The Proposed Project is located within the Sacramento Valley Air Basin (Basin), which is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "nonattainment."

The Basin is generally flat and bounded by the North Coast Ranges to the west and the northern Sierra Nevada Mountain Range to the east. Air flows into the Basin through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta from the San Francisco Bay Area. The ranges forming the Basin create a physical barrier to airflow, which leads to the entrapment of locally generated air pollutants when meteorological conditions are unfavorable for transport and dilution, as well as pollution that might otherwise be transported northward on prevailing winds from the Sacramento Metropolitan area. In general, the Basin has a Mediterranean climate and generally has hot, arid, and clear summers, with short, cool, wet, and partly-cloudy winters (U. S. Climate Data 2019). Wind direction varies by month – in the beginning of the year (approximately January – April), wind generally comes from the south between April and June, and then from

November through January, wind normally comes from the north. The average annual precipitation in is 20 inches with an average of 269 sunny days each year (U. S. Climate Data 2019) and the high temperature is around 93 degrees Fahrenheit, while the winter low is around 39 degrees Fahrenheit.

Air Pollutants of Primary Concern

The federal and state Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these Acts, the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for criteria pollutants. Ambient air pollutant concentrations are affected by the rates and distributions of air pollutant emissions, as well as by the climate and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants (such as carbon monoxide and suspended particulate matter) is proximity to major sources. In particular, ambient carbon monoxide levels usually closely follow the spatial and temporal distributions of vehicular traffic. A discussion of primary criteria pollutants is provided below.

Ozone

Ozone (O_3) is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases (ROG). NO_X is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide (CO) is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of carbon monoxide. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. NO_2 absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM_{10} (which measures no more than 10 microns in diameter) and $PM_{2.5}$ (a fine particulate measuring no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer, $PM_{2.5}$ particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Existing Ambient Air Quality

Monitoring of ambient air pollutant concentrations is conducted by CARB and SMAQMD. There are 12 ambient air monitoring stations located throughout Sacramento County. Some pollutants, such as ozone, are measured continuously. Other pollutants are sampled periodically. Particulate matter, for example, is measured over 24 hours every six days. The basic three monitoring objectives are to: 1) provide air pollution data to the general public in a timely manner; 2) support compliance with ambient quality standards and emissions strategy development; and 3) support air pollution research studies. There are a variety of types of monitoring sites to support the monitoring objectives including sites located to determine the highest pollutant concentration, the representative concentrations in areas of high population density, the impact of major pollution emissions sources, the general background concentration levels, the extent of pollutant transport, and impacts on visibility, vegetation, and other welfare-based impacts. The SMAQMD's *2021 Annual Network Plan* provides more information on specific monitoring stations throughout the District (SMAQMD 2021).

CARB and the U.S. EPA establish ambient air quality standards for major pollutants. Standards have been set at levels intended to be protective of public health. California standards are typically more restrictive than federal standards. Local air districts and CARB monitor ambient air quality to ensure that air quality standards are met, and if they are not met, develop strategies to meet the standards. Air quality monitoring stations measure pollutant ground-level concentrations (typically, ten feet above ground level). Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Sacramento County is in nonattainment for the state eight-hour and one-hour ozone standards as well as the state standard for particulates measuring 10 microns in diameter (PM_{10}). Additionally, Sacramento County is in nonattainment for the federal eight-hour ozone standard and the federal standard for particulates less than 2.5 microns in diameter ($PM_{2.5}$). The County is unclassified or in attainment for all other standards (CARB 2023a).

Table 1 indicates the number of days that the O_3 and NO_2 standards has been exceeded in 2019, 2020, and 2021 for the Elk Grove-Bruceville Road monitoring station, which is the closest station to the Project

site (approximately nine miles south) that monitors those pollutants. As shown, the ozone worst hour and eight hour concentrations exceeded federal standards in 2019 through 2021. Concentration data for PM_{10} and $PM_{2.5}$ is available at the Sacramento-T Street monitoring station. As shown in Table 1, the federal PM_{10} standards were exceeded in 2019 and 2020, and the state PM_{10} standards were exceeded in 2019 through 2021. Data for NO_2 was acquired from the Elk Grove-Bruceville Road monitoring station, where no exceedances occurred.

Table 1 Ambient Air Quality Data

Pollutant			
Ozone, ppm - Worst Hour	0.103	0.111	0.105
Number of days of federal exceedances (>0.07 ppm)	2	1	2
Ozone, ppm – Worst 8 Hours	0.077	0.082	0.080
Number of days of State/Federal exceedances (>0.07 ppm)	4	2	5
Nitrogen Dioxide, μg/m^3 - Worst Hour	59.0	21.0	24.0
Number of days of State exceedances (339 μg/m^3)	0	0	0
Number of days of Federal exceedances (188 μg/m^3)	0	0	0
Particulate Matter <10 microns, μg/m^3 - Worst 24 Hours	174.7	298.7	132.6
Estimated number of days of State exceedances (>50 μg/m^3)	25	59	13
Estimated number of days of Federal exceedances (>150 μg/m^3)	1	4	0
Particulate Matter <2.5 microns, μg/m^3 - Worst 24 Hours	32.3	111.0	89.0
Estimated number of days of Federal exceedances (>35 μg/m^3)	0	17	4

Source: California Air Resources Board (CARB). 2023b. "iADAM: Air Quality Data Statistics." https://www.arb.ca.gov/adam (accessed July 6, 2023).

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient to protect public health and welfare with an adequate margin of safety. They are designed to protect that segment of the public most susceptible to respiratory distress. Certain population groups are considered more sensitive to air pollution than others. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Nearby sensitive receptors include single-family residences near the proposed trail alignment and construction staging area and multi-family residences north of proposed sidewalk improvements on Bruceville Road. The closest residential receptors are single-family residences which have property boundaries approximately 15 feet west and south of the proposed alignment. The

property line for the multi-family residences is located approximately 80 feet northwest of the proposed sidewalk improvements.

V. Temporary Construction Impacts

The construction emissions associated with development of the Project were calculated using the Roadway Construction Emission Model (RCEM). Temporary emissions would result from three primary sources: operation of construction vehicles (e.g., scrapers, loaders, and excavators); ground disturbance during clearing and grading, which creates fugitive dust; and the application of asphalt, paint, or other oil-based substances. The extent of daily emissions, particularly reactive organic gases (ROGs) and nitrogen oxide (NO_X) emissions, generated by construction equipment would depend on the quantity of equipment used and the hours of operation for each project. The extent of fugitive dust ($PM_{2.5}$ and PM_{10}) emissions would depend upon the following factors: 1) the amount of disturbed soils; 2) the length of disturbance time; 3) whether excavation is involved; and 4) whether transporting excavated materials offsite is necessary. The amount of ROG emissions generated by paints and oil-based substances such as asphalt depends upon the type and amount of material used.

The estimated duration of construction is seven months based on the applicant's preliminary construction schedule. Construction activities would include site preparation, grading, paving, and architectural coating and would result in temporary air quality impacts that may vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. This analysis anticipates that the Project would require import of 490 cubic yards (CY) of DG to line the shoulders of the trail. Additionally, it was assumed that 2,500 CY of soil would be exported from the Project site, based on applicant provided information.

Construction of the Project would result in temporary emissions of air pollutants due to grading, fumes, and vehicle exhaust. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, and suspended particulate matter.

Caltrans is the NEPA lead agency and the City of Elk Grove is the CEQA lead agency. As applicable, the provisions of *Caltrans Standard Specifications*, Section 14, *Air Pollution Control*, and Section 10, *Dust Control,* require the contractor to comply with all CARB and SMAQMD rules, ordinances, and regulations.

The Project's estimated construction emissions are shown in Table 2. Emissions of nitrogen dioxide (NO_2) were assumed to equal emissions of NO_X, and emissions of sulfur dioxide (SO_2) were assumed to constitute the functional majority of SO_X emissions.

Table 2 Potential Construction Emissions

	Estimated Maximum Daily Emissions (pounds))					
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_2
Maximum Daily Emissions	4.27	42.56	39.27	2.03	1.67	0.09

Note: Full emissions modeling results are included in the attached spreadsheets

As shown in Table 2, Project-generated construction emissions would be minor, assuming use of a water truck.[1]

VI. Permanent Impacts

The Project is exempt from all project-level conformity requirements because it is a bicycle and pedestrian facility. Bicycle and pedestrian facilities are considered exempt projects as outlined in 40 CFR 93.126.

VII. Minimization Measures

Construction impacts related to air quality are short-term in duration and therefore, will not result in adverse or long-term conditions. Nonetheless, implementation of the following measures would reduce any air quality impacts resulting from construction activities:

AQ - 1: Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

AQ - 2: The construction contractor shall comply with Caltrans' Standard Specifications Section 14 of Caltrans' Standard Specifications (2022) and Section 14-9.02 Air Pollution Control. Section 14-9.02 states:

a. Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Government Code § 11017 (Pub Cont Code § 10231).

b. Do not dispose of material by burning

AQ-3: Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust would be followed. The general requirements of Rule 403 are:

a. **301 Limitations:** A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

[1] Based on the RCEM tool, PM_{10} and $PM_{2.5}$ estimates assume 50 percent control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

i. **301.1** Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land.

ii. **301.2** Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts;

iii. **301.3** Other means approved by the Air Pollution Control Officer.

VIII. Summary

No substantially adverse air quality impacts are anticipated from construction because it would be short-term and intermittent and would be conducted in accordance with Caltrans' standard specifications and City requirements.

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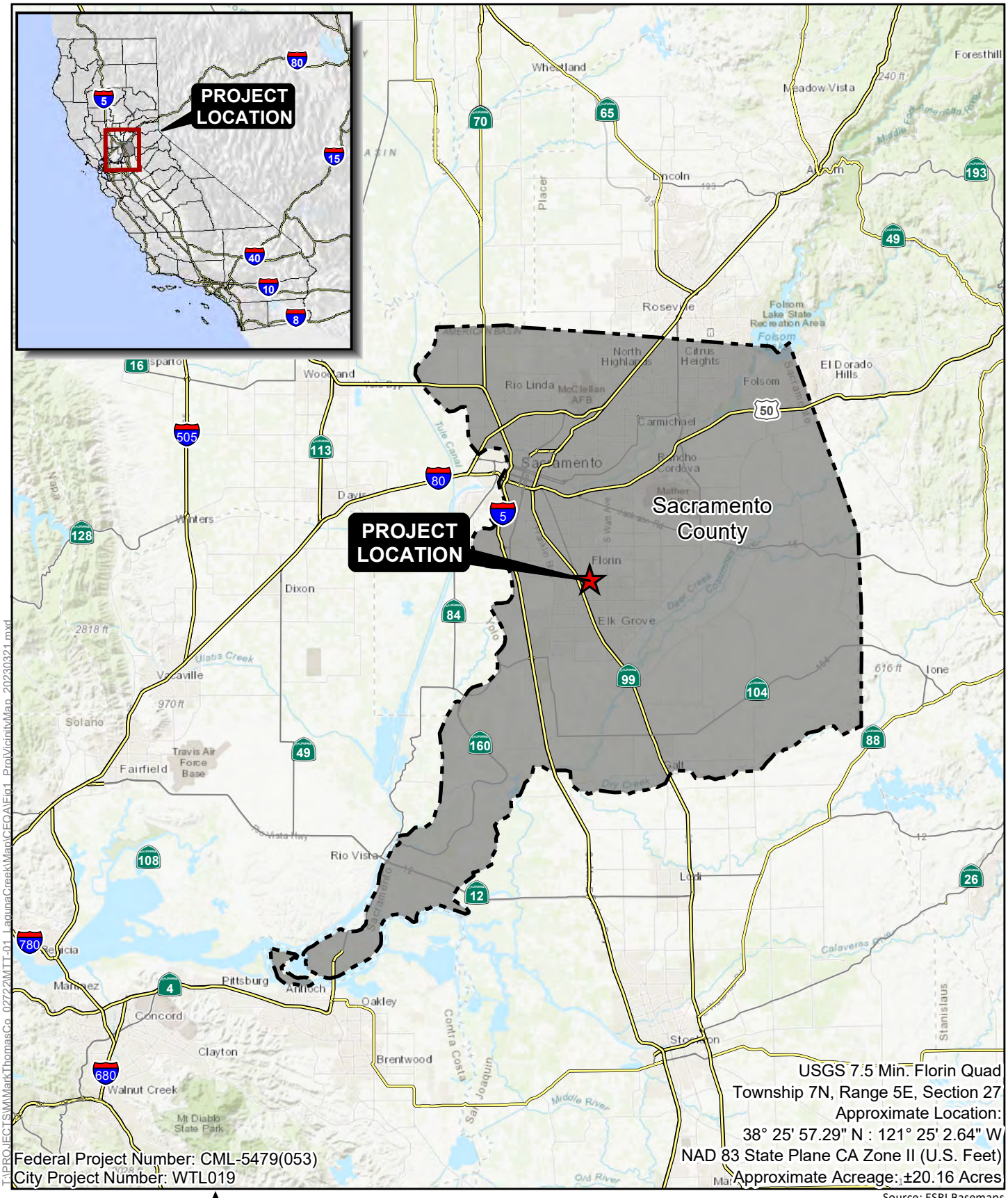
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Attachment 1

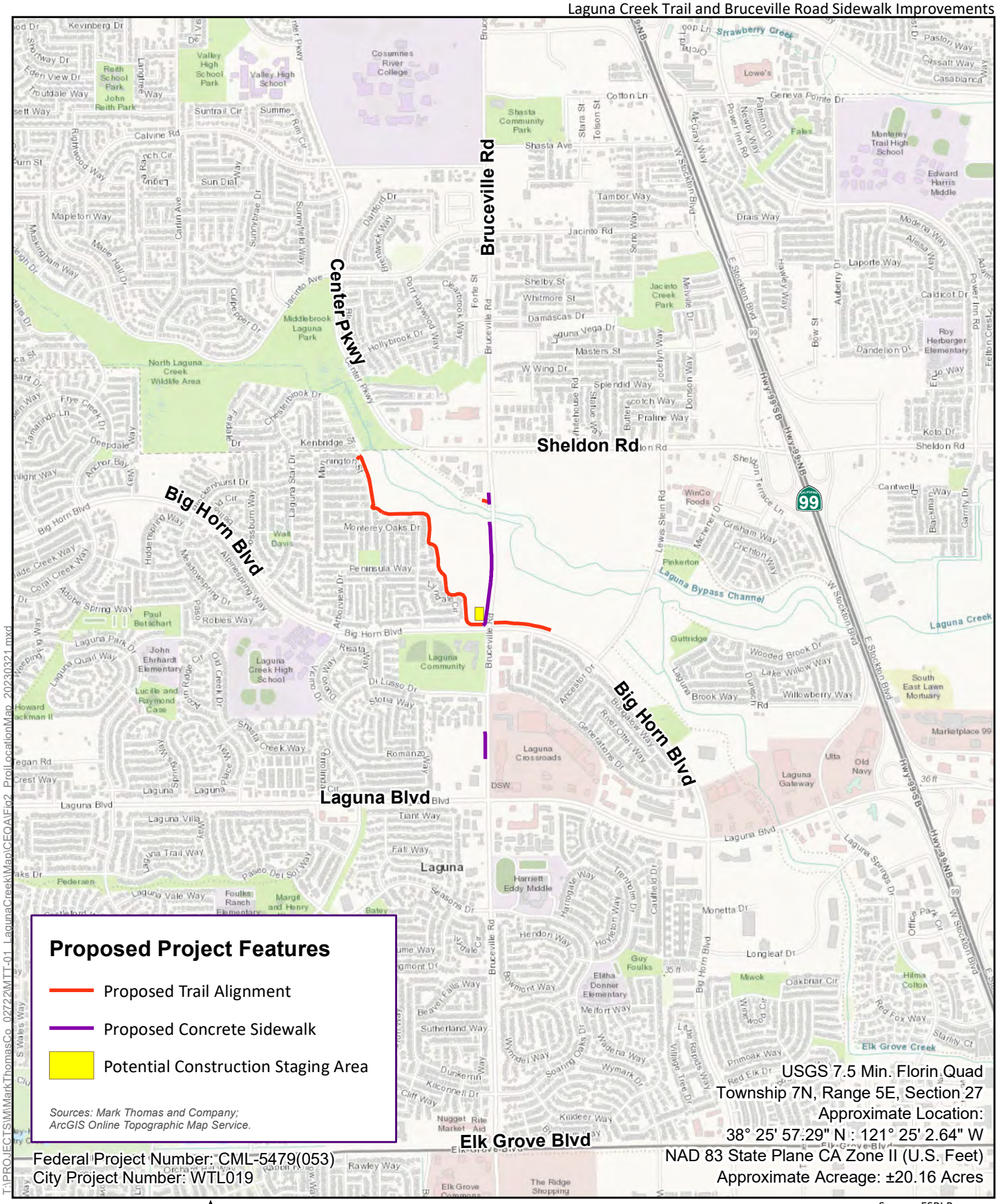
Figures



HELIX Environmental Planning

Project Vicinity Map

Figure 1



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HELIX Environmental Planning

Project Location Map

Figure 2



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Source: Aerial Imagery (Nearmap 3/15/2023)

HELIX Environmental Planning

Proposed Project

Figure 3

Attachment 2

Model Outputs

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Laguna Creek Trail and Bruceville Road Sidewalk Improvements Proje				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Pounds)	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**SOx (lbs/day)**	**CO2 (lbs/day)**	**CH4 (lbs/day)**	**N2O (lbs/day)**	**CO2e (lbs/day)**
Grubbing/Land Clearing	0.98	7.91	9.20	0.61	0.40	0.21	0.39	0.35	0.04	0.02	2,049.09	0.44	0.07	2,079.52
Grading/Excavation	4.27	39.27	42.56	2.03	1.82	0.21	1.67	1.63	0.04	0.09	8,715.42	2.48	0.13	8,816.70
Drainage/Utilities/Sub-Grade	3.70	34.07	35.75	1.74	1.53	0.21	1.44	1.40	0.04	0.08	7,247.73	1.58	0.11	7,321.32
Paving	1.45	18.37	13.50	0.69	0.69	0.00	0.59	0.59	0.00	0.03	3,270.47	0.75	0.09	3,317.39
Maximum (pounds/day)	4.27	39.27	42.56	2.03	1.82	0.21	1.67	1.63	0.04	0.09	8,715.42	2.48	0.13	8,816.70
Total (tons/construction project)	0.13	1.32	1.29	0.07	0.06	0.01	0.05	0.05	0.00	0.00	278.58	0.07	0.01	282.04

Notes:

Project Start Year ->	2025
Project Length (months) ->	6
Total Project Area (acres) ->	3
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	19	0	36	0	360	40
Grading/Excavation	19	0	36	0	880	40
Drainage/Utilities/Sub-Grade	19	0	36	0	760	40
Paving	19	11	36	30	600	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Laguna Creek Trail and Bruceville Road Sidewalk Improvements Proje				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	**ROG (tons/phase)**	**CO (tons/phase)**	**NOx (tons/phase)**	**PM10 (tons/phase)**	**PM10 (tons/phase)**	**PM10 (tons/phase)**	**PM2.5 (tons/phase)**	**PM2.5 (tons/phase)**	**PM2.5 (tons/phase)**	**SOx (tons/phase)**	**CO2 (tons/phase)**	**CH4 (tons/phase)**	**N2O (tons/phase)**	**CO2e (MT/phase)**
Grubbing/Land Clearing	0.02	0.17	0.20	0.01	0.01	0.00	0.01	0.01	0.00	0.00	43.73	0.01	0.00	40.26
Grading/Excavation	0.04	0.41	0.44	0.02	0.02	0.00	0.02	0.02	0.00	0.00	90.12	0.03	0.00	82.70
Drainage/Utilities/Sub-Grade	0.04	0.35	0.37	0.02	0.02	0.00	0.01	0.01	0.00	0.00	74.94	0.02	0.00	68.68
Paving	0.03	0.39	0.29	0.01	0.01	0.00	0.01	0.01	0.00	0.00	69.79	0.02	0.00	64.22
Maximum (tons/phase)	0.04	0.41	0.44	0.02	0.02	0.00	0.02	0.02	0.00	0.00	90.12	0.03	0.00	82.70
Total (tons/construction project)	0.13	1.32	1.29	0.07	0.06	0.01	0.05	0.05	0.00	0.00	278.58	0.07	0.01	255.86

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

IS/MND Attachment D

Natural Environment Study

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Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project



Natural Environment Study

District 03 – SAC – Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

Federal Aid No. CML-5479(053)

City of Elk Grove Project No. WTL019

November 2023

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

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Natural Environment Study

Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

Federal Aid No. CML-5479(053)
City of Elk Grove Project No. WTL019
November 2023

STATE OF CALIFORNIA
Department of Transportation, District 3
Sacramento County, California
and
City of Elk Grove

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ACRONYMS LIST

A	Absent
ADA	American Disabilities Act
BMPs	Best Management Practices
BPTMP	City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan
BSA	Biological Survey Area
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDFW	California Department and Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	California Federal Register
City	City of Elk Grove
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
County	Sacramento County
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBH	Diameter at Breast Height
DG	Decomposed Granite
Eagle Act	Bald and Golden Eagle Protection Act
EFH	Essential Fish Habitat
EO	Executive Order
ESAs	Environmentally Sensitive Areas
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GC	General Commercial
GPS	Global Positioning System
HELIX	HELIX Environmental Planning, Inc.
HMA	Hot Mixed Asphalt
HP	Habitat Present
IPaC	Information for Planning and Conservation
ITP	Incidental Take Permit

MBTA	Migratory Bird Treaty Act
MP	Industrial-Office Park
MSL	Mean Sea Level
MM	Mitigation Measure
MUTCD	Manual of Uniform Traffic Control Devices
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NPDES	Non-Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWPR	Navigable Waters Protection Rule
O	Open Space
OHWM	Ordinary High-Water Mark
P	Present
PJD	Preliminary Jurisdictional Determination
Procedures	Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
Project	Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project
RD-30	High Density Residential–Thirty Dwelling Units Per Acre
RMU	Residential Mixed Use
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SACOG Master Plan	Sacramento Area Council of Governments Master Plan
SCBMP	Sacramento County Bikeway Master Plan
SNC	Sensitive Natural Community
SWRCB	State Water Resources Control Board
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQC	Water Quality Certification

SUMMARY

The City of Elk Grove (City), in cooperation with the California Department of Transportation (Caltrans), proposes multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road (Project). The Project site is located in the area of Bruceville Road and Big Horn Boulevard in Elk Grove, California, approximately 0.5 mile west of State Route 99, and approximately 3.0 miles east of Interstate 5. The site is located within Section 27, Township 7 North, Range 5 East of the U.S. Geological Survey (USGS) *Florin*, *California* 7.5-minute quadrangle (38° 25' 57.29" North, 121° 25' 2.64" West). The proposed Project is needed to close the gap between the existing trails and provide a connecting link that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities.

The boundary of the 20.16-acre Biological Study Area (BSA) encompasses the Project's limits of disturbance and consists of undeveloped land that is bordered by residential neighborhoods and moderate to heavily trafficked roads. Minor to moderate disturbance was observed within the BSA including the establishment of invasive and/or noxious weeds, disturbed land from continuous pedestrian use, and trash. California annual grassland (annual grassland) is the only natural upland biological community that occurs within the BSA. Six types of aquatic features occur within the BSA: depressional seasonal wetland, vernal pool, riverine seasonal marsh, riverine perennial marsh, channel, and creek.

Special-Status Species

Special-Status Plant Species

Twenty-three special-status plants have the potential to occur within the aquatic features that are present within the BSA. With the implementation of one or more of the avoidance measures discussed within this document, impacts of the Project to special-status plants can be avoided or minimized.

Special-Status Wildlife Species

Eleven special-status wildlife species have the potential to occur within the BSA as well as migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Codes. With the implementation of one or more of the avoidance measures discussed within this document, the impacts of the Project to special-status wildlife species can be avoided or minimized.

The federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp have the potential to occur within the vernal pools and depressional seasonal wetlands within the BSA. The federally and state listed giant garter snake has the potential to occur in Laguna Creek and Elk Grove Creek adjacent to the BSA.

There is no critical habitat proposed or present within the BSA for federally listed species, including federally listed fish species or Essential Fish Habitat (EFH).

The proposed Project will have No Effect on the following federally listed species due to a lack of suitable habitat in the BSA, or the BSA being outside of the current known range of the species: Sacramento Orcutt grass (*Orcuttia viscida*), slender Orcutt grass (*Orcuttia tenuis*), monarch butterfly (*Danaus plexippus*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Central

Valley steelhead (*Oncorhynchus mykiss irideus*), Chinook salmon – Central Valley (CV) spring run and Sacramento River (SR) winter run (*Oncorhynchus tshawytscha*), delta smelt (*Hypomesus transpacificus*), green sturgeon pop. 1 (*Acipenser medirostris*), longfin smelt (*Spirinchus thaleichthys*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), least Bell's vireo (*Vireo bellii pusillus),* and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*).

As currently designed, permanent direct impacts to habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp will occur through ground disturbance of the soil within vernal pool and depressional seasonal wetland habitats, removal/fill of the vernal pools and depressional seasonal wetlands through trail construction, or altering hydrology of the vernal pools or depressional seasonal wetlands through trail construction thereby resulting in loss of potentially occupied habitat or individuals. Indirect impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp could result from disturbance caused by the movement of equipment, workers, and trail-users, silt or other debris entering the pools/wetlands during construction, or the introduction of noxious/invasive weeds into the vernal pools or depressional seasonal wetlands that reduce the suitability of the pools to support vernal pool invertebrates.

The proposed Project may affect and is likely to adversely affect vernal pool fairy shrimp and vernal pool tadpole shrimp.

Suitable giant garter snake aquatic habitat is absent from the BSA but occurs directly adjacent to the BSA. As currently designed, the Project has the potential to directly impact giant garter snake individuals through direct impacts within a portion of designated giant garter snake conservation area identified under the 1996 Biological Opinion issued by the USFWS for the Lower Laguna Flood Control Project (Service File 1-1-96-F-51). Permanent direct impacts could occur through ground disturbance of the soil and trail construction. Indirect impacts could occur to giant garter snake and result from disturbance caused by the movement of equipment, workers, and trail-users, or silt or other debris entering the site during construction.

The proposed Project may affect and is likely to adversely affect giant garter snake.

Suitable western pond turtle aquatic habitat is absent from the BSA but occurs directly adjacent to the BSA. As currently designed, the Project has the potential to directly impact western pond turtle individuals through direct impacts within potential upland habitat. Permanent direct impacts could occur through ground disturbance of the soil and trail construction. Indirect impacts could occur to western pond turtle and result from disturbance caused by the movement of equipment, workers, and trail-users, or silt or other debris entering the site during construction.

The proposed Project may affect and is likely to adversely affect western pond turtle.

The following State Species of Special Concern have the potential to occur within the BSA: yellow-headed blackbird and protected nesting migratory birds. No take of State-listed species is anticipated for the Project with implementation of minimization and avoidance measures identified in this Natural Environment Study (NES). Because no take of State-listed species is anticipated, no State Incidental Take Permit (ITP) will be required for the Project.

The Project has the potential to impact jurisdictional waters of the United States (U.S.). Should the Project result in impacts to any waters of the U.S., the Applicant is required to obtain authorization under a Clean Water Act (CWA) Section 404 permit for any impacts to wetlands or other waters subject

to U.S. Army Corps of Engineers (USACE) jurisdiction. Impacts to USACE jurisdictional waters would also require a 401 Water Quality Certification (WQC) from the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA. In addition, impacts to aquatic resources may also require a Streambed Alteration Agreement under California Fish and Game Code Section 1602. The permits will include terms and conditions to minimize impacts and to fully mitigate for any permanent impacts to wetlands and other waters. A discussion of additional measures to minimize and avoid impacts to aquatic features is also included within this NES.

Several invasive plant species and noxious weeds are present within the annual grassland habitat within the BSA. Mitigation measures shall be implemented to avoid the spread of invasive plant species and noxious weeds as the result of Project implementation.

Measures to avoid and minimize impacts to biological resources shall be implemented as described in this NES.

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CHAPTER 1: INTRODUCTION

Project Location and Setting

The City, in cooperation with Caltrans, proposes multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The purpose and need of the Project are discussed below. The Project site is located in the area of Bruceville Road and Big Horn Boulevard in the City of Elk Grove, Sacramento County (County), California, approximately 0.5 mile west of State Route 99, and approximately 3.0 miles east of Interstate 5 (**Figure 1**, *Project Vicinity Map*). The site is located within Section 27 of Township 7 North, Range 5 East of the USGS *Florin*, *California* 7.5-minute quadrangle (38° 25' 57.29" North, 121° 25' 2.64" West) (**Figure 2**, *Project Location Map*).

Proposed trail and sidewalk improvements within the BSA would traverse an existing undeveloped area zoned for Open Space (O), High Density Residential–Thirty Dwelling Units Per Acre (RD-30), Industrial-Office Park (MP), Residential Mixed Use (RMU), and General Commercial (GC) (City of Elk Grove 2019). Existing biological communities are discussed in **Chapter 3: Results – Environmental Setting**.

The proposed Project would develop trail improvements through a portion of the Phase 1 Lower Laguna Flood Control Project area (Phase 1 as defined within the 1999 Biological Opinion Amendment; U.S. Department of the Interior 1999). Portions of the Project that are currently covered by Deed Restrictions required for the Lower Laguna Flood Control Project are discussed in **Chapter 2: Study Methods**.

Project Purpose and Need/Purpose and Objectives

The purpose and defined objective of the proposed Project is to construct multiple trail extensions and gap closures of the Laguna Creek Trail and sidewalks along Bruceville Road. The Project is needed to help meet the goals of the *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* (BPTMP) (GHD, Inc. 2021), as well as the associated *Sacramento County Bikeway Master Plan* (SCBMP) (Sacramento County 2011) and *Sacramento Area Council of Governments Master Plan* (SACOG Master Plan) (SACOG 2015). The proposed Project is needed to provide connecting links that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. Development of the proposed Project would provide greater accessibility to the existing trail system within the City and make trails directly accessible to additional homes.

Build Alternative/Proposed Project

Project Components

Development of the proposed Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway), with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings (**Figure 3**, *Proposed Project*). A trail extension is proposed from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalk. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center

Parkway (approximately 0.30 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile).

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and subbase as needed. Base material would consist of aggregate base, with a subbase of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Proposed fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

Trail Design

As shown on **Figure 3**, two trail segments would be developed as a 10-foot-wide path with 2-foot-wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed with a 4:1 slope.

Segment 1

Segment 1 would be constructed west of Bruceville Road and north of Big Horn Boulevard. The trail would parallel existing residential development to the west for a length of approximately 0.75 mile trending northward from the existing sidewalk at Big Horn Boulevard and path near Mannington Street (**Figure 3**). The vertical profile will roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 36- to 44-foot wide disturbance corridor for Segment 1.

Segment 2

Segment 2 would be constructed east of Bruceville Road adjacent and parallel to Big Horn Boulevard for an overall length of approximately 0.16 mile (**Figure 3**). It is anticipated that where the Segment 2 alignment terminates, compliance with City-required Conditions of Approval for the Trojan Storage II Project (currently under construction) will result in the construction of a connecting trail segment to Lewis Stein Road. The new trail would use the existing at-grade crossing at Bruceville Road and Big Horn Boulevard to connect to Segment 1. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.

Roads and Sidewalks

Proposed sidewalk improvements would be constructed on the west side of Bruceville Road.

Approximately 1,600 ft of sidewalk would be constructed between Big Horn Boulevard and the Bruceville Road bridge over Laguna Creek (Bridge No. 24C0405) and 180 feet of sidewalk would be constructed from the bridge to the existing sidewalk. In addition, the guardrail at the bridge would be replaced and would roughly correspond to the back of sidewalk in this location. New Americans with Disabilities Act (ADA) compliant ramps would be constructed at Mannington Street and at Mannington Street/Wallbridge Way.

Approximately 230 feet of sidewalk would be constructed at an existing gap in the sidewalk between Di Lusso Drive and Laguna Boulevard. At this location, the roadway surface at Bruceville Road would be extended to match up with the proposed sidewalk.

Culvert Crossings and Hydrology

The proposed Project would maintain existing grades and drainage patterns to the greatest extent feasible and side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be located in upland areas and sized based on existing topographic information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures.

Road Crossings and Signage

Trail pavement would be delineated by distinct paint, markings, and signs consistent with City standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City may also elect to provide wayfinding signs. According to the BPTMP all bicycle striping and wayfinding signs shall also conform to the Caltrans Highway Design Manual, Chapter 1000 (GHD, Inc. 2021).

Utilities

Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right of way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades.

Construction

Staging

As shown on **Figure 3**, one potential construction staging area is proposed within the Project site. The potential staging area is identified northwest of the Bruceville Road at Big Horn Boulevard intersection.

Schedule

Construction of the proposed Project would commence in Summer of 2025 and would take approximately seven to nine months to complete.

Other Project Features (Biological Resources-Specific)

Prior to construction, the construction contractor will install high-visibility construction exclusion fencing along the limits of disturbance adjacent to Environmentally Sensitive Areas (ESAs) (e.g., aquatic resources, special-status plants, and active bird nests) (see **Figure 4**, *Biological Communities*). The project proponent will ensure that the final construction plans show the locations where ESA fencing will be installed. The plans also will define the ESA fencing installation procedure. At the discretion of the project proponent, the project proponent or the construction contractor will ensure that the ESA fencing is maintained throughout the duration of the construction period. If the ESA fencing is removed, damaged, or otherwise compromised during the construction period, construction activities will cease until the fencing is repaired or replaced. The Project's special provisions package will provide clear

language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. Preliminary ESA locations to avoid or minimize effects to aquatic features adjacent to the trail alignment are shown on **Figure 5,** *Proposed Project and Impacts to Biological Communities*.

No-Build Alternative/ No Project Alternative

Under the No-Build, or "No-Project" Alternative, the trails and sidewalks would not be constructed. Gaps in the City's trail system and sidewalks would remain.

CHAPTER 2: STUDY METHODS

The following sections describe federal, State, and local environmental laws and policies as well as the studies required for this Project that are relevant to this NES.

Regulatory Requirements

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the CWA. "Discharges of fill material" are defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes; and subaqueous utility lines [33 C.F.R. §328.2(f)].

Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Section 404 of the CWA requires approval prior to discharging dredged or fill material into the waters of the U.S. Typical activities requiring Section 404 permits are:

- Depositing of fill or dredged material in waters of the U.S. or adjacent wetlands;
- Site development fill for residential, commercial, or recreational developments;
- Construction of revetments, groins, breakwaters, levees, dams, dikes, and weirs; and
- Placement of riprap and road fills.

Rivers and Harbors Act of 1899

Section 10 of the Rivers and Harbors Act of 1899 requires approval prior to the accomplishment of any work in or over navigable waters of the U.S., or which affects the course, location, condition, or capacity of such waters. Typical activities requiring Section 10 permits are:

- Construction of piers, wharves, bulkheads, dolphins, marinas, ramps, floats intake structures, and cable or pipeline crossings; and
- Dredging and excavation.

Any person, firm, or agency (including Federal, state, and local government agencies) planning to work in navigable waters of the U.S., or dump or place dredged or fill material in waters of the U.S., must first obtain a permit from the USACE. Permits, licenses, variances, or similar authorization may also be required by other Federal, state, and local statutes.

Waters of the U.S.

The final "Revised Definition of 'Water of the United States'" rule was published in the Federal Register on January 18, 2023, and took effect on March 20, 2023.

On May 25, 2023, the United States Supreme Court issued a decision in the case of *Sackett* v. *Environmental Protection Agency* (Supreme Court of the United States, 2023) which will ultimately influence how federal waters are defined. The May 25, 2023, Supreme Court decision in *Sackett* v. *Environmental Protection Agency* determined that "the CWA extends to only those 'wetlands with a continuous surface connection to bodies that are "waters of the United States" in their own right,' so that they are 'indistinguishable' from those waters." USACE and U.S. Environmental Protection Agency (USEPA) are currently developing a rule to amend the Final Rule published in January 2023 consistent with the U.S. Supreme Court ruling in the Sackett case and intend to issue a final rule by September 1, 2023.

Unless considered an exempt activity under Section 404(f) of the Federal CWA, any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the CWA (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Activities exempted under Section 404(f) are not exempted within navigable waters under Section 10.

The CWA (33 USC 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. obtain a state certification that the discharge complies with other provisions of CWA. The RWQCB administers the certification program in California and may require State WQC before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there were no practicable alternative that would have less adverse impacts.

Waters of the State

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 WQC. The State of California WQC Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Federal CWA. Although the CWA is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a

federal license or permit does not violate California's water quality standards (i.e., that they do not violate the Porter-Cologne Water Quality Control Act and the State Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within Waters of the U.S., and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of Administrative Law approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 *et seq*.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by several State and federal laws. The federal MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior.

The Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) prohibits the taking or possession of and commerce in bald and golden eagles with limited exceptions. Under the Eagle Act, it is a violation to "*take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof.*" Take is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. Disturb is further defined in 50 CFR Part 22.3 as "*to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best*

scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Executive Order 11990 – Protection of Wetlands

On May 24, 1977, President Jimmy Carter signed Executive Order (EO) 11990 establishing a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. The U. S. Department of Transportation promulgated Order 5660.1A in 1978 to comply with this direction. On federally funded projects, impacts on wetlands must be identified. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. Under this EO, this must be documented in a specific Wetlands Only Practicable Alternative Finding.

Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the U.S. The order defines invasive species as "a*ny species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.*" Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the Invasive Species Council of California, to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project. Under this EO, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the U.S., by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Federal Endangered Species Act

The U.S. Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR §17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR §17.3). Actions that result in take can result in civil or criminal penalties.

Projects that may affect federally threatened, endangered, or proposed listed species and proposed or designated critical habitat are required to facilitate consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 (a)(2) of the Federal Endangered Species Act (16 U.S. C 1536(c)).

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW), formally California Department of Fish and Game (CDFG), when preparing California Environmental Quality Act (CEQA) documents to ensure that the state lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code §2081).

California Department of Fish & Wildlife Streambed Alteration Agreement

The CDFW has jurisdiction under Section 1600 *et seq*. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "*substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds…except when the department has been notified pursuant to Section 1601.*" Additionally, CDFW may assert jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four (4) inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

California Department of Fish and Game Codes

Fully protected fish species are protected under Section 5515 of the Fish and Game Codes; fully protected amphibian and reptile species are protected under Section 5050; fully protected bird species are protected under Section 3511; and fully protected mammal species are protected under Section 4700. The California Fish and Game Code defines take as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" Except for take related to scientific research, all take of fully protected species is prohibited.

Section 3503 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Sections 2062 and 2067 define endangered and threatened species.

California Department of Fish and Wildlife Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on

a list of "Species of Special Concern," developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened.

California Native Plant Society

The California Native Plant Society (CNPS) maintains a rank of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023). The CNPS rankings categorize plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

All plants appearing on CNPS Rank 1 or 2 are considered to meet CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA. Furthermore, the CNPS Rare Plant Rankings include levels of threat for each species. These threat ranks include the following:

- 0.1 - Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- 0.2 - Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat); and
- 0.3 - Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

Threat ranks do not designate a change of environmental protections, so that each species (i.e., California Rare Plant Rank (CRPR) 1B.1, 1B.2, 1B.3, etc.), be fully considered during preparation of environmental documents under CEQA.

City of Elk Grove Tree Ordinance

The City has adopted regulations for the protection and preservation of existing trees within the City. These regulations were first adopted by Sacramento County prior to the incorporation of the City in 1981; in 2011 the City provided a comprehensive update to these regulations (City of Elk Grove 2011). Trees under this ordinance include:

- Landmark trees: “a tree that has been determined and designated, by resolution of the City Council, to be of high value to the community because of its species, size, age, form, historical significance, or some other professional criterion”;

- Trees of local importance: Coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), oracle oak (*Quercus* X *moreha*), California sycamore (*Platanus racemosa*), and California black walnut (*Juglans hindsii*);

- Secured trees: “A tree of local importance retained during the course of review and approval of a discretionary development project, inclusive of the environmental review process as required by CEQA; and those trees planted as a result of a discretionary development project to satisfy a mitigation requirement under this chapter, an approved or certified CEQA document, or other regulation”; and

- Trees within the right-of-way or on City property that are qualifying landmark trees, secured trees, and/or trees of local importance.

City of Elk Grove Swainson’s Hawk Code

In 2003, the City established and adopted Chapter 16.130 (Swainson's Hawk Impact Mitigation Fees [City of Elk Grove 2023]) of the Elk Grove Municipal Code, which establishes mitigation policies tailored for projects in Elk Grove that have been determined through the CEQA process to result in a "potential significant impact" on Swainson's hawk foraging habitat. Chapter 16.130, often referred as the "Swainson's Hawk Code," serves as a conservation strategy that is achieved through the selection of appropriate replacement lands and through management of suitable habitat value on those lands in perpetuity. To mitigate for the loss of foraging habitat in the City, the Swainson's Hawk Code allows a project applicant to provide mitigation by one or a combination of the following options:

1. Provide direct land preservation to the City by fee title or conservation easement on a per acre basis (one-to one mitigation ratio), including an endowment for easement monitoring. Interests in mitigation lands are to be held in trust by an entity acceptable to the City and/or the City in perpetuity.

2. Pay Swainson's Hawk impact mitigation fee on a per acre basis of habitat impacted. The current fee is listed in the City’s Development Related Fee Booklet, which the City utilizes the fees collected to mitigate the project's impacts by acquiring land in fee title and/or conservation easements on suitable Swainson's hawk foraging habitat. Swainson's Hawk payment of a mitigation fee is limited to projects less than 40 acres.

3. Purchase mitigation credits at an accredited mitigation bank that is acceptable to the City and CDFW.

4. Purchase credits from a property owner with eligible credits for projects in Elk Grove that is acceptable to the City and CDFW.

5. Provide other instruments to preserve suitable habitat as determined by the CDFW.

Lower Laguna Flood Control Project

The USACE issued authorization under Section 404 of the Federal CWA (Regulatory ID Number 199500313) June 5, 1998 for the Lower Laguna Flood Control Project. The Lower Laguna Flood Control Project proposed to provide flood protection to neighboring upland areas by constructing a bypass channel, installing twin 72-inch pipes with outfalls, and an extension of a 60-inch pipeline across Laguna Creek, as well as the installation of a 60-inch pipe with outfall from the water quality ponds on the Park Meadows South site across Laguna Creek and discharging into the bypass channel (Permit). The Permit authorized the fill of 12.39 acres of waters of the U.S. Proposed mitigation included the creation of 23.75 acres of waters onsite plus offsite vernal pool mitigation as required by the October 29, 1996 Biological Opinion (USFWS File 1-1-96-F-51) issued by the USFWS.

The 1996 Biological Opinion included conservation measures addressing giant garter snake, as well as vernal pool tadpole shrimp and vernal pool fairy shrimp. Measures relevant to giant garter snake, in part, included preservation of onsite perennial marsh and creation of additional marsh acreage within the greater Project area. Conservation measures addressing vernal pool tadpole shrimp and vernal pool fairy shrimp included the payment of in-lieu fees to purchase 1.46 vernal pool preservation credits for effects to 0.73 acre of vernal pools and the corresponding loss of habitat for vernal pool invertebrates.

The USACE reinitiated Section 7 Consultation with the USFWS on May 15, 1998 in order to meet four objectives: a) to allow for restoring vernal pools concurrently with the phasing of the project; (b) to extend the deadlines for placing preservation areas under conservation easements; (c).to address the reduction in project-related wetland impacts; and (d) to remove the requirement of placing rock refugia along Laguna Creek for giant garter snakes.

As of March 26, 1999, Sacramento County had acquired Fee Title to the areas within the Phase 1 portion of the Laguna Creek corridor, except the Low property areas. The grant deeds for these properties, except Sheldon Farms, include deed restrictions which require the County to “Conserve, protect, restore, and enhance the Protected Property in a manner consistent with the Biological Opinion and Department of Army Permit No. 199500313.” The USFWS is acknowledged as a third-party beneficiary, with access and enforcement authority over the terms of the conservation measures listed in the grant deed. The deed restrictions protecting biological resources on the Sheldon Farms property were expected to be in place within 60 days of the issuance of the April 21, 1999 Biological Opinion Amendment. The County proposed to require easement recordation, or another form of USFWS-approved instrument that provides the same level of protection for open space, as a condition of any discretionary action to be approved by the County for the Low property.

Studies Required

Literature Search

Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this assessment are listed in **Chapter 6: References**. The following site-specific information was reviewed:

- CDFW. 2023. California Natural Diversity Data Base (CNDDB); For: *Florin, Sacramento West, Sacramento East, Carmichael, Elk Grove, Galt, Bruceville, Courtland,* and *Clarksburg* USGS 7.5-minute series quadrangles, Sacramento, CA. [Accessed 7/13/2023] (**Appendix A**);

- CNPS. 2023. *Inventory of Rare and Endangered Pla*nts (online edition, v8-02) For: *Florin, Sacramento West, Sacramento East, Carmichael, Elk Grove, Galt, Bruceville, Courtland, and Clarksburg* USGS quadrangles. [Accessed 7/13/2023] (**Appendix B**);

- USFWS. 2023. *Information for Planning and Conservation* (IPaC) *Trust Resource Report: Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project, Sacramento County, CA*. [Accessed 7/13/2023] (**Appendix C**); and

- National Oceanic Atmospheric Administration (NOAA) Fisheries. 2023. *West Coast Region, Species Directory, for ESA Threatened & Endangered Marine Species*. Available online at: https://www.fisheries.noaa.gov/species-directory/threatened-endangered. [Accessed 7/28/23] (**Appendix D**).

Biological Study Area

The boundary of the BSA encompasses the Project limits of disturbance and appropriate survey buffers. The BSA is located in undeveloped land, adjacent to residential neighborhoods, community parks, and small business shopping centers. Bruceville Road, Big Horn Boulevard, and Sheldon Road border the BSA (**Figure 3**).

Survey Methods

Biological surveys were conducted to characterize general biological conditions and to determine the potential for sensitive biological resources to occur within the BSA. The BSA was surveyed on foot, with binoculars and sub-meter Global Positioning System (GPS) equipment used as necessary, and to delineate the extent of aquatic resources within the BSA. Habitat types within the BSA were characterized and assessed for their potential to support special-status plant and wildlife species that may occur in the region. Botanical inventories were conducted in accordance with CDFW's 2009 plant survey protocols. Plant species observed within the BSA that are designated as invasive by the California Invasive Plant Council (Cal-IPC; Cal-IPC 2023), or as noxious weeds by the California Department of Food and Agriculture (CDFA) were noted during the biological surveys and are included in **Appendix E**. All wildlife species observed within the BSA are also included in **Appendix E**.

The aquatic resource delineation consisted of mapping aquatic resources within the BSA in accordance with USACE standards. Soil, vegetation, and hydrological data were recorded. The results of the aquatic resources delineation are summarized herein and are discussed in detail under a separate cover (HELIX 2020). The aquatic resources delineation was submitted to the USACE with a request for a Preliminary Jurisdictional Determination (PJD) on February 20, 2020. The USACE issued a PJD for the Project on May 12, 2020 concurring with aquatic resources mapped by HELIX (2020) (**Appendix F**). Following completion of the aquatic resources delineation, the BSA was revised to either avoid aquatic features completely or include entire features that may potentially be impacted. No additional aquatic resources were observed in the revised alignment during follow up biological field surveys.

Personnel and Survey Dates

HELIX Environmental Planning, Inc. (HELIX) senior botanist, Cristian Singer, and biologist, Christine Heckler, conducted biological surveys, focused plant surveys, and an aquatic resources delineation within the Project area on April 11, and April 23, 2019. On September 10, 2019, Ms. Heckler conducted

additional biological surveys in portions of the Project area that were expanded following a review of the initial Project area. On July 1, 2021, Ms. Heckler conducted a biological survey in the revised trail alignment north of Big Horn Boulevard and a second biological survey was conducted in the revised trail alignment east of Lewis Stein Road on September 2, 2021. Following additional trail alignment revisions in 2023, Ms. Heckler conducted a subsequent biological survey within the revised trail alignment on March 15, 2023. Upon access approval, Ms. Heckler also surveyed a portion of private property adjacent to the Segment 1 trail alignment.

Mr. Singer has over 20 years of experience working as a botanist, with an emphasis in wetland delineations and special-status plant surveys. Ms. Heckler has over nine years of experience working as a biologist in California, with an emphasis on special-status wildlife surveys and ecology.

Agency Coordination and Professional Contacts

The USFWS, CDFW, and CNPS databases were all queried through their online portals prior to conducting fieldwork and again on July 13, 2023, as detailed above.

A July 6, 2022 virtual meeting was attended by Caltrans Associate Environmental Planner Brooks Taylor and Caltrans Acting Branch Chief, Thaleena Bhattal, and USFWS Sacramento Valley Division Biologist Emma Bickerstaff and USFWS Sacramento Valley Division Senior Biologist Ian Perkins-Taylor, as well as HELIX regulatory specialists, Kyrsten Shields and Candice Guider-Heitmann and Zach Liptak, Senior Environmental Planner attending on behalf of the City to discuss USFWS comments on the Section 7 Biological Assessment, prior to initiation of formal consultation.

At the request of the USFWS, an onsite meeting with Caltrans, the USFWS, the City, and HELIX occurred on March 15, 2023, to discuss overall project details and answer questions.

On June 2, 2023, Zach Liptak, Senior Environmental Planner on behalf of the City transmitted a letter to USFWS Sacramento Valley Division Biologist Emma Bickerstaff and USFWS Sacramento Valley Division Senior Biologist Ian Perkins-Taylor, and USFWS Sacramento Valley Division Supervisor Megan Cook summarizing proposed trail improvements within and adjacent to recorded deed restricted parcels (**Appendix G**).

On September 27, 2023, the USFWS responded to the June 2, 2023, letter referenced above. The USFWS acknowledged the proposed trail alignment and construction would encroach into the deed restricted parcels but would only be a temporary and small-scale impact to upland habitat. In addition, the USFWS stated that “the proposed new post and cable fencing and interpretive signage will aid in preventing pedestrian disturbance and associated erosion. It appears as though the conservation values of these areas will still be retained upon completion of construction for the following reasons: the small scale of proposed encroachment within areas of already disturbed upland snake habitat in the deed restricted parcels, the proposed trail is not expected to restrict movement of small mammals throughout the site, we anticipate that ground squirrels and other small mammals will continue to inhabit grounds adjacent to the proposed project” (**Appendix G**).

No additional agency coordination has occurred to date on this Project.

Limitations That May Influence the Results

No limitations were encountered in the field that would influence the results of the surveys or limit the information provided in this NES.

CHAPTER 3: RESULTS – ENVIRONMENTAL SETTING

Description of the Existing Physical and Biological Conditions

The BSA is located within Section 27 of Township 7 North, Range 5 East of the USGS *Florin*, *California* 7.5-minute quadrangle (38° 25' 57.29" North, 121° 25' 2.64" West) (**Figure 2**). The BSA is located in an undeveloped area of the City of Elk Grove with single-family residences, community parks, and small business shopping centers within the immediate surrounding area.

Study Area

The ±20.16-acre BSA consists of undeveloped land that is bordered by residential neighborhoods and moderate to heavy trafficked roads (**Figure 3**). Minor to moderate disturbance was observed within the BSA including established invasive and/or noxious weeds, disturbed land from continuous pedestrian use, and trash. Representative site photographs of the BSA are included in **Appendix H**.

Physical Conditions

The general topography of the BSA is flat; evidence of past grading, plowing, and/or mowing is present and is visible on aerial images. The microtopography within the BSA consists of concavities and convexities and is generally comprised of irregular, broken terrain. Elevations range from approximately 19.5 feet above mean sea level (MSL) in the western portions of the BSA to approximately 26 feet above MSL in the eastern portions of the BSA.

The BSA includes five soil types: **Galt clay, 0 to 1 percent slopes; San Joaquin silt loam, leveled, 0 to 1 percent slopes; San Joaquin silt loam, 0 to 3 percent slopes; San Joaquin-Galt complex, leveled, 0 to 1 percent slopes;** and **San Joaquin-Galt complex, 0 to 3 percent slopes**. General characteristics and properties associated with these soils are described below (UC Davis 2019 and USDA, NRCS 2023).

- **(152) Galt Clay, 0 to 1 Percent Slopes**

  This soil type consists of clayey alluvium derived from igneous, metamorphic and sedimentary rock over cemented alluvium. It is somewhat poorly drained and has a high runoff class. Frequent ponding is typical and flooding is rare. Vegetation typically found on this soil unit mainly consists of annual grasses. The hydric soils list for Sacramento County identifies two hydric inclusions occurring within this soil type: Clearlake, occurring within depressions and basins, and an unnamed hydric soil inclusion in depressions and basins. This soil type occurs within the central portion of the BSA, within the two trail segments.

- **(213) San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes**

  This soil type consists of alluvium derived from granite. It is moderately well drained and has a high runoff class. Ponding or flooding is infrequent. Vegetation typically found on this soil unit consists of non-native annual grasses, herbaceous plant species, and some native oaks. The hydric soils list for Sacramento County identifies one hydric inclusion occurring within this soil type: Galt, occurring within depressions. This soil type is absent within the central portion of the BSA but occurs within the two trail segments.

- **(214) San Joaquin Silt Loam, 0 to 3 Percent Slopes**

  This soil type consists of alluvium derived from granite. It is moderately well-drained and has a high runoff class. Ponding or flooding is infrequent. Vegetation typically found on this soil unit also consists of non-native annual grasses, herbaceous plant species, and some native oaks. The hydric soils list for Sacramento County identifies one hydric inclusion occurring within this soil type: Galt, occurring within depressions. This soil type occurs within the central portion of the BSA.

- **(217) San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes**

  This soil type consists of alluvium derived from granite. It is moderately well-drained and has a high runoff class. Ponding or flooding is infrequent. Vegetation typically found on this unit consists of annual grasses and forbs. The hydric soils list for Sacramento County identifies one hydric inclusion occurring within this soil type: Galt, occurring within depressions. This soil type occurs within the disjunct element of the BSA approximately 0.3 miles south of Big Horn Boulevard along the western edge of Bruceville Road.

- **(218) San Joaquin-Galt Complex, 0 to 3 Percent Slopes**

  This soil type consists of alluvium derived from granite. It is moderately well-drained and has a high runoff class. Ponding or flooding is infrequent. Vegetation typically found on this unit consists of annual grasses and forbs. The hydric soils list for Sacramento County identifies one hydric inclusion occurring within this soil type: Galt, occurring within depressions. This soil type occurs within the central section of the BSA along the eastern edge of Bruceville Road.

Biological Conditions within the Biological Study Area

California annual grassland (annual grassland) is the only undeveloped upland biological community that occurs within the BSA. Six types of aquatic features occur within the BSA: depressional seasonal wetland, vernal pool, riverine seasonal marsh, riverine perennial marsh, channel, and creek. Disturbed/developed habitat, consisting of existing roads, sidewalks/road shoulders, a bridge, and riprap, also occurs within the BSA. The mapped locations of biological communities are illustrated in **Figure 4** and undeveloped communities are discussed in detail in the following sections.

Annual Grassland

A total of 12.33 acres of annual grassland occurs throughout the BSA. This vegetation type occurs in a majority of the State at elevations from sea level to approximately 4,000 feet above MSL. Typically, this vegetation type is dominated by upland (non-wetland) plant species. Species of grasses are the predominant component within this vegetation type, with herbaceous plant species also present to varying degrees. Dominant vegetation observed within this vegetation community within the BSA includes: Italian ryegrass (*Festuca perennis*), soft brome (*Bromus hordeaceus*), wild oat (*Avena barbata*), medusahead (*Elymus caput-medusae*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), brome fescue (*Festuca bromoides*), ripgut brome (*Bromus diandrus*), long-beaked filaree (*Erodium botrys*), cut leaved geranium (*Geranium dissectum*), rose clover (*Trifolium hirtum*), and hairy vetch (*Vicia villosa*). Photographs of annual grassland within the BSA are included in **Appendix H**.

Aquatic Resources

Vernal Pools

A total of **0.30 acre** of vernal pools has been delineated within the current BSA (HELIX 2020). Vernal pools are shallow, seasonally inundated depressions within the topography that form in soils with a subsurface layer that restricts the downward flow of water, causing them to pond for extended, variable periods of time. These layers include hardpans, claypans, or thick clay layers. Depending on common factors such as daily average temperatures and the amount and frequency of seasonal precipitation, vernal pools may pond for days, weeks, or even months. Plant species occurring within vernal pools are those that have adapted to extended periods of inundation and, as such, are commonly associated with these seasonal wetland features. Photographs of vernal pools delineated within the BSA are included in **Appendix H**.

One vernal pool occurs within Segment 1 of the BSA (**Figure 4**). Plant species observed in the vernal pool include: coyote thistle (*Eryngium* spp.), white headed navarretia (*Navarretia leucocephala* ssp*. leucocephala*)*,* Fremont's goldfields (*Lasthenia fremontii*), vernal pool allocarya (*Plagiobothrys stipitatus* var. *micranthus*), and vernal pool buttercup (*Ranunculus bonariensis* var. *trisepalus*).

Depressional Seasonal Wetlands

A total of **0.23 acre** of depressional seasonal wetlands have been delineated within the current BSA (HELIX 2020). As with vernal pools, depressional seasonal wetlands are shallow depressions within the topography that inundate during the normal wet season. A restrictive layer may be present, weakly formed, or absent. These features are typically shallower than vernal pools and generally do not pond for durations as extended as vernal pools. These features exhibit a hydrologic regime dominated by saturation, rather than inundation. Plant species occurring within depressional seasonal wetlands are adapted to withstand short periods of saturated soils conditions but will not withstand prolonged periods of inundation, as is common in vernal pools. Photographs of depressional seasonal wetlands delineated within the BSA are included in **Appendix H**.

One depressional seasonal wetland occurs in the southern portion of Segment 1 and small sections of a depressional seasonal wetland occur in the northwest portion of Segment 1 on the east side of Bruceville Road (**Figure 4**). Plant species observed in the depressional seasonal wetlands include: sedge (*Carex* spp.), nut sedge (*Cyperus* spp.), pennyroyal (*Mentha pulegium*), rabbitsfoot grass (*Polypogon monspeliensis*), curvepod yellow cress (*Rorippa curvisiliqua*), and hyssop loosestrife (*Lythrum hyssopifolia*).

Riverine Seasonal Marsh

Less than **0.01 acre** of riverine seasonal marsh occurs in the BSA (**Figure 4**). Seasonal marshes are seasonally saturated and/or inundated and the saturation/inundation persists for some period into the warm season, but generally not beyond. Plants species occurring within riverine seasonal marshes are typically adapted to this hydrologic regime. Riverine seasonal marshes typically exhibit a unidirectional flow of water for some portion of the wet season. Within the Great Central Valley, these features are typically located along the fringes of slow moving, low gradient riverine systems or at the lower extents of the downstream terminus of riverine seasonal features, but they can persist outside of such settings.

The riverine seasonal marsh within the BSA occurs within Segment 1 at the trail entrance from Lyndale Circle (**Figure 4**). This feature was not included in the original 2020 wetland delineation for the Project because it is located on private property that was not assessed until the March 15, 2023, survey. This feature is proposed to be avoided by the current trail alignment and occurs along the perimeter of the current BSA. Plant species observed in the riverine seasonal marsh include: sedge, nut sedge, dock (*Rumex* spp.), and rushes (*Juncus* spp.).

Riverine Perennial Marsh

A total of **0.12 acre** of riverine perennial marsh has been delineated within the current BSA (HELIX 2020). Riverine perennial marshes exhibit unidirectional water flow, at least during the normal wet season. Typically, riverine perennial marshes remain inundated or saturated throughout the year. The persistence of inundation/saturation throughout the year permits the growth of warm-season wetland grasses, perennial herbaceous plant species, and, often, perennial woody plant species such as shrubs and trees. Riverine perennial marshes typically occur in association with perennial, flowing features such as brooks, creeks, rivers, and streams, typically on the fringes of such features.

A portion of a riverine perennial marsh occurs in Segment 1 on the east side of Bruceville Road (**Figure 4**). Plant species observed in the riverine perennial marsh include narrow leaved willow (*Salix exigua*), Gooding's willow (*Salix goodingii*), sedge, rushes, and dock.

Channel and Creek

A total of **0.01** acre of channel and **0.05** acre of creek have been delineated within the BSA. Both features typically exhibit a bed, bank, and ordinary high-water mark. In most cases, these features are not vegetated because of the scouring effect of moving water; however, they may be colonized by plant species during periods of low flow or may contain scattered annuals or perennials. The creek and channel occur below a bridge along Bruceville Road. Due to the features occurring below the bridge structure mapped as disturbed/developed habitat, the total acreage in **Figure 4** is a summed total of the bridge structure and the channel and creek occurring under the bridge (0.04 acre).

Plant species observed within the channel and creek include: sedge, rushes, willows, and tule (*Schoenoplectus acutus* var*. occidentalis*).

Other Features

Two roadside ditches totaling **0.08** acre have been delineated within the BSA (**Figure 4**).

A narrow roadside ditch occurs within the small disjunct element of the BSA approximately 0.3 miles south of Big Horn Boulevard, along the western side of Bruceville Road. The ditch is dominated by upland plant species, lacks wetland hydrology indicators and hydric soil indicators, and does not have a well-defined ordinary high-water mark. The ditch appears to be nonfunctioning, with no field indicators that would provide evidence of recent flow, saturation or inundation. The roadside ditch appears to be one of the only open, earthen-lined ditches in the immediate area, perhaps an indication that as the area is being developed, the older ditches are being buried and replaced with a modern sidewalk and gutter system that conveys stormwater runoff into a subterranean water conveyance system.

A second roadside ditch occurs within the BSA along the east side of Bruceville Road (**Figure 4**). This ditch has a defined ordinary high-water mark, is unvegetated, is not a tributary to a wetland or other water, and it does not drain a wetland or a water. As such, it appears to be a single isolated roadside ditch.

Common Animal Species

Common animal species observed within the BSA during the biological surveys include: red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), western kingbird (*Tyrannus verticalis*), killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), western fence lizard (*Sceloporus occidentalis occidentalis*), valley garter snake (*Thamnophis sirtalis fitchi*), and black-tailed jackrabbit (*Lepus californicus*).

Invasive Species

Invasive plant species, as identified by Cal-IPC, observed within the BSA include: Italian thistle (*Carduus pycnocephalus*), yellow star-thistle (*Centaurea solstitialis*), stinkwort (*Dittrichia graveolens*), rattail fescue (*Festuca myuros*), medusahead, Italian rye grass, and brome fescue. A full list of plant and wildlife species observed is included in **Appendix E**.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat and limits dispersal. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The BSA itself is not considered a wildlife corridor because it does not link two significant habitats. However, Laguna Creek and Elk Grove Creek which are adjacent to the BSA likely serve as a corridor for semi-aquatic and terrestrial wildlife species. These watersheds are part of a network of creeks, tributaries, and canals that flow through the urbanized environment of Elk Grove and create an essentially unobstructed pathway for wildlife species to navigate through. Elk Grove Creek and Laguna Creek provide a direct connection to Upper Beach Lake Wildlife Area approximately three miles from the BSA. This Wildlife Area is a sanctuary for many wildlife species and provides habitat that connects to a delta system and the Sacramento River.

Although Elk Grove Creek and Laguna Creek adjacent to the BSA are likely a wildlife corridor, these features are not anticipated to be impacted by the Project. With appropriate construction practices and procedures, construction of the proposed trail is not expected to impact these waterways. Disturbance from construction is not anticipated to negatively affect wildlife movement through the area, as species are likely accustomed to a level of human disturbance due to the existing degree of development within and immediately adjacent to the BSA. Once construction of the trail is complete, wildlife movement will likely continue at current levels since the Project will not restrict movement as permanent fences or other movement barriers are not proposed as part of the Project. The trail is proposed to be constructed

outside of the main creek channel which would be expected to be the primary movement corridors for local wildlife.

Regional Species, Habitats, and Natural Communities of Concern

The biological communities present within the BSA are relatively common throughout the local area and region. However, Northern hardpan vernal pool, a natural community of concern, is present within the BSA. No designated critical habitat is present within the BSA (CDFW 2023, USFWS 2023).

A review of regionally occurring special-status species was conducted through the CDFW's CNDDB (CDFW 2023; **Appendix A**), the CNPS Ranking List (CNPS 2023; **Appendix B**), the USFWS IPaC list (USFWS 2023; **Appendix C**) for special-status species documented within the *Florin, Sacramento West, Sacramento East, Carmichael, Elk Grove, Galt, Bruceville, Courtland, and Clarksburg* USGS quadrangles, and the NOAA *West Coast Region, Species Directory, for ESA Threatened & Endangered Marine Species* (NOAA 2023; **Appendix D**).

Table 1 below provides results of these database searches and the potential for special-status species to occur within the BSA. Species regulatory status, habitat descriptions, and a rationale as to whether the species could potentially occur within the BSA (Habitat Present, HP), have no habitat or potential for occurrence (Absent, A), or are present (Present, P) within the BSA are also included in the table.

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Table 1: Regionally Occurring Special-Status Species

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Plants					
Ahart's dwarf rush	*Juncus leiospermus* var. *ahartii*	--; --; --; 1B	Annual herb that occurs in vernal pools and wetlands within valley and foothill grasslands. Blooming period: March-May	HP	The BSA provides suitable habitat for this species within the vernal pools, depressional seasonal wetlands, and the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Boggs lake hedge hyssop	*Gratiola heterosepala*	--; --; --; 1B	Annual herb that occurs in vernal pools, lake margins, and wetland edge habitats. Blooming period: April-August	HP	The BSA provides suitable habitat for this species within the vernal pools and wetland edge habitats. Three CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Bolander's water-hemlock	*Cicuta maculata* var. *bolanderi*	--; --; --; 2B	Perennial herb that occurs in marshes and swamps within coastal salt marsh habitats. Blooming period: July-September	A	Coastal salt marsh habitat is absent from the BSA; therefore, no suitable habitat is present. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Bristy sedge	*Carex comosa*	--; --; --; 2B	Perennial rhizomatous herb that occurs in wetlands, lake margins, and edge habitats. Occurs in coastal prairie, and foothill and valley grasslands. Blooming period: May-September	HP	The BSA provides suitable habitat for this species within the depressional seasonal wetlands. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Delta mudwort	*Limosella australis*	--; --; --; 2B	Perennial herb that occurs in in mud banks of freshwater or brackish marsh and riparian scrub habitats.	A	Mud banks are absent from the BSA; no suitable habitat is present. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	--; --; --; 1B	Perennial herb that occurs in wetlands. May occur in freshwater or brackish wetlands. Blooming period: May-July	HP	The BSA provides suitable habitat for this species within the depressional seasonal wetlands. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Dwarf downingia	*Downingia pusilla*	--; --; --; 2B	Annual herb that occurs in vernal pools within valley grassland, freshwater wetland, and wetland-riparian habitats. Blooming period: March-May	HP	The BSA provides suitable habitat for this species within the vernal pools. Three CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Ferris' milk-vetch	*Astragalus tener* var. *ferrisiae*	--; --; --; 1B	Annual herb that occurs in meadows and seeps (vernally mesic) within valley and foothill grassland habitats. Blooming period: April-May	A	Meadows and seeps are absent from the BSA; no suitable habitat is present. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Ferris' goldfields	*Lasthenia ferrisiae*	--; --; --; 4.2	Annual herb that occurs in vernal pools (often alkaline) and wetlands within valley grassland habitats. Blooming period: February-May	HP	The BSA provides suitable habitat for this species within the vernal pools and the depressional seasonal wetlands. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Heckard's pepper-grass	*Lepidium latipes* var. *heckardii*	--; --; --; 1B	Annual herb that occurs in wetlands within valley and foothill grasslands. Blooming period: March-May	HP	The BSA provides suitable habitat within the depressional seasonal wetlands. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Hoary navarretia	*Navarretia eriocephala*	--; --; --; 4.3	Annual herb that occurs in wetlands and non-wetlands within cismontane woodland, foothill woodlands, and valley grassland habitats. Blooming period: May-June	HP	The BSA provides suitable habitat for this species within the depressional seasonal wetlands. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Hogwallow starfish	*Hesperevax caulescens*	--; --; --; 4.2	Annual herb that occurs in wetlands and shallow vernal pools within valley and foothill grassland (often mesic or clay). Blooming period: March-June	HP	The BSA provides suitable habitat for this species within the vernal pools, depressional seasonal wetlands, and the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Lenenere	*Legenere limosa*	--; --; --; 1B	Annual herb that occurs in vernal pools within valley grassland, freshwater wetland, and wetland-riparian habitats. Blooming period: April-June	HP	The BSA provides suitable habitat for this species within the vernal pools. Nine CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Marsh skullcap	*Scutellaria galericulata*	--; --; --; 2B	Perennial rhizomatous herb that occurs in mashes and swamps. Blooming period: June-September	HP	The BSA provides suitable habitat for this species within the riverine seasonal marsh and riverine perennial marsh. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Mason's lilaeopsis	*Lilaeopsis masonii*	--; --; --; 1B	Perennial rhizomatous herb that occurs in wetlands, marshes, and wetland riparian habitats. Blooming period: April-November	HP	The BSA provides suitable habitat for this species within the depressional seasonal wetlands and the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Northern California black walnut	*Juglans hindsii*	--; --; --; 1B	Tree that occurs in foothill woodland and wetland-riparian habitats Blooming period: April-May	A	The BSA does not contain suitable habitat for this species. Although several black walnut trees occur within the BSA and within parcel 116-0011-004, these trees are not a natural grove and hybridization is likely but unknown. The CNPS defines a Northern California black walnut tree as a California native rare plant only if it germinated prior to 1840 (CNPS 2023). The trees within the BSA did not germinate prior to 1840, are not a natural grove, and hybridization is unknown; therefore, protection is not warranted for these trees. One CNDDB occurrence is documented within five miles of the BSA (CDFW 2023).
Pappose tarplant	*Centromadia parryi* ssp. *parryi*	--; --; --; 1B	Annual herb that occurs in wetlands, marshes, seeps, and meadows within chaparral, coastal prairie, or valley and foothill grasslands. Blooming period: May-November	HP	The BSA provides suitable habitat for this species within the depressional seasonal wetlands and the riverine seasonal marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Parry's rough tarplant	*Centromadia parryi* ssp. *rudis*	--; --; --; 4.2	Annual herb that occurs in vernal pools within valley foothill and grassland habitats. Often within alkaline, vernally mesic areas. Blooming period: May-October	HP	The BSA provides suitable habitat for this species within the vernal pools. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Peruvian dodder	*Cuscuta obtusiflora* var. *glandulosa*	--; --; --; 2B	Annual vine (parasitic) that occurs in freshwater marshes and swamps. Blooming period: July-October	HP	The BSA contains suitable habitat for this species within the riverine marshes. One CNDDB occurrence is documented within 5 miles of the BSA (CDFW 2023).
Sacramento Orcutt grass	*Orcuttia viscida*	FE; CE; --; 1B	Annual herb that occurs in vernal pools within valley grassland habitats. Blooming period: April-September	A	Although vernal pools are present in the BSA, the pools are too small and shallow to provide suitable habitat for this species. The proposed Project will have no effect on this species. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Saline clover	*Trifolium hydrophilum*	--; --; --; 1B	Annual herb that is typically found in wetland-riparian habitats. May also occur in non-wetland habitats such as mesic or alkaline foothill grasslands. Blooming period: April-June	HP	The BSA contains suitable habitat for this species within the depressional seasonal wetlands and the riverine marshes. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Sanford's arrowhead	*Sagittaria sanfordii*	--; --; --; 1B	Perennial, rhizomatous herb found in freshwater marsh, wetlands, and wetland-riparian habitats. Blooming period: May-October	HP	The BSA contains suitable habitat for this species within the depressional seasonal wetlands and the riverine marshes. Eighteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Side-flowering skullcap	*Scutellaria lateriflora*	--; --; --; 2B	Perennial rhizomatous herb that occurs in meadows, seeps, marshes, and swamps. Blooming period: July-September	HP	The BSA provides suitable habitat for this species within the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Slender Orcutt grass	*Orcuttia tenuis*	FT; CE; --; 1B	Annual herb that occurs in vernal pools (often with gravelly substrate) within valley grassland and foothill woodland habitats. Blooming period: May-October	A	Although vernal pools are present in the BSA, the pools are too small and shallow to provide suitable habitat for this species. The proposed Project will have no effect on this species. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Suisun Marsh aster	*Symphyotrichum lentum*	--; --; --; 1B	Perennial rhizomatous herb that occurs in freshwater or brackish marshes. Blooming period: April-November	HP	The BSA provides suitable habitat for this species within the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Valley brodiaea	*Brodiaea rosea* ssp. *vallicola*	--; --; --; 4.2	Perennial bulbiferous herb that occurs in swales and vernal pools within valley and foothill grassland habitats. Blooming period: April-June	HP	The BSA provides suitable habitat for this species within the vernal pools. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Watershield	*Brasenia schreberi*	--; --; --; 2B	Aquatic perennial herb that occurs in freshwater marshes and swamps Blooming period: June-September	HP	The BSA provides suitable habitat for this species within the riverine marshes. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Wooly rose-mallow	*Hibiscus lasiocarpos* var. *occidentalis*	--; --; --; 1B	Perennial herb found in freshwater marsh, wetland, and wetland-riparian habitats. Blooming period: June-September	HP	The BSA contains suitable habitat for this species within the depressional seasonal wetlands and the riverine marshes. Three CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Wildlife					
Invertebrates					
American bumblebee	*Bombus pensylvanicus*	--; CC; --; --	Occurs in coastal prairie and grassland habitats. Forages on floral species such as vetches (Vicia), clovers (Trifolium), thistles (Cirsium), sunflowers (Helianthus), etc. Nests above ground under long grass or underground. Queens overwinter in rotten wood or underground. Currently considered rare throughout its range.	A	The BSA does not contain floral species this bumblebee forages on and is dominated by invasive grasses. In addition, this species is currently considered rare across its range. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
California linderiella	*Linderiella occidentalis*	--; --; --; CSA	Occurs in a variety of vernal pool types and ephemeral freshwater habitats and is often found within deeper pools. Known within Shasta, Tehama, Butte, Yuba, Placer, Sacramento, El Dorado, Solano, San Joaquin, Contra Costa, Alameda, Stanislaus, Merced, Madera, Fresno, Monterey, Marin, Sonoma, San Benito, San Luis Obispo, Santa Barbara, and Ventura Counties.	HP	The BSA provides suitable habitat for this species within the vernal pools and depressional seasonal wetlands. Nineteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Crotch's bumblebee	*Bombus crotchii*	--; CC; --; --	Known range includes the California coast east to the Sierra-Cascade crest and south into Mexico. Occurs in grassland and shrubland habitats and requires hotter and drier conditions than other bumblebee species. Forages on milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Currently considered rare throughout its range.	A	The BSA does not contain floral species this bumblebee forages on and is dominated by invasive grasses. In addition, this species is currently considered rare across its range. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Hairy water flea	*Dumontia oregonensis*	--; --; --; CSA	Occurs in vernal pools and seasonal wetland habitats. Known to occur in Sacramento and Solano Counties.	HP	The BSA provides suitable habitat within the vernal pools and depressional seasonal wetland habitats. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Midvalley fairy shrimp	*Branchinecta mesovallensis*	--; --; --; CSA	Inhabits small vernal pools and grassy swales. Known within the Southeastern Sacramento, Southern Sierra Foothill, San Joaquin, and Solano-Colusa Vernal Pool Regions.	HP	The BSA provides suitable habitat for this species within the vernal pools and within the depressional seasonal wetlands. Nine CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Monarch butterfly	*Danaus plexippus*	FC; --; --; --	In winter, aggregates in clusters at forested groves scattered along the Pacific coast from Mendocino County to Baja California, Mexico. Disperses in spring and summer. Females lay eggs on milkweed (*Asclepias* spp.), and sometimes *Gomphocarpus* spp. and *Calotropis* spp. These plant species are critical for successful development of the caterpillar into an adult butterfly.	A	The BSA does not provide suitable habitat for this species and is not located in a wintering area. No milkweed plants were observed in the BSA. Monarch butterfly may pass through the BSA during migration but is not expected to be impacted by the Project. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Ricksecker's water scavenger beetle	*Hydrochara rickseckeri*	--; --; --; CSA	Occurs in vernal pools, seeps, slow-moving streams, and ponds. Associated with habitats with diverse aquatic vegetation.	HP	The BSA provides suitable habitat for this species within the vernal pools. No documented occurrences in the CNDDB within 5 miles of the BSA (CDFW 2023).
Sacramento Valley tiger beetle	*Cicindela hirticollis abrupta*	--; --; --; CSA	Occurs on sandy shores of lakes, rivers, estuaries, and along the coast. Historically known to occur along the Sacramento and Feather Rivers.	A	The BSA does not provide suitable habitat for this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT; --; --; --	Endemic to the Central Valley of California and is only found in association with elderberry (*Sambucus* sp.) shrubs. Usually found near riparian areas.	A	No elderberry shrubs were observed within or adjacent to the BSA; suitable habitat is absent. The BSA is outside of the designated critical habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat. Known within Alameda, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kings, Madera, Merced, Monterey, Napa, Placer, Riverside, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Ventura, Yolo, and Yuba Counties.	HP	The BSA provides suitable habitat within the vernal pools, and within the depressional and riverine seasonal wetlands. The proposed Project may affect and is likely to adversely affect this species. Fifteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE; --; --; --	Inhabits vernal pools, swales, and ephemeral freshwater habitats. Known within Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties.	HP	The BSA provides suitable habitat within the vernal pools and within the depressional seasonal wetlands. The proposed Project may affect and is likely to adversely affect this species. Nineteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Fish					
Bocaccio	*Sebastes paucispinis*	FE; --;--;--	Range from Punta Blanca, Baja California, to the Gulf of Alaska off Krozoff and the Kodiak Islands but are most common between Oregon and northern Baja California. Occur at various depths from the surface to 1,568 feet; most live between 150–1,000 feet. Large Pacific coast rockfish that are moderately slow-growing, late to mature, and long-lived.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Central Valley steelhead DPS	*Oncorhynchus mykiss irideus*	FT; --; --; --	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample riparian vegetation cover or overhanging banks. Spawning occurs in streams with pool and riffle complexes. The species requires cold water and gravelly streambed to successfully breed. Spawn in the Fresno and San Joaquin rivers and tributaries before migrating to the Delta bays.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. One CNDDB occurrence is documented within 5 miles of the BSA (CDFW 2023).
Chinook salmon – Central Valley (CV) spring run and Sacramento River (SR) winter run	*Oncorhynchus tshawytscha*	(CV) FT; CT; --; -- (SR) FE; CE; --; --	CV: Remnant runs remain in Butte, Mill, Deer, Antelope, and Beegum Creeks; tributaries to the Sacramento River. SR: Runs return to freshwater through the Delta and spawn in the upper mainstem of the Sacramento River.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Chum salmon	*Oncorhynchus keta*	FT; --; --; --	Occur throughout Alaska and as far south as Yaquina Bay, Oregon. Spend their early life in fresh water streams, estuaries, and associated wetlands. Then migrate and spend the remainder of their life foraging in the ocean before returning to the streams and tributaries where they were born to spawn.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Coho salmon Central California Coast ESU	*Oncorhynchus kisutch*	FE; SE; --; --	This ESU includes naturally spawned coho salmon originating from rivers south of Punta Gorda, California to and including Aptos Creek, as well as such coho salmon originating from tributaries to San Francisco Bay. This ESU also includes coho salmon from the following artificial propagation programs: Don Clausen Fish Hatchery Captive Broodstock Program, Scott Creek/King Fisher Flats Conservation Program and Scott Creek Captive Broodstock Program. Spawn in small coastal streams.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Delta smelt	*Hypomesus transpacificus*	FT; CE; ---; --	Found in estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta.	A	The BSA does not provide suitable habitat for this species. The BSA is outside of the designated critical habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Eulachon Southern DPS	*Thaleichthys pacificus*	FT; --; --; --	Anadromous; however, spends about 95 percent of their life at sea, returning to spawn in the lower portions of coastal rivers. Range from northern California to the southeastern Bering Sea coast of Alaska. The Southern DPS spawns in rivers ranging from the Mad River in California to the Skeena River in northern British Columbia, Canada.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Green sturgeon pop. 1	*Acipenser medirostris*	FT; --; --; --	Spawns in the Sacramento, Feather, and Yuba rivers; presence in upper Stanislaus and San Joaquin rivers may indicate spawning in these rivers as well. Non-spawning adults occupy marine/estuarine waters and the Delta Estuary is important for rearing juveniles.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. One CNDDB occurrence is documented within 5 miles of the BSA (CDFW 2023).
Longfin smelt	*Spirinchus thaleichthys*	FC; CT; SSC; --	Occurs in a range of aquatic habitats and can tolerate freshwater to near saline conditions. Typically found in coastal waters near shore, bays, estuaries, and rivers. Some populations are landlocked in lakes.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. One CNDDB occurrence is documented within 5 miles of the BSA (CDFW 2023).
Oceanic whitetip shark	*Carcharhinus longimanus*	FT; --; --; --	Found throughout the world in tropical and sub-tropical waters. Pelagic species, generally found offshore in the open ocean, on the outer continental shelf, or around oceanic islands in deep water areas.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Sacramento perch	*Archoplites interruptus*	--; --; CSC; --	Native populations occur within the Sacramento and San Joaquin Rivers, associated standing waters, and delta. Can tolerate alkaline waters and have been introduced to habitats for sport fishing.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Sacramento splittail	*Pogonichthys macrolepidotus*	--; --; CSC; --	Found in freshwater pools and backwaters of rivers, lakes, slow-moving waters, and sloughs of the Delta. Spawns over flooded vegetation in tidal freshwater and euryhaline habitats.	A	The BSA does not provide suitable habitat for this species. The proposed Project will have no effect on this species. One CNDDB occurrence is documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Scalloped hammerhead shark Eastern Pacific DPS	*Sphyrna lewini*	FE; --; --; --	Coastal pelagic species that occurs over continental and insular shelves and in nearby deeper water. It is found in warm temperate and tropical waters.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Sockeye salmon Snake River ESU	*Oncorhynchus nerka*	FE; --; --; --	Includes all anadromous and residual sockeye salmon from the Snake River basin in Idaho, as well as artificially propagated sockeye salmon from the Redfish Lake captive propagation and SR sockeye salmon hatchery programs. Snake River sockeye salmon usually spend 2 to 3 years in the Pacific Ocean and return to Idaho in their 4th or 5th year of life.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Yelloweye rockfish Puget Sound/ Georgia Basin DPS	*Sebastes ruberrimus*	FT; --; --; --	Pelagic species found from the Aleutian Islands to the Baja Peninsula. Most commonly found between 300 ft and 600 ft but have been found in water as shallow as 48 ft and as deep as 1,800 ft.	A	The BSA does not provide suitable habitat for this species and is outside of the known range of this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Amphibians/Reptiles					
California red-legged frog	*Rana draytonii*	FT; --; CSC; --	Aquatic habitat typically includes slow-moving streams, ponds, or marsh communities with emergent vegetation. Prefers aquatic habitats within or near humid forests, woodlands, grasslands, or other cool, moist areas. Small standing pools (less than 3 feet deep) are typically used for breeding. Nearby upland habitat with downed debris for refuge is also required. Typically found in or within 300 feet of aquatic habitat but may disperse up to two miles away from aquatic habitats. Elevational range extends from sea level to about 5,000 ft., but typically occur below 3,935 ft.	A	The BSA does not contain suitable habitat for this species. Although some aquatic features are present within the BSA, the features are lacking suitable emergent vegetation, cover, and breeding pools. The BSA is lacking downed debris and other features that could be suitable upland refugia habitat for this species. The BSA is also lacking areas with cool, moist, or wooded habitats and is not within dispersal distance to any other cool, moist, or wooded habitats. In addition, this species is generally considered extirpated from the Central Valley including the BSA. The BSA is outside of the designated critical habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
California tiger salamander	*Ambystoma californiense*	FT; CT; --; --	Requires both aquatic breeding habitat such as vernal pools, temporary ponds, stock ponds, or wetlands, and adjacent upland habitat with small mammal burrows present for refuge. Typically aestivates throughout summer. This species is known to occur within the Central Valley, Santa Barbara, and Sonoma counties.	A	Although the BSA contains some freshwater aquatic features and suitable upland habitat, there are no documented occurrences or known breeding ponds within 10 miles of the BSA; well outside the maximum dispersal distance of this species (approx. 1.5 miles). Additionally, no suitable burrows for this species to utilize as upland refugia habitat were observed during the field surveys. The BSA is also outside of designated critical habitat for this species. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Giant garter snake	*Thamnophis gigas*	FT; CT; --; --	Occurs in aquatic habitats with open, sunny areas for basking, vegetation cover along banks, and abundant prey. Typically occurs in agricultural wetlands, canals, and sloughs; especially near rice fields. Upland habitat with small mammal burrows present above flood level is also required for this species. Known in Sacramento, Sutter, Butte, Colusa, Merced and Glenn counties.	HP	The BSA does not contain suitable aquatic habitat for this species but suitable aquatic habitat is present within Elk Grove Creek, inundated portions of Laguna Creek, a pond, and associated marshy edges that occur adjacent to the BSA. Some suitable burrows were observed within the BSA and the BSA could provide suitable basking habitat in areas near the adjacent aquatic habitat. The proposed Project may affect and is likely to adversely affect this species. Eight CNDDB occurrences are documented within 5 miles of the BSA and one of the occurrence records is within the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Western pond turtle	*Emys marmorata*	FPT; --; CSC; --	Occurs in a variety of aquatic habitats such as ponds, creeks, ditches, lakes, and marshes. Prefers areas with abundant vegetation and rocky or muddy substrate. Exposed banks or other basking areas such as logs or cattail mats are required. Upland habitat typically occurs within woodlands, forests, or grasslands that are within the vicinity of aquatic habitat.	P	The BSA contains suitable upland habitat for this species. Although no suitable aquatic habitat is present within the BSA, the BSA is within dispersal distance from suitable aquatic habitat that occurs adjacent to the BSA within a pond, Elk Grove Creek, Laguna Creek and associated marshy edges. One western pond turtle was observed within Laguna Creek during the April 23, 2019 field survey. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Western spadefoot	*Spea hammondii*	--; --; CSC; --	Occurs in open areas with sandy or gravelly soils. Typically found in river floodplains, sandy washes, open grasslands, chaparral, and open foothill woodlands. Estivates in burrows and typically only emerges to breed during cooler months. Breeds in shallow pools after heavy rains.	HP	The BSA does not contain suitable soil necessary for this species to aestivate. The soil within the BSA is compact and very hard which makes estivation nearly impossible for this species. However, suitable soil may be present in areas adjacent to the BSA and within dispersal distance to the BSA. Vernal pools within the BSA provide suitable breeding habitat for this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Birds					
Bank swallow	*Riparia riparia*	--; CT; --; --	Occur in low lying areas along rivers, streams, coasts, and reservoirs. Typically nest in large colonies in burrows dug into vertical cliffs, banks, or bluffs. The colonies nest in areas with fairly loose soil and near large bodies of water. Forage in open areas.	A	No cliffs, banks, bluffs, or other suitable nesting habitat occurs within the BSA. The BSA provides an open space suitable for foraging but with the absence of nesting habitat and nearby large water sources, foraging is unlikely. Suitable habitat is absent from the BSA. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Burrowing owl	*Athene cunicularia*	--; --; CSC; -- (burrowing sites and some wintering sites)	Occur in a variety of open habitats, typically grasslands, vegetated desert scrub, fallow fields, washes, and human disturbed lands such as golf courses and vacant lots. Small mammal burrows, perch sites and friable soil are necessary for this species. May utilize culverts, abandoned pipelines, and other manmade structures for nesting.	A	The BSA contains tall, dense vegetation and no burrows or other structures were observed that could provide nesting habitat for this species. The soil within the BSA is also very hard and compact which is unsuitable for use by burrowing owls. Twelve CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
California black rail	*Laterallus jamaicensis coturniculus*	--; CFP; CT; --	Occur in tidal marshes and other coastal marsh habitats. Also occurs in large, dense, shallow marshes, wet meadows, and flooded areas with grassy vegetation. The majority of these species occur in tidal salt marshes, but small isolated populations occur within freshwater marshes of the foothills of the Sierra Nevada. Breeds and nests in higher elevation marshes dominated by *Scirpus* and *Salicornia.*	A	Large, dense, marshy habitats are absent from the BSA. No stands of *Scirpus* or *Salicornia* are present within the BSA that would provide suitable nesting habitats. Suitable habitat is absent. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Golden eagle	*Aquila chrysaetos*	--; CFP; --; --	Occur in open and semi-open habitats. Typically found in areas of cliffs, ridges, or canyonlands. Most often nests on cliffs and may also nest in trees, on the ground, or tall man-made structures such as transmission towers or windmills. This species avoids developed areas and fragmented urbanized environments.	A	The BSA is located within a fragmented urbanized environment that is typically avoided by this species. No suitable nest locations are present within the BSA; therefore, suitable habitat is absent. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Least Bell's vireo	*Vireo bellii pusillus*	FE; CE; --; --	Occur in dense shrubby areas such as coastal chaparral, scrub oak, riverine scrub, and brushy fields. This species avoids open areas. Nests in dense, brushy vegetation near the ground.	A	The BSA does not contain any dense, brushy areas suitable for this species; therefore, suitable habitat is not present. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Purple martin	*Progne subis*	--; --; CSC; --	Occur in a variety of habitats and nest within cavities of abandoned woodpecker holes, snags, cliffs, or man-made cavities such as bird houses, traffic lights, or buildings.	A	No suitable nesting cavities are present within the BSA. Trees are largely absent from the BRA and no cavities were observed within the few trees that are present. No other potential nest cavities are present within the BSA. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Song sparrow (Modesto population)	*Melospiza melodia*	--; --; CSC; --	Primarily breed within riparian habitats, wetlands, and coastal scrub. Typically nest within dense vegetation such as cattails, bulrush, tule, blackberry or willows. Exposed ground or leaf litter is primarily used for foraging.	A	Riparian and wetland habitats with dense vegetation are absent from the BSA. Suitable foraging habitat such as exposed ground or leaf litter is also largely absent from the BSA. Therefore, no suitable nesting or foraging habitat occurs within the BSA. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023)
Swainson's hawk	*Buteo swainsoni*	--; CT; --; --	Found in a variety of habitats including grasslands, agricultural areas, and open woodlands. Often nests peripherally to riparian systems or other aquatic habitats; nests in lone trees or groves of trees in agricultural fields, residential trees, or road break trees when aquatic habitat is absent. Prefers nest sites adjacent to open areas suitable for foraging. Trees greater than 30 feet in height are generally used for nesting.	HP	The BSA contains suitable foraging habitat for this species. Although no suitable nest trees are present within the BSA, suitable nest trees occur adjacent to the BSA within residential properties and along the nearby creek margin. If Swainson's hawks were to nest within these trees, the nest buffer would overlap with the BSA. Fifty-Three CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Tricolored blackbird	*Agelaius tricolor*	--; CT; --; -- (nesting colony)	Nests in dense blackberry, cattail, tule, bulrush, sedge, willow, or other dense vegetation within freshwater marshes. Nest colonies are often associated with dairy farms. Typically nests in large colonies of at least 50 pairs (up to thousands of individuals).	HP (foraging only)	The BSA contains suitable foraging habitat for this species within the annual grassland but suitable nesting habitat is absent. No blackberry, cattail, tule, bulrush or other dense marsh vegetation is present within the BSA. Thirteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT; CE; --; --	Occur in riparian habitats of low to mid-elevation forests. May also occur in dense wooded habitats near water, overgrown orchards, and dense streamside thickets. Typically nests within cottonwood (*Populus* spp.) or willow (*Salix* spp.) within large, multi-layered forests.	A	Dense riparian and forest habitat is absent from the BSA. No suitable nesting or foraging habitat is present in the BSA. The proposed Project will have no effect on this species. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
White-tailed kite	*Elanus leucurus*	--; CFP; --; --	Occurs in a variety of habitats including savanna, marshes, grassland, open areas of woodlands, partially cleared lands, and agriculture fields. Nests in trees often near aquatic habitats. Foraging occurs within un-grazed or lightly-grazed fields, agricultural areas, and open grasslands.	P	The BSA contains suitable nesting and foraging habitat for this species. Although no suitable nest trees are directly within the BSA, suitable nest trees occur within residential properties and along the nearby creek margin. If white-tailed kite were to nest within these trees, the nest buffer would overlap with the BSA. One white-tailed kite was observed within the BSA during the April 23, 2019 field survey. Two CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	--; --; CSC; --	Uncommon migrant of California but some breeding populations have been documented within the Central Valley. Typically nest in cattails, bulrush, reeds, and other dense marshy vegetation, always over water. Forage in grasslands, agricultural fields, and savanna habitats.	HP (foraging only)	The BSA contains suitable foraging habitat for this species within the annual grassland but suitable nesting habitat is absent. No cattails, bulrushes, reeds or other dense marsh vegetation is present within the BSA. One CNDDB occurrence is documented within 5 miles of the BSA (CNDDB 2023).
Other migratory birds and raptors	Not Applicable.	MBTA and §3503.5 Department of Fish and Wildlife Code	Occur and nest in a variety of habitats such as wetland, marsh, riverine, grassland, agriculture, forest, woodland, and suburban areas.	HP	The annual grassland within the BSA may provide suitable nesting and foraging habitat for a variety of migratory birds and raptors. Raptor species, if present, are most likely to nest in trees outside of the BSA but nesting buffers may overlap into the BSA. Some migratory bird species may nest within the annual grassland habitat. Several CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

Common Name	Scientific Name	Regulatory Status (Federal; State; Local; CNPS)	General Habitat Description	Habitat Present/ Absent	Rationale and Potential for Occurrence within the BSA
Mammals					
American badger	*Taxidea taxus*	--; --; CSC; --	Occur in a variety of open, dry habitats including grassland, agricultural fields, open forests, savanna, meadows and semi-desert habitats. Digs a large burrow with multiple chambers and a den. Friable soil is required for this species.	A	Although the BSA contains open grassland, the soil is very hard and compact, and unsuitable for this species. Additionally, no burrows were observed within the BSA during field surveys. Therefore, suitable habitat for this species is absent from the BSA. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).
Hoary bat	*Lasiurus cinereus*	--; --; --; CSA	Occur in a variety of habitats and migrates to winter and summer ranges across the state and Country. Typically roosts in dense foliage of large trees. During migration, may be found in unusual roosts such as abandoned woodpecker holes or buildings.	A	Large trees suitable for roosting are absent from the BSA. No other potential roost locations are present; suitable habitat is absent from the BSA. No CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2023).

BSA Potential:

A = Absent – no habitat present and no further surveys needed.

HP = Habitat Present-habitat is, or may be present.

P = Present – the species is present.

Federally Listed Species:

FE = federal endangered
FT = federal threatened

FPD = proposed for delisting
FPT= federal proposed threatened
FC = candidate

FD = delisted

California State Listed Species:

CFP = California fully protected
CC = California candidate

CE = California state endangered
CSA = California special animal

CSC = California species of special concern
CT = California state threatened

CNPS Rank Categories:

1A = plants presumed extinct in California
1B = plants rare, threatened, or endangered in California and elsewhere

2 = plants rare, threatened, or endangered in California, but common elsewhere
3 = plants about which we need more information

4 = plants of limited distribution

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CHAPTER 4: RESULTS – BIOLOGICAL RESOURCES, DISCUSSION OF IMPACTS AND MITIGATION

This section identifies species with the potential to occur, potential Project impacts, and avoidance and minimization measures. Impacts to habitat types are summarized below in **Table 2** and on **Figure 5**.

Table 2: Impact Acreage by Habitat Type

Biological Community	Permanent Impacted Acreage*	Temporary Impact Acreage*	Avoided Acreage*	Total Acreage within the BSA*
Annual Grassland	3.79	2.48	6.06	12.33
Depressional Seasonal Wetland	0.01	0.01	0.21	0.23
Vernal Pool	0.06	0.03	0.21	0.30
Riverine Perennial Marsh	—	—	0.12	0.12
Riverine Seasonal Marsh	—	—	<0.01	<0.01
Channel	—	—	0.01	0.01**
Creek	—	—	0.05	0.05**
Disturbed/Developed	0.80	0.74	5.61	7.15
Total	**4.66**	**3.26**	**12.27**	**20.16**

*Acreages calculated at 6 significant figures and subsequently rounded.

** Total includes 0.01 acre of Channel and 0.03 acre of Creek under the bridge structure at Bruceville Road, in addition to the summed total acreage of disturbed land accounting for the bridge structure.

Habitats and Natural Communities of Special Concern

Sensitive natural communities (SNC[s]), as defined by CDFW, present in the BSA include potential waters of the U.S., waters of the State, and northern hardpan vernal pools. These community types are important as further degradation and destruction threatens the communities as well as associated populations of dependent plant and wildlife species; additionally, further degradation and destruction significantly reduces their regional distribution and viability. These SNCs are described in further detail below.

Waters of the U.S., Waters of the State, and Northern Hardpan Vernal Pools

Wetlands and other waters of the U.S. are considered sensitive by federal and State agencies and occur within the BSA. Of these features, northern hardpan vernal pools are also a SNC as identified by CDFW.

The USACE determines the extent of their jurisdiction over wetlands and other waters of the U.S. on a case-by-case basis during the verification process. Areas deemed jurisdictional by the USACE are subject to the regulatory requirements of the Federal CWA, including permitting and mitigation associated with impacts to jurisdictional features.

An Aquatic Resources Delineation Report was prepared for all wetlands and other waters occurring within the BSA at the time the report was submitted (HELIX 2020). The aquatic resources delineation was submitted to the USACE with a request for a PJD on February 20, 2020. The USACE issued a PJD for the Project on May 12, 2020 concurring with aquatic resources mapped by HELIX (2020) (**Appendix F**).

Survey Results

A delineation of aquatic resources within the BSA was prepared by HELIX in June 2019. A total of 2.24 acres of aquatic resources were delineated within the BSA boundary at the time of the delineation. This acreage was comprised of 1.44 acres of vernal pools, 0.49 acre of depressional seasonal wetlands, 0.28 acre of riverine seasonal marsh and 0.03 acre of riverine perennial marsh. Following completion of the aquatic resources delineation, the trail alignment was revised to either avoid aquatic features completely or include entire features that may potentially be impacted. The coinciding revisions to the BSA resulting from the re-aligned trail, also included an expanded BSA to include the eastern portion of Bruceville Road. The revised BSA was surveyed on September 10, 2019 and a total of 2.37 acres of aquatic features were delineated within the BSA. This acreage is comprised of 1.44 acres of vernal pools, 0.52 acre of depressional seasonal wetland, 0.20 acre of riverine seasonal marsh, 0.15 acre of riverine perennial marsh, 0.01 acre of channel, and 0.05 acre of creek (HELIX 2020) (**Appendix F**).

During a subsequent biological survey of the revised trail alignment on March 15, 2023, a small portion (<0.01 acre) of riverine seasonal marsh was mapped along the border of the revised Segment 1 trail alignment. This feature was not included in previous delineations as it is located on private property that was not previously surveyed and will be avoided by the current trail alignment. Aquatic resources mapped within the current BSA are comprised of **0.23** acre of depressional seasonal wetland, **0.30** acre of vernal pool, **0.12** acre of riverine perennial marsh, <**0.01** acre of riverine seasonal marsh, **0.01** acre of channel, and **0.05** acre of creek (**Figure 4**).

Project Impacts

The Project has the potential to permanently impact a total of **0.07** acre of aquatic features delineated within the BSA (**Figure 5**). By implementing one or more of the avoidance measures discussed below, impacts to jurisdictional features will be minimized or avoided as a result of the Project. An additional 0.04 acre of aquatic resources may be subject to temporary construction-related impacts. However, aquatic resources temporarily impacted by project construction will be restored to pre-project contours/conditions following construction of the trail.

Project-related impacts to aquatic resources include impacts to a portion of one vernal pool and a portion of one depressional seasonal wetland. The portions of these features that will not be impacted are anticipated to continue to function as vernal pool/depressional seasonal wetland habitat respectively and are anticipated to continue to provide suitable habitat for special status plant and animal species. The microtopography of these two features was assessed by HELIX during the March 15, 2023 field survey and both features are concave with relatively little change in microtopography (no natural ridges, holes, large rocks, etc.). The vernal pool with proposed impacts appears to receive water from a swale outside and north of the BSA as well as direct precipitation, and the depressional seasonal wetland appears to receive water from direct precipitation. Because proposed impacts to these features are not planned in areas of direct water access/flow points, the hydrology is expected to continue to function as it currently does despite the proposed impacts to the features.

Avoidance and Minimization Measures

Because the Project will result in impacts to aquatic features, the project proponent would be required to obtain authorization under a CWA Section 404 permit for any impacts to wetlands or other waters

subject to USACE jurisdiction. Impacts to aquatic resources would also require a 401 Water Quality Certification from the RWQCB under Section 401 of the CWA. If applicable, any aquatic resources determined to not be subject to federal jurisdiction, but considered waters of the State, would require the filing of an application under the Procedures. Project-related impacts to aquatic resources may also require a Streambed Alteration Agreement with CDFW for impacts to resources subject to California Fish and Game Code Section 1602. Regulatory authorizations/permits will include terms and conditions to minimize impacts and to fully mitigate for any permanent impacts to wetlands and other waters.

The following additional measures would further contribute to avoidance of indirect impacts to the jurisdictional seasonal wetlands, marshes, and vernal pools:

MM-1. Exclusion fencing shall be installed along the outer edge of work along the northern edge of Segment 1 in the areas of the adjacent pond (located east of Mannington Street and north of Monterey Oaks Drive) and adjacent to Sacramento County's Lower Laguna Flood Control Project deed restricted parcels, the depressional seasonal wetland (located east of Lyndale Circle and north of Big Horn Boulevard), and along the vernal pool west of Bruceville Road (**Figure 5**).

MM-2. During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.

MM-3. Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any aquatic habitat

Compensatory Mitigation

Any compensatory mitigation for direct permanent impacts to jurisdictional waters would be addressed during the 404/401 permit process, as well as review by CDFW for impacts to resources subject to California Fish and Game Code Section 1602. It is anticipated that the Project proponent would consider the purchase of mitigation bank credits to mitigate for the fill of waters of the U.S. and/or waters of the State that may be required by the Project as described by the measures below.

MM-4. To mitigate for the permanent loss of waters of the U.S. resulting from development of the proposed Project, the City shall submit a compensatory mitigation plan to the USACE and RWQCB proposing in-kind replacement of impacted waters of the U.S. at a minimum 1:1 ratio, or as otherwise required by the USACE and RWQCB.

MM-5. Onsite vernal pool and depressional seasonal wetlands represent suitable habitat for special-status plant species and vernal pool branchiopods and invertebrates. If avoidance is not feasible, then impacts to suitable vernal pool habitat shall be mitigated at a 2:1 ratio (two acres mitigated for every acre lost) or as determined through consultation between USFWS and Caltrans. Mitigation shall be through preservation of suitable vernal pool habitat or purchase of vernal pool preservation credits at a USFWS-approved conservation bank prior to commencement of activities within suitable habitat. Final habitat acreages, mitigation ratios, and other project-specific compensatory requirements shall be determined through consultation between USFWS and Caltrans.

Cumulative Impacts

No cumulative impacts to potentially jurisdictional features will occur as a result of the Project due to the implementation of the avoidance and minimization measures discussed above.

Aquatic resources within the BSA currently are and historically have been subject to disturbance through unauthorized access and unofficial trails, foot traffic, and other human disturbance as evident in the field and through aerial imagery. With the implementation of the proposed Project in the BSA, this disturbance would be expected to be reduced as people may be more likely to remain on the paved trails and not encroach into adjacent open space areas and aquatic features. This would likely reduce unauthorized access, further reducing the potential for ongoing encroachment within these resources and reducing the potential for long-term cumulative impacts to vernal pool and wetland habitats.

Special-Status Plant Species

The following special-status plants have potential to occur within the BSA: Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Boggs lake hedge hyssop (*Gratiola heterosepala*), bristly sedge (*Carex comosa*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), dwarf downingia (*Downingia pusilla*), Ferris' goldfields (*Lasthenia ferrisiae*), Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*), hoary navarretia (*Navarretia eriocephala*), hogwallow starfish (*Hesperevax caulescens*), lenenere (*Legenere limosa*), marsh skullcap (*Scutellaria galericulata*), Mason's lilaeopsis (*Lilaeopsis masonii*), Northern California black walnut (*Juglans hindsii*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*), Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), saline clover (*Trifolium hydrophilum*), Sanford's arrowhead (*Sagittaria sanfordii*), side-flowering skullcap (*Scutellaria lateriflora*), Suisun Marsh aster (*Symphyotrichum lentum*), valley brodiaea (*Brodiaea rosea* ssp. *vallicola*), watershield (*Brasenia schreberi*), and wooly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*).

These plant species are of special concern based on federal, State, or local laws; and limited distributions. They could potentially occur within the BSA due to the presence of suitable habitat required by these special-status plants occurring within the BSA.

For the purpose of this report, special-status plants will be discussed under the following habitat types in which they would be expected to be found: annual grassland, vernal pools, depressional seasonal wetlands, and riverine seasonal and perennial marsh. No special-status plants have been observed within the BSA during the field surveys.

Annual Grassland Special-Status Plants

Survey Results

No special-status plants with potential to occur within the BSA are known to occur within annual grassland habitat. No special-status plants have been observed within the annual grassland during the field surveys.

Project Impacts

No special-status plant species would be expected to be impacted as a result of impacts to annual grassland habitats as no special-status plants were determined to potentially occur within the annual grassland habitat.

Avoidance and Minimization Efforts

Impacts to annual grassland would have no impact on special-status plants. Although the Project would result in the removal of approximately 3.79 acres of annual grassland and temporary impacts to approximately 2.48 acres, this is a common habitat type within the area and no special-status plants are known to occur or were observed during the field surveys within this vegetation community. Therefore, no avoidance measures are recommended.

Compensatory Mitigation

No compensatory mitigation will be required for special-status plants associated with impacts to the annual grassland habitat.

Cumulative Impacts

No cumulative impacts to special-status plants associated with annual grassland habitat will occur as a result of the Project.

Vernal Pool Special-Status Plants

Survey Results

The following special-status plants have potential to occur within vernal pools within the BSA: Ahart's dwarf rush, Boggs Lake hedge hyssop, dwarf downingia, Ferris' goldfields, hogwallow starfish, legenere, Parry's rough tarplant, and valley brodiaea (Calflora 2023). None of these species were observed during the field surveys; however, the site visits were not conducted during the typical identification period for all potentially occurring special-status plant species within the BSA.

Project Impacts

The BSA contains 0.30 acre of vernal pool habitat. As currently designed, the Project will permanently impact 0.06 acre of vernal pool habitat and will temporarily impact 0.03 acre of vernal pool habitat (**Figure 5**). Impacts could occur to special-status plant species, if present, through removal of habitat, removal of individual plants by construction personnel or equipment, and impacting occupied habitat through accidental discharge into the vernal pools during construction activities. By implementing one

or more of the measures discussed below, impacts to special-status vernal pool plants will be avoided or minimized as a result of the Project.

Avoidance and Minimization Efforts

Project implementation could result in permanent direct and temporary impacts to special-status vernal pool plants without implementation of avoidance and minimization measures. Impacts will be avoided or minimized with implementation of Caltrans' Standard Best Management Practices (BMPs) (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-6. A qualified USFWS and CDFW approved botanist shall conduct botanical surveys within the typical identification periods for all potentially occurring special-status plant species within suitable habitat prior to commencement of construction activities. For the special-status plant species that may potentially occur, two rounds of focused plant surveys would be necessary to survey within the typical identification periods for all potentially occurring special-status plants. The first round of surveys would be conducted in March or April and the second round of surveys would be conducted in May or June. If no special-status plants are observed, then a letter report documenting the results of the survey should be provided to the Project proponent for their records, and no additional measures with respect to special-status plants are recommended.

MM-7. If any special-status plants are found within the Project site, they should be avoided to the extent feasible. The plant locations would be identified on a map, and an agency-approved buffer should be established around the plants with high visibility construction fencing. The construction fencing would remain intact until construction is complete.

MM-8. If the special-status plants cannot be avoided, then a mitigation plan would be prepared in consultation with CDFW. CDFW would need to approve the mitigation plan prior to commencement of construction activities that would impact special-status plants.

Compensatory Mitigation

Compensatory mitigation may be required if the Project results in the removal of or impacts to special-status plants within the vernal pools. This can include purchase of approved bank credits for the affected species or Project-specific restoration.

Cumulative Impacts

Cumulative impacts to special-status plants may occur if these species are removed or impacted as a result of the Project. Nearly all special-status plants are of limited distribution and abundance, and plant species within vernal pools are likely even more threatened because of the limited abundance of vernal pools. Cumulative impacts as a result of the Project could occur through the removal of vernal pool habitat.

Aquatic resources within the BSA currently are and historically have been subject to disturbance through unauthorized access and unofficial trails, foot traffic, and other human disturbance as evident in the field and through aerial imagery. With the implementation of the proposed Project in the BSA, this

disturbance would be expected to be reduced as people may be more likely to remain on the paved trails and not encroach into adjacent open space areas and aquatic features. This would likely reduce unauthorized access, further reducing the potential for ongoing encroachment within these resources and reducing the potential for long-term cumulative impacts to vernal pool and wetland habitats and the special status plants species these habitats are suitable for supporting.

Depressional Seasonal Wetland Special-Status Plants

Survey Results

The following special-status plants have potential to occur within the depressional seasonal wetlands that occur within the BSA: Boggs Lake hedge hyssop, Delta tule pea, Ferris' goldfields, Heckard's pepper-grass, hoary navarretia, Mason's lilaeopsis, saline clover, Sanford's arrowhead, and wooly rose-mallow (Calflora 2023). None of these species were observed during field surveys.

Project Impacts

As currently designed, the Project will permanently impact 0.01 acre of depressional seasonal wetland habitat and will temporarily impact 0.01 acre of depressional seasonal wetland habitat (**Figure 5**). Direct impacts could occur to these special-status plant species, if present, through removal of habitat, removal of individual plants by construction personnel or equipment, and impacting occupied habitat through accidental discharge into the depressional seasonal wetlands and depressional seasonal marsh during construction activities. By implementing one or more of the avoidance measures discussed below, impacts to special-status plants will be avoided or minimized as a result of the Project.

Avoidance and Minimization Efforts

Project implementation could result in permanent direct impacts to special-status wetland plants without implementation of avoidance and minimization measures. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and **Avoidance and Minimization Measures MM-6 through MM-8** as discussed above.

Compensatory Mitigation

Compensatory mitigation may be required if the Project results in the removal of or impacts to the special-status plants within the depressional seasonal wetlands. This can include purchase of approved bank credits for the affected species or Project-specific restoration.

Cumulative Impacts

Cumulative impacts to special-status plants may occur if these species are removed or impacted as a result of the Project. Nearly all special-status plants are of limited distribution and abundance, and species within depressional seasonal wetlands are likely even more threatened because of the limited abundance of wetlands throughout the State. Cumulative impacts as a result of the Project could occur through the removal of depressional seasonal wetland and marsh habitat.

Aquatic resources within the BSA currently are and historically have been subject to disturbance through unauthorized access and unofficial trails, foot traffic, and other human disturbance as evident in the field and through aerial imagery. With the implementation of the proposed Project in the BSA, this disturbance would be expected to be reduced as people may be more likely to remain on the paved trails and not encroach into adjacent open space areas and aquatic features. This would likely reduce unauthorized access, further reducing the potential for ongoing encroachment within these resources and reducing the potential for long-term cumulative impacts to depressional seasonal wetland habitats and the special status plants species these habitats are suitable for supporting.

Riverine Seasonal and Perennial Marsh Special-Status Plants

Survey Results

The following special-status plants have potential to occur within the riverine seasonal and perennial marshes that occur within the BSA: Ahart's dwarf rush, bristle sedge, hogwallow starfish, Mason's lilaeopsis, pappose tarplant, Peruvian dodder, saline clover, Sanford's arrowhead, side-flowering skullcap, Suisun Marsh aster, watershield, and wooly rose-mallow (Calflora 2023). None of these species were observed during field surveys.

Project Impacts

As currently designed, no impacts are expected to occur to riverine seasonal and perennial marsh habitats (**Figure 5**). No special-status plants with potential to occur in these habitats will be impacted by the Project as these features will be avoided by Project design.

Avoidance and Minimization Efforts

No impacts are proposed to occur in the seasonal and perennial marsh habitats. Therefore, no avoidance measures for special-status plants that may occur in these habitats are recommended.

Compensatory Mitigation

No compensatory mitigation will be required for special-status plants associated with the seasonal and perennial marsh habitats.

Cumulative Impacts

No cumulative impacts to special-status plants associated with the seasonal and perennial marsh habitats will occur as a result of the Project.

Special-Status Animal Species

The following special-status wildlife species have the potential to occur within the BSA: California linderiella, hairy water flea, Ricksecker's water scavenger beetle, midvalley fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, giant garter snake, western pond turtle, western spadefoot, Swainson's hawk, tricolored blackbird, white-tailed kite, yellow-headed blackbird, and other migratory birds and raptors. These species are considered to be of special concern based on federal, State, or local laws; limited distributions; and/or the habitat requirements of special-status species occurring onsite.

White-tailed kite and western pond turtle were observed within the BSA during the April 23, 2019 field survey.

Vernal Pool Invertebrates

California linderiella is not a listed species but is identified on the CDFW Special Animal List. California linderiella is a relatively common branchiopod that occurs in vernal pools, swales, and ephemeral freshwater habitats. They can reach maturity in as little as 31 days and may live as long as 6 months (Eriksen and Belk 1999). There are 19 CNDDB occurrences documented within five miles of the BSA (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the BSA provide suitable habitat for this species (**Figure 4**).

Midvalley fairy shrimp is not a listed species but is identified on the CDFW Special Animal List. This species occurs in small, short-lived vernal pools and grass-bottomed swales ranging from 4 to 663 square feet (0.37 to 61.6 square meters) in area and averaging less than 4 inches (10 centimeters) in depth (Helm 1998). The midvalley fairy shrimp has been found on San Joaquin Silt Loam soils. They can reach maturity in as little as 14 days, but typically take 45 days, and can live as long as 5 months (Eriksen and Belk 1999). There are nine CNDDB occurrences documented within five miles of the BSA (CDFW 2023). The vernal pool within Segment 1 of the BSA provides suitable habitat for this species (**Figure 4**).

Vernal pool fairy shrimp are federally listed as Threatened. Vernal pool fairy shrimp are found in vernal pools, swales, depressional seasonal wetlands, and ephemeral freshwater habitats. These species are most commonly found in grassy or mud bottomed pools or basalt flow depression pools in unplowed grasslands. The pools vary in size from over 10 hectares to only 20 square meters. While vernal pool fairy shrimp may reach maturity in as little as 18 days, the typical maturation time is 41 days. They are relatively short-lived, generally only surviving for 10 weeks (Eriksen and Belk 1999). There are fifteen CNDDB occurrences documented within five miles of the BSA (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the BSA provide suitable habitat for this species (**Figure 4**).

Vernal pool tadpole shrimp are federally listed as Endangered. Vernal pool tadpole shrimp are found in natural and artificial seasonally ponded habitats including: vernal pools, swales, depressional seasonal wetlands, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetlands range from very small (2 square meters) to very large (356,253 square meters). Vernal pool tadpole shrimp generally reproduce in approximately 54 days and live up to 5 months (NatureServe 2019). There are 19 CNDDB occurrences documented for this species within five miles of the BSA (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the BSA provide suitable habitat for this species (**Figure 4**).

The hairy water flea is identified on the CDFW Special Animal List. This species typically occurs in vernal pools, depressional seasonal wetlands, and other seasonal freshwater habitats. It has adapted to the hydrological patterns of seasonal aquatic habitats, investing in short periods of growth and reproduction when pools are inundated, and entering dormancy to survive long periods when pools are dry (USFWS 2006). There are no CNDDB occurrences documented for this species within five miles of the BSA (CDFW 2023). The vernal pool and depressional seasonal wetlands within Segment 1 of the BSA provide suitable habitat for this species (**Figure 4**).

Ricksecker's water scavenger beetle is identified on the CDFW Special Animal list. This species is thought to occur in vernal pools, seeps, slow-moving streams, and ponds. Because very few specimens have been collected, information regarding the ecology of this species is relatively unknown. Specimens that have been collected have all occurred within the Central Valley and San Francisco Bay Area, and recent collections have occurred within a vernal pool near Sacramento (Short *et al.* 2017). There are no CNDDB occurrences within five miles of the BSA (CDFW 2023). The vernal pool within Segment 1 of the BSA provides suitable habitat for this species (**Figure 4**).

Survey Results

The vernal pool was dry at all field surveys except the March 15, 2023, survey. No focused survey was completed to determine the presence of vernal pool branchiopods within the pools as part of this NES, but suitable habitat is present within the BSA and presence of vernal pool branchiopods is assumed. No documented occurrences of vernal pool branchiopods or invertebrates occur within the BSA (CDFW 2023).

Project Impacts

As currently designed, the Project has the potential to directly impact vernal pool branchiopods and invertebrates through impact or removal of up to **0.01** acre of depressional seasonal wetland habitat and **0.06** acre of vernal pool habitat (**Figure 5**). The proposed Project may affect and is likely to adversely affect vernal pool fairy shrimp and vernal pool tadpole shrimp.

Permanent direct impacts could occur through ground disturbance of the soil, removal/fill of the wetlands through trail construction, or by altering the hydrology of the wetlands through trail construction thereby resulting in loss of occupied habitat or individuals. Individuals may be harmed, killed, or otherwise directly impacted based on assumed presence. In addition, temporary impacts are anticipated through temporary loss of 0.03 acre of vernal pool and 0.01 acre of depressional seasonal wetland. Indirect impacts could occur to vernal pools or wetlands and result from disturbance caused by the movement of equipment, workers, and trail-users, silt or other debris entering the features during construction, or the introduction of noxious/invasive weeds into the features that reduce the suitability to support vernal pool invertebrates.

Avoidance and Minimization Efforts

Mitigation Measure MM-5 provides mitigation measures to reduce impacts to vernal pool branchiopod and invertebrate species, along with suitable habitat through compensatory mitigation.

Compensatory Mitigation

Compensatory mitigation shall occur through the measures discussed above and may also occur through other measures as outlined by the governing agency such as purchase of habitat mitigation credits from a USFWS-approved mitigation bank.

Cumulative Impacts

Cumulative impacts to vernal pool branchiopods and invertebrates may occur as a result of the proposed Project. Cumulative impacts could occur to the branchiopod population through the direct

removal of habitat, or through indirect impacts to habitat. The loss of habitat for branchiopods could result in the decline of the species' population regionally.

Aquatic resources within the BSA currently are and historically have been subject to disturbance through unauthorized access and unofficial trails, foot traffic, and other human disturbance as evident in the field and through aerial imagery. With the implementation of the proposed Project in the BSA, this disturbance would be expected to be reduced as people may be more likely to remain on the paved trails and not encroach into adjacent open space areas and aquatic features. This would likely reduce unauthorized access, further reducing the potential for ongoing encroachment within these resources and reducing the potential for long-term cumulative impacts to vernal pool and seasonal wetland habitats and the special status branchiopod species these habitats are suitable for supporting.

Giant Garter Snake

The giant garter snake is a federal and state threatened species that inhabits sloughs, marshes, low-gradient streams, flooded rice fields, ponds, irrigation ditches, and adjacent upland habitats. This species forages primarily at the interface between open water and emergent aquatic vegetation and is most often found in habitats with slow flowing or standing water, permanent summer water, mud bottoms, earthen banks, and an abundance of prey such as small fish, frogs, and tadpoles. Giant garter snakes use upland habitat with open grassy or shrubby banks for basking and thermoregulation. They also use upland small mammal burrows and soil or rock crevices as nighttime refugia, daytime escape cover, and winter aestivation sites. Giant garter snakes typically emerge from winter retreats from late March to early April and can remain active through October. The timing of their annual activities is subject to varying seasonal weather conditions. While this species is strongly associated with aquatic habitats, individuals have been noted using burrows as much as 50 meters (164 feet) away from the water's edge (Wylie *et al.* 1997).

Survey Results

No giant garter snakes were observed during the field surveys. Some small mammal burrows were observed in the northern portion of Segment 1 but appeared occupied by California ground squirrel (*Otospermophilus beecheyi*) colonies. One occurrence record is documented from 1987 in the BSA within the northwest portion of Segment 1.

Although the BSA itself does not provide suitable aquatic habitat for giant garter snake, suitable aquatic habitat is present within Elk Grove Creek, inundated portions of Laguna Creek, a water quality pond, and associated marshy edges directly adjacent to the BSA. Some suitable burrows were observed within the BSA, and the BSA could provide suitable basking and upland habitat in areas near the adjacent aquatic habitat. This species is known to occur within an inundated area of Laguna Creek directly adjacent to the BSA. There are eight CNDDB occurrences documented within five miles of the BSA (CDFW 2023). The BSA is also located within a portion of a designated giant garter snake conservation area identified under the 1996 Biological Opinion issued by the USFWS for the Lower Laguna Flood Control Project (Service File 1-1-96-F-51). This area is currently covered by Deed Restrictions and occurs in portions of Segment 1 of the BSA (**Figure 4**).

Project Impacts

Suitable giant garter snake aquatic habitat is absent from the BSA but occurs directly adjacent to the BSA. As currently designed, the proposed Project has the potential to directly impact potential habitat for giant garter snake through impact or removal of up to **0.41** acre of annual grassland habitat located within a portion of the designated giant garter snake conservation area identified under the 1996 Biological Opinion issued by the USFWS for the Lower Laguna Flood Control Project (Service File 1-1-96-F-51) (**Figure 5**). Permanent direct impacts could occur through ground disturbance of the soil and trail construction. In addition, temporary impacts are anticipated to **0.23** acre of annual grassland habitat within the designated giant garter snake conservation area. Project-related indirect impacts could include vehicular mortality. The project may affect, and is likely to adversely affect giant garter snake.

Avoidance and Minimization Efforts

Impacts to giant garter snake will be avoided through implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-9. Ground-disturbing work shall take place during the GGS active season, if feasible, while snakes are more likely to avoid potential disturbances. The general active season for GGS is May 1 – October 1 but seasonal weather patterns should be considered during construction to provide flexibility.

MM-10. A USFWS-approved qualified biologist shall conduct a pre-construction survey for giant garter snake within 24 hours prior to the commencement of any construction activity within 200 feet potential giant garter snake aquatic habitat. The qualified biologist shall provide a field report of the survey results that shall be made available to USFWS within one (1) week of the completion of the survey.

The Project area shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred within suitable habitat areas.

MM-11. If giant garter snake or suitable burrows are observed within the project site during the pre-construction survey, the USFWS-approved biologist shall monitor all ground-disturbing activity within the suitable habitat area.

MM-12. A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of work and of the permitted disturbance zones. Supporting materials containing training information shall be prepared and distributed. Upon completion of training, all construction personnel shall sign a form stating that they have attended the training and understand all the measures. Proof of this instruction shall be kept on file with the Project proponent. The Project proponent shall provide the USFWS and CDFW with a copy of the training materials and copies of the signed forms indicating that training has been completed. If new construction personnel are added to the site, the crew foreman

shall ensure that the personnel receive the mandatory training before starting work. Copies of signed forms shall be submitted monthly as additional training occurs for new employees. The crew foreman is responsible for ensuring that construction personnel adhere to the guidelines and restrictions.

MM-13. Exclusion fencing shall be installed along the outer edge of work along the northern edge of Segment 1 in the areas of the adjacent pond (located east of Mannington Street and north of Monterey Oaks Drive) and adjacent to Sacramento County's Lower Laguna Flood Control Project deed restricted parcels, the depressional seasonal wetland (located east of Lyndale Circle and north of Big Horn Boulevard), and along the vernal pool west of Bruceville Road (**Figure 5**).

MM-14. A USFWS-approved biologist will inspect the exclusion fencing weekly, and the fencing will be maintained until the end of construction. If a GGS is found onsite during construction, all activities will stop until the GGS leaves the construction area on its own. The USFWS will be notified within 24 hours of any GGS observations. No handling or capture of a GGS will occur.

MM-15. During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.

MM-16. Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any aquatic habitat.

MM-17. The use of erosion control materials potentially harmful to GGS and other species such as mono-filament netting or similar material will be prohibited. Tightly woven fiber netting or similar material will be used to ensure GGS do not get trapped or entangled. To avoid entrapment of GGS, trenches will be covered overnight or escape ramps installed. Any pipes or hoses will be sealed with duct tape or equally effective means so that no GGS can enter them. Alternatively, pipes and hoses may be stored at least 3 feet above ground or within a part of the staging area surrounded by exclusionary fence; and

MM-18. After completion of construction activities, the applicant shall remove all stockpiled material and construction debris and, wherever feasible, restore disturbed areas to pre-Project conditions.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to giant garter snake will occur as a result of the Project due to the implementation of the avoidance measures discussed above.

Western Pond Turtle

The western pond turtle is designated as a Species of Special Concern by CDFW and is also proposed as threatened under the FESA. The western pond turtle was proposed for listing by the USFWS on October 3, 2023, and the listing proposal is under public comment review until December 4, 2023. This species occurs in a variety of aquatic habitats such as ponds, creeks, ditches, lakes, and marshes. Areas with abundant vegetation and rocky or muddy substrate are preferred; and exposed banks or other basking areas, such as logs or cattail mats, are required. Western pond turtles prefer to overwinter in areas with moderate woody vegetation and leaf litter and are unlikely to use annual grasslands (Reese and Hartwell 1997b, Pilliod *et al.* 2013, and Rathbun *et al.* 2002). Eggs are laid between May and August and hatch in approximately 80 days. Hatchlings often stay in or around the nest through the winter. Nests are generally found within 30 meters (100 feet) of water in areas with little vegetative cover and good sun exposure (Rathbun *et al*. 2002). Little is known about dispersal patterns of western pond turtles, but genetic analysis shows most movement is along drainages (Riensche *et al.* 2013).

Survey Results

No western pond turtles were observed within the BSA during the field surveys. However, one western pond turtle was observed within Laguna Creek adjacent to the BSA on April 11, 2019. No documented CNDDB occurrences for western pond turtle occur within the BSA. While the BSA itself does not provide suitable aquatic habitat, this species is known to occur within inundated portions of Laguna Creek directly adjacent to the BSA. Although it is unlikely that this species would move beyond the upper banks of the inundated creek and into the annual grassland habitat within the BSA, overland movement or basking could occur within the BSA. Nesting is not expected to occur within the BSA based on the nature of the dense annual grassland habitat, the absence of areas with good sun exposure, and the presence of current walking trails/disturbance within areas of little vegetation cover. Five occurrences are documented within five miles of the BSA (CDFW 2023).

Project Impacts

While suitable aquatic habitat is absent from the BSA, suitable aquatic habitat occurs directly adjacent to the BSA in the adjacent pond, Laguna Creek, and Elk Grove Creek. As currently designed, the proposed Project has the potential to directly impact potential upland habitat for western pond turtle through impact or removal of up to **0.41** acre of annual grassland habitat located near Laguna Creek and the pond (**Figure 5**). Permanent direct impacts could occur through ground disturbance of the soil and trail construction. In addition, temporary impacts are anticipated to **0.23** acre of annual grassland habitat within this area. Project-related indirect impacts could include vehicular mortality. The project may affect, and is likely to adversely affect western pond turtle.

Avoidance and Minimization Efforts

Impacts to western pond turtle will be avoided through implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance

Manual (Caltrans 2013), and the following measures: Ground-disturbing work shall take place during the western pond turtle active season, if feasible, while turtles are more likely to avoid potential disturbances. The general active season for western pond turtle is March 1 – November 1 but seasonal weather patterns should be considered during construction to provide flexibility.
Measures 10 – 18 above for giant garter snake shall be applied to western pond turtle.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to western pond turtle will occur as a result of the Project due to the implementation of the avoidance measures discussed above.

Western Spadefoot

Western spadefoot is designated as a Species of Special Concern by CDFW. This species inhabits open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, foothills, and river floodplains from 0 to 3,937 feet (0 to 1,200 meters) above MSL. The western spadefoot spends the majority of the year in underground burrows and emerges to breed in vernal pools and other seasonal pools following heavy rains; generally, October to May. Eggs typically hatch within 3-4 days and tadpoles transform in 4-11 weeks (Nafis 2023).

Survey Results

No western spadefoot were observed during the field surveys. However, species-specific surveys were not conducted to determine the presence of western spadefoot within aquatic habitat during the appropriate survey time (generally peak rainy season, about February to March). The vernal pools and seasonal wetlands within the BSA provide suitable breeding habitat for western spadefoot. Although the soil within the BSA is too hard and compact to provide suitable burrow sites, soils outside of the BSA may be suitable for western spadefoot and the species may disperse into the BSA during the breeding season to utilize the aquatic habitat. No CNDDB occurrences are documented within five miles of the BSA (CDFW 2023).

Project Impacts

As currently designed, the Project has the potential to directly impact aquatic breeding habitat through permanent impact or removal of up to **0.01** acre of depressional seasonal wetland habitat (**Figure 5**). Permanent direct impacts could occur through ground disturbance of the soil, removal/fill of aquatic habitat through trail construction, or altering hydrology of the wetlands through trail construction thereby resulting in loss of breeding habitat or individuals.

Avoidance and Minimization Efforts

Project implementation could result in temporary and permanent direct or indirect impacts to western spadefoot without implementation of avoidance and minimization measures. Impacts will be avoided or

minimized with implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-19. If possible, construction shall occur outside of the breeding and dispersal season (October through May) for western spadefoot to avoid impacts to breeding populations and aquatic metamorphs. It should be noted, this work window conflicts with the GGS and western pond turtle active season work windows as described in MM-9 and MM-19. See MM-22 below for guidance if work occurs within the western spadefoot breeding and dispersal season.

MM-20. If construction occurs within the breeding and dispersal season, a pre-construction survey shall be conducted by a qualified biologist within the appropriate survey window to determine the presence of western spadefoot within the project site:

If western spadefoot are observed within the project site, then additional measures such as a qualified biologist conducting a pre-construction survey within 24 hours prior to commencement of construction activities, conducting a pre-construction worker awareness training, and being present to monitor construction during initial vegetation clearing and ground disturbance shall be required.
If no western spadefoot are observed within the project site, then a letter report regarding survey results shall be made available to the Project proponent and no additional avoidance and mitigation measures for the species are recommended.

MM-21. If a western spadefoot is observed within the construction zone, then all work shall immediately halt in the vicinity of the animal and the animal will be allowed to leave the area on its own will. If the animal is in immediate danger and needs to be relocated, then it shall be safely relocated outside of the construction zone within suitable habitat and at a safe distance from all construction related activities. No work shall resume until the animal is outside of the Project area and construction zone.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

Cumulative impacts to western spadefoot may occur as a result of the proposed Project. Cumulative impacts could occur to the western spadefoot population through the direct removal of breeding habitat, or through indirect impacts to breeding habitat. The loss of breeding habitat for western spadefoot could result in the decline of the species' population regionally.

Swainson's Hawk

Swainson's hawk is a long-distance migrant with nesting grounds in western North America. It is listed as Threatened by CDFW. Swainson's hawks arrive in the Central Valley between March and early April to establish breeding territories. Breeding occurs from late March to late August, peaking in late May through July (Zeiner *et al.* 1990). In the Central Valley, Swainson's hawk nest in isolated trees, small groves, or large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in suburban areas as well. Valley oak, Fremont cottonwood (*Populus fremontii*), and large willow trees (*Salix* spp.), ranging in height from 30 to 82 feet,

are the most commonly used nest trees in the Central Valley (County of Sacramento 2007). Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, grasslands, irrigated pastures, alfalfa and other low-growing row crops. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and De Water 1994).

Survey Results

No Swainson's hawks were observed during the field surveys. The trees within the BSA are too small to provide suitable nesting habitat but nesting may occur in trees adjacent to the BSA within adjacent residential properties or along Laguna Creek outside of the BSA. There are 53 documented CNDDB records for this species within five miles of the BSA. One occurrence dated 1990 occurs within Segment 2 of the BSA and the most recent nest documented within ten miles of the BSA is dated 2011 (CDFW 2023).

Project Impacts

Nesting habitat is absent from the BSA; however, suitable nesting habitat is present adjacent to the BSA and Swainson's hawks may have undocumented nesting locations in the vicinity of the BSA. In addition, the annual grassland habitat within the BSA may provide potential foraging habitat for this species. Temporary impacts from construction associated with the proposed Project could disturb nesting Swainson's hawk if they were to occur adjacent to the BSA during construction. The proposed Project would permanently impact **3.79** acres and temporarily impact **2.48** acres of potential foraging habitat for Swainson's hawk through the removal and alteration of annual grassland habitat (**Figure 5**). With the implementation of Avoidance and Minimization Efforts discussed below, Project impacts to Swainson's hawk are not anticipated to occur.

Avoidance and Minimization Efforts

Project implementation could result in temporary and permanent direct or indirect impacts to Swainson's hawk without implementation of avoidance and minimization measures. Impacts will be avoided or minimized with implementation of the City's Swainson's Hawk Code (Chapter 16.130; City of Elk Grove 2023), Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-22. A qualified biologist shall conduct an environmental awareness training for all construction personnel. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.

MM-23. Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.5 mile of the Project Site where legally permitted to directly

access; all suitable nest trees within 0.5 mile of the project site shall be surveyed using binoculars from legally accessible areas. If no active Swainson's hawk nests are identified within 0.5 mile of the BSA within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the Project proponent and the CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.

MM-24. If active Swainson's hawk nests are found within 0.5 mile of the Project site, then a qualified biologist shall contact the Project proponent and CDFW within one day following the pre-construction survey to report the findings. Should an active nest be present within 0.5 mile of Project site, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing should be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.5 mile of the nest. Should the qualified biologist determine that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until the CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the Project proponent and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are recommended.

MM-25. The Project proponent shall comply with the City of Elk Grove Swainson's Hawk Code (Chapter 16.130) to mitigate for the loss of foraging habitat.

Compensatory Mitigation

The Project proponent will comply with the City of Elk Grove Swainson's Hawk Code (Chapter 16.130) to mitigate for the loss of foraging habitat.

Cumulative Impacts

No cumulative impacts to Swainson's hawk will occur as a result of the Project due to the implementation of the avoidance measures discussed above. Large swaths of annual grassland exist within the vicinity of the Project and the annual grassland that is anticipated to be removed comprises an estimated 2% of the total annual grassland habitat within the vicinity of the BSA.

Tricolored Blackbird

The tricolored blackbird is listed as Threatened by CDFW. The tricolored blackbird is a colonial species that typically breeds in freshwater marshes of cattail (*Typha* sp.), bulrush (*Schoenoplectiella* sp. and *Isolepis* sp.), sedge (*Carex* sp.), and non-native vegetation including Himalayan blackberry (*Rubus armeniacus*). Nests occur in large colonies of up to thousands of individuals (NatureServe 2019). Nesting locations must be large enough to support a minimum colony of approximately fifty pairs (Zeiner *et al.* 1990). This species forages in grasslands and agricultural fields with low-growing vegetation (Shuford and Gardladi 2008).

Survey Results

No tricolored blackbirds were observed within the BSA during the field surveys. The BSA does not provide suitable breeding habitat for this species and the annual grassland provides marginal foraging habitat for this species. Tricolored blackbirds prefer to forage in grasslands with low-growing vegetation; the annual grassland within the BSA is comprised of tall, dense vegetation. Thirteen occurrences of this species are documented in the CNDDB within five miles of the BSA (CDFW 2023).

Project Impacts

There would be permanent and temporary loss of marginally suitable foraging habitat (**3.79** acres of permanent impact and **2.48** acres of temporary impact to annual grassland) for tricolored blackbird associated with development of the Project (**Figure 5**). Removal of suitable foraging habitat would have a minimal effect on this species if tricolored blackbirds were currently utilizing portions of the BSA for foraging. However, no tricolored blackbirds were observed during field surveys and foraging habitat is not regulated under CESA. Breeding habitat is absent from the BSA and therefore nesting habitat will not be impacted. Because breeding habitat is absent and only marginally suitable foraging habitat is present in the BSA, tricolored blackbird has a low potential to occur.

Avoidance and Minimization Efforts

Project implementation would have no impact on breeding habitat since none exists within the BSA. Although the Project would result in the permanent removal of **3.79** acres and temporary impacts to **2.48** acres of potential foraging habitat, foraging habitat is not regulated under CESA. Implementation of the Project is not expected to result in take and a 2081 ITP would not be required. Therefore, no avoidance measures are recommended for this species.

Compensatory Mitigation

No compensatory mitigation will be required since foraging habitat is not regulated under CESA and nesting habitat is absent from the BSA.

Cumulative Impacts

No cumulative impacts to tricolored blackbird will occur as a result of the Project due to the minimal percentage of marginal foraging habitat that is proposed to be removed within the annual grassland. Large swaths of annual grassland exist within the vicinity of the Project and the annual grassland that is anticipated to be removed comprises an estimated 2% of the total annual grassland habitat within the BSA.

White-Tailed Kite

The white-tailed kite is listed as a Fully Protected species by CDFW. White-tailed kite is a year-round resident in coastal and valley lowlands in California. They breed from February to October, peaking from May to August (Zeiner *et al.* 1990). This species nests near the top of dense oaks, willows, or other large trees, especially near aquatic habitats. They typically forage within un-grazed or lightly-grazed fields, agricultural areas, and open grasslands.

Survey Results

One white-tailed kite was observed foraging within the BSA during the April 23, 2019 field survey. The annual grassland provides suitable foraging habitat but nesting habitat for this species is absent from the BSA. However, nesting may occur in adjacent trees within residential properties or along Laguna Creek outside of the BSA. Two occurrences are documented within five miles of the BSA (CDFW 2023).

Project Impacts

There would be permanent and temporary loss of suitable foraging habitat (**3.79** acres of permanent impact and **2.48** acres of temporary impact to annual grassland) for white-tailed kite associated with development of the Project (**Figure 5**). Removal of suitable foraging habitat would have a minimal effect on this species given the amount of suitable foraging habitat within the vicinity of the Project site. Additionally, foraging habitat is not regulated by CDFW. Minor temporary disturbances to foraging habitat could result from Project construction but white-tailed kite would likely still utilize the Project site for foraging outside of the active construction areas. Temporary disturbances to nesting white-tailed kites could occur during construction should white-tailed kite nest within or adjacent to the BSA.

Avoidance and Minimization Efforts

Project implementation could result in temporary and permanent direct or indirect impacts to white-tailed kite without implementation of avoidance and minimization measures. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-26. A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training for active white-tailed kite nests should be similar to the training described for Swainson's hawk. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.

MM-27. A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities if anticipated to commence during the nesting season (between February 15 and August 31). An additional pre-construction survey shall be conducted within 72 hours of commencement of ground-disturbing activities. During the surveys, suitable nest trees adjacent to the project site shall be surveyed using binoculars from legally accessible areas. If the pre-construction survey shows that there is no evidence of active nests, then a letter report should be submitted to the Project proponent and the CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, then an additional pre-construction survey is recommended.

MM-28. If any active white-tailed kite nests are identified during the pre-construction survey within the project site, then a qualified biologist shall establish 250-foot buffer zone around the nests. The biologist shall mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. If a 250-foot buffer is not feasible, then the qualified biologist may

reduce the buffer through consultation with the CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and that no forced fledging occurs. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report would be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.

Compensatory Mitigation

No compensatory mitigation will be required since foraging habitat is not regulated by CDFW and nesting habitat is absent from the BSA.

Cumulative Impacts

No cumulative impacts to white-tailed kite will occur as a result of the Project due to the minimal percentage of foraging habitat that is proposed to be removed within the annual grassland. Large swaths of annual grassland exist within the vicinity of the Project and the annual grassland that is anticipated to be removed comprises an estimated 2% of the total annual grassland habitat within the BSA.

Yellow-Headed Blackbird

The yellow-headed blackbird is designated as a California Species of Special Concern. It is an uncommon California migrant, summers from April to early October, and breeds from mid-April to late July (Twedt and Crawford 1995). This species typically nests in cattails, bulrush, reeds, and other tall emergent vegetation, always over water. They forage in grasslands, agricultural fields, and savanna habitats. The yellow-headed blackbird is generally a scarce breeder in the Sacramento Valley and is only known to nest within large marshes of wildlife refuges (Shuford and Gardladi 2008). One occurrence is documented within five miles of the BSA and is dated 1899 (CDFW 2023).

Survey Results

No yellow-headed blackbirds were observed during the field surveys. Foraging habitat is present within the BSA in the annual grassland habitat, but suitable nesting habitat is absent.

Project Impacts

There would be a permanent and temporary loss of suitable foraging habitat (**3.79** acres of permanent impact and **2.48** acres of temporary impact to annual grassland) for yellow-headed blackbird associated with development of the Project (**Figure 5**). Removal of suitable foraging habitat would have a minimal effect on this species given the amount of suitable foraging habitat within the vicinity of the BSA. Additionally, foraging habitat is not regulated by CDFW and no known recent occurrences or nesting sites occur within the vicinity of the BSA.

Avoidance and Minimization Efforts

Project implementation would have no impact on breeding habitat since none exists within the BSA. Although the Project would result in the permanent removal of up to **3.79** acres of potential foraging

habitat, foraging habitat is not regulated by CDFW. Therefore, no avoidance measures are recommended.

Compensatory Mitigation

No compensatory mitigation will be required since foraging habitat is not regulated by CDFW and nesting habitat is absent from the BSA.

Cumulative Impacts

No cumulative impacts to yellow-headed blackbird will occur as a result of the Project due to the minimal percentage of marginal foraging habitat that is proposed to be removed within the annual grassland. Large swaths of annual grassland exist within the vicinity of the Project and the annual grassland that is anticipated to be removed comprises an estimated 2% of the total annual grassland habitat within the BSA.

Migratory Birds and Raptors

Migratory birds are protected under the MBTA of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All raptors, including common species not considered special-status, are protected under the California Fish and Wildlife Code (Section 3503.5). Removal or destruction of an active raptor nest is considered a violation of this Fish and Wildlife Code.

Survey Results

No active nests were observed within the BSA during the field surveys. The annual grassland and trees within the BSA provide nesting habitat for migratory birds and raptors during the nesting season (typically February 15 through August 31), and foraging habitat year-round. Large trees and structures adjacent to the BSA also provide nesting habitat, and a colony of nesting barn swallows (*Hirundo rustica*) was observed nesting under the western overpass at Bruceville Road.

Project Impacts

Project implementation could result in permanent and temporary direct impacts to nesting migratory birds and raptors. Permanent direct impacts could occur to ground-nesting birds through destruction of nests if present within the BSA during construction. Permanent direct impacts could also occur through removal of trees should any active nests be present during tree removals. Temporary direct impacts could occur through disturbance of nesting migratory birds and birds of prey during construction; this can include temporary direct impacts to nesting birds that may be nesting in trees adjacent to the BSA. Disturbance that results in nest abandonment could result in mortality of chicks or eggs.

Avoidance and Minimization Efforts

Project implementation could result in permanent direct impacts to nesting birds and raptors without implementation of avoidance and minimization measures. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures:

MM-29. If construction is expected to occur during the nesting season (February 15 through August 31), then a qualified biologist shall conduct an environmental awareness training for all construction personnel. The training shall include information pertaining to the potential for active nests to occur within the project and procedures to follow in the event that an active nest is found during construction.

MM-30. If feasible, then construction and any tree/shrub removal should be completed between September 1 and February 14, outside of the nesting season.

MM-31. If construction begins during the nesting season (February 15 through August 31), then a pre-construction nesting bird survey shall be conducted within 14 days prior to the commencement of construction activities and vegetation removal. If the pre-construction survey results in no evidence of active nests, then a letter report should be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If active nests are located within or directly adjacent to the BSA then the following shall occur:

a. If any active nests are located, then a qualified biologist shall establish an appropriate species-specific buffer zone (generally a 75-foot standard buffer for most songbirds, a 300-foot standard buffer for most raptors, and up to a buffer of 1,320-2,640 feet for Swainson's hawk) around the nests. The qualified biologist shall mark the buffer zone with high visible flagging or pin flags and maintain the buffer zone until all construction has been competed, until the end of the breeding season, or until the young have successfully fledged and/or the nest is no longer active. A qualified biologist should monitor active nests weekly during construction to evaluate potential nesting disturbance caused by construction activities. If establishing the typical buffer zone is impractical, then the qualified biologist may reduce the buffer depending on the species, and daily monitoring is also recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied or that it has been determined that nesting activity is not negatively affected by adjacent Project construction activities. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and the CDFW for their records.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to migratory birds and raptors will occur as a result of the Project.

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CHAPTER 5: CONCLUSIONS AND REGULATORY DETERMINATIONS

Federal Endangered Species Act Consultation Summary

An official USFWS species list was obtained on July 13, 2023. The IPaC Report for the *Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project, Sacramento County, CA* is included in **Appendix C**.

The federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp have the potential to occur within the vernal pool and depressional seasonal wetlands. The federally listed giant garter snake has the potential to occur in the Laguna Creek and Elk Grove corridors adjacent to the BSA.

As currently designed, permanent direct and temporary direct impacts to potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp will occur through ground disturbance of the soil within vernal pool and depressional seasonal wetland habitat, removal/fill of the depressional seasonal wetlands through trail construction, or altering hydrology of the vernal pool or depressional seasonal wetlands through trail construction thereby resulting in loss of occupied habitat or individuals. Indirect impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp could result from disturbance caused by the movement of equipment, workers, and trail-users, silt or other debris entering the pools/wetlands during construction, or the introduction of noxious/invasive weeds into the vernal pools or depressional seasonal wetlands that reduce the suitability of the pools to support vernal pool invertebrates.

The proposed Project may affect and is likely to adversely affect vernal pool fairy shrimp and vernal pool tadpole shrimp.

Suitable giant garter snake aquatic habitat is absent from the BSA but occurs directly adjacent to the BSA. As currently designed, the Project has the potential to directly impact giant garter snake through direct impacts to potential habitat within a portion of the designated giant garter snake conservation area identified under the 1996 Biological Opinion issued by the USFWS for the Lower Laguna Flood Control Project (Service File 1-1-96-F-51). Permanent direct impacts could occur through ground disturbance and trail construction, thereby resulting in potential loss of habitat or individuals. Indirect impacts could occur from disturbance caused by the movement of equipment, workers, and trail-users, or silt or other debris entering the site during construction.

The proposed Project may affect and is likely to adversely affect giant garter snake.

Suitable western pond turtle aquatic habitat is absent from the BSA but occurs directly adjacent to the BSA. As currently designed, the proposed Project has the potential to directly impact western pond turtle through direct impacts to potential upland habitat. Permanent direct impacts could occur through ground disturbance and trail construction, thereby resulting in potential loss of habitat or individuals. Indirect impacts could occur from disturbance caused by the movement of equipment, workers, and trail-users, or silt or other debris entering the site during construction.

The proposed Project may affect, and is likely to adversely affect western pond turtle.

The City, in coordination with Caltrans, intends to initiate Formal Consultation with the USFWS under Section 7 of the FESA for the proposed Project.

Federal Fisheries and Essential Fish Habitat Consultation Summary

An official species list was obtained on July 28, 2023, from the NOAA Fisheries West Coast Region, Species Directory, *ESA Threatened & Endangere*d *Marine species* (see **Appendix D**). No designated critical habitat for federally listed fish species or EFH occurs within the BSA. Neither EFH consultation nor Section 7 consultation for federally listed fish species has been initiated as of the date of preparation of this report and based on the analysis presented within this NES, neither consultation is required. The Proposed Project will not affect suitable aquatic habitat and will result in No Effect to federally endangered NMFS resources.

California Endangered Species Act Consultation Summary

The State Fully Protected white-tailed kite was observed within the BSA during the April 23, 2019 field survey. The State threatened giant garter snake, the State threatened tricolored blackbird, and the State threatened Swainson's hawk have the potential to occur within the BSA. The following State Species of Special Concern have the potential to occur within the BSA: yellow-headed blackbird and protected nesting migratory birds. No take of State-listed species is anticipated for the Project with implementation of avoidance and minimization measures suggested in this NES. Because no take of State-listed species is anticipated, no ITP will be required for the Project.

Wetlands and Other Waters Coordination Summary

A total of **0.72** acre of aquatic resources are delineated within the BSA. This acreage is comprised of **0.23** acre of depressional seasonal wetland, **0.30** acre of vernal pool, **0.12** acre of riverine perennial marsh, <**0.01** acre of riverine perennial marsh, **0.01** acre of channel, and **0.05** acre of creek.

Should the Project result in impacts to any waters of the U.S., Section 404 Authorization would be required by the USACE, and a 401 Water Quality Certification by the RWQCB would be required. Impacts to aquatic resources subject to California Fish and Game Code Section 1602 would require a Streambed Alteration Agreement with CDFW.

If aquatic features are determined not to be subject to federal jurisdiction, and constitute waters of the State, an application under the Procedures would be required to be submitted to the RWQCB.

Invasive Plant Species

Several invasive plant species and noxious weeds are present within the annual grassland habitat within the BSA. Invasive plant and noxious weed species present in the BSA are identified in **Appendix E**. The following measures addressing invasive species abatement and control should be incorporated into the final Project design and contract specifications:

MM-32. After construction, temporary impact areas shall be revegetated with plant species native to the vicinity and approved by a Caltrans biologist. The plant mix will avoid the use of any species listed in the Cal-IPC Invasive Plant Inventory with a high or moderate rating.

Nesting Bird Habitat

The BSA contains suitable nesting habitat for a variety of bird species protected by the federal MBTA and by California Fish and Game Codes. As such, focused nesting bird surveys are proposed if construction is expected to be initiated and occur within the typical nesting season (February 15 through

August 31). Nest buffers would be established for any active nests found during pre-construction surveys. If necessary, nest monitoring may occur for construction that is required to occur within species-specific nest buffers.

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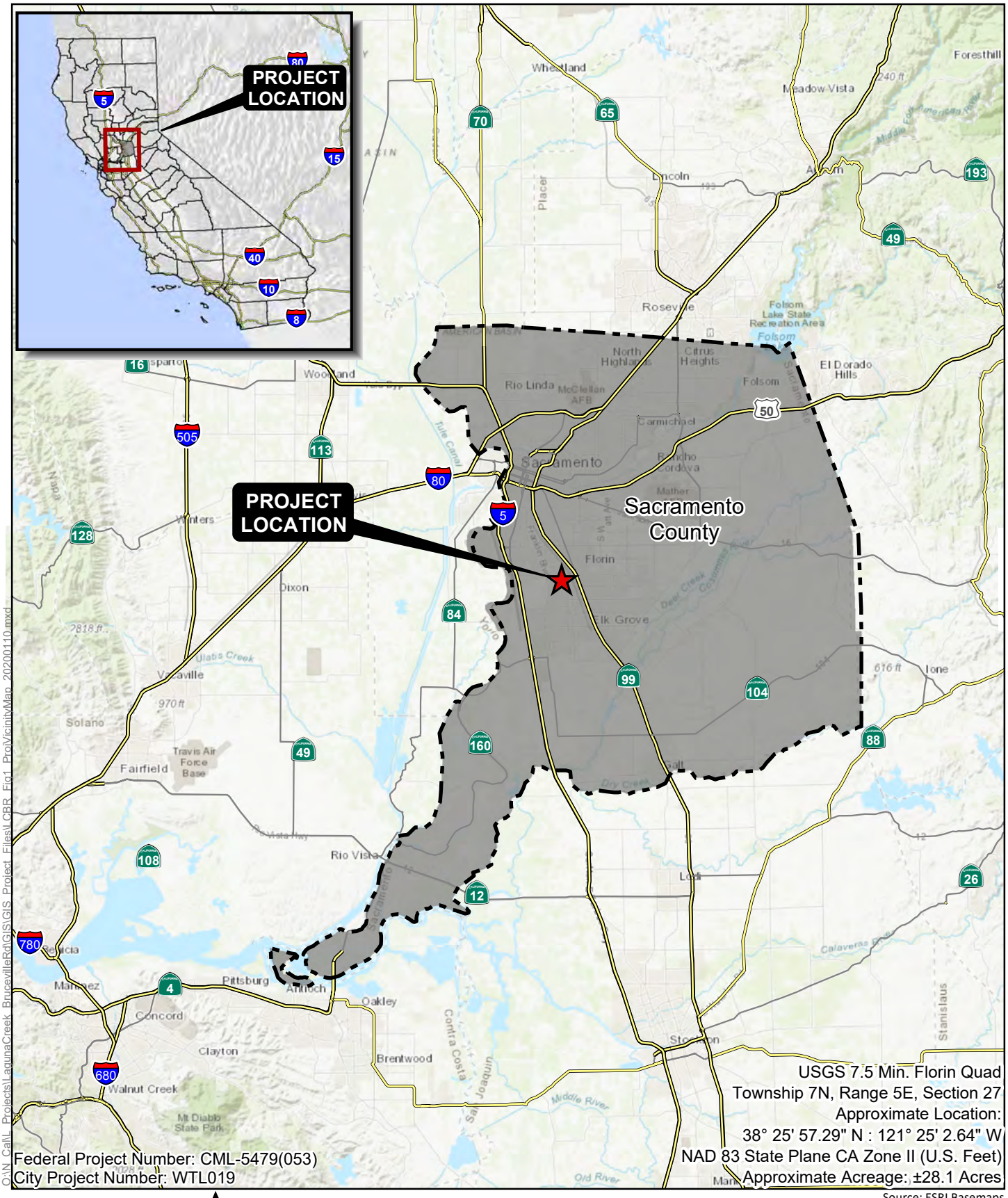
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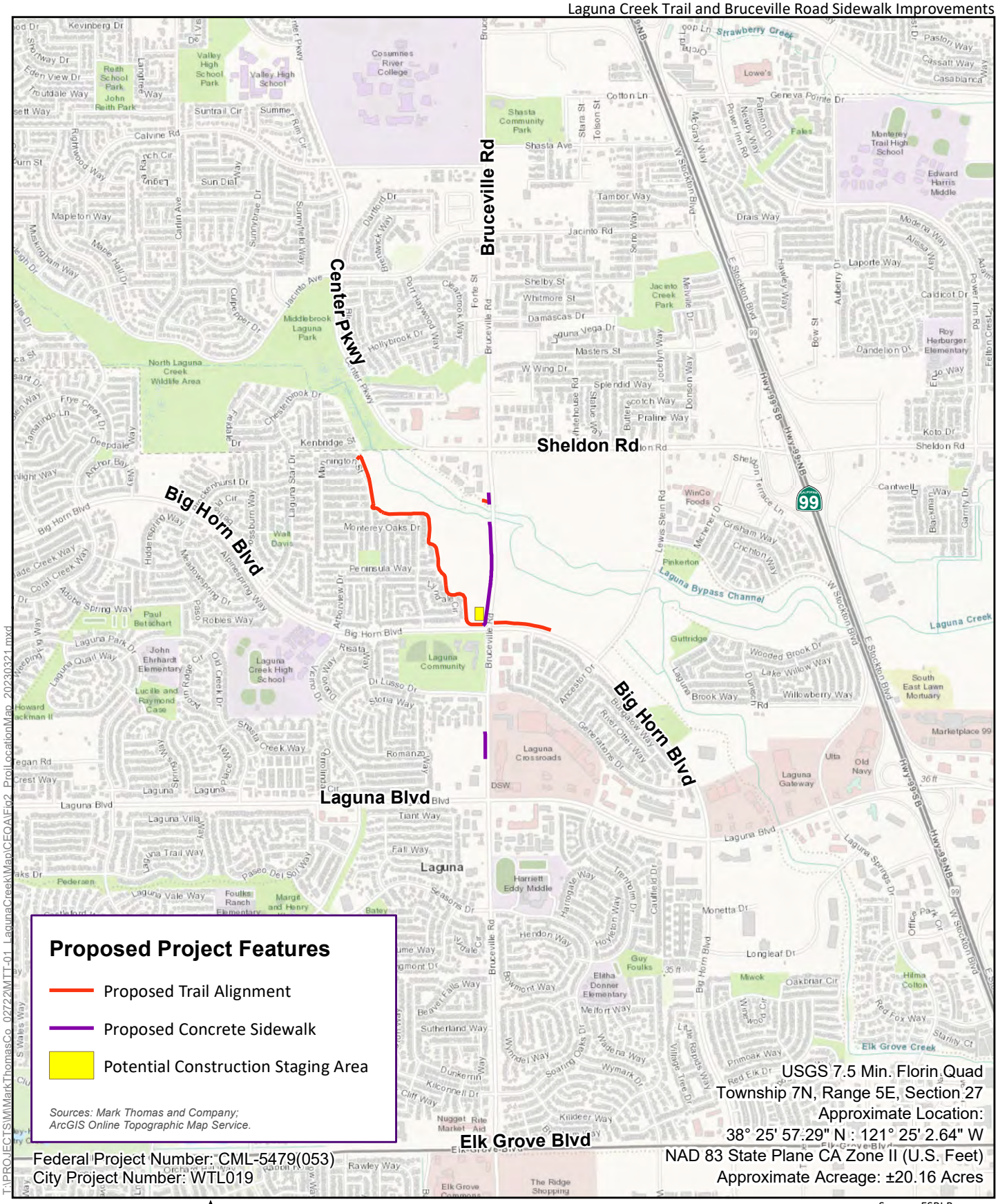
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HELIX Environmental Planning

Project Vicinity Map

Figure 1



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HELIX Environmental Planning

Project Location Map

Figure 2



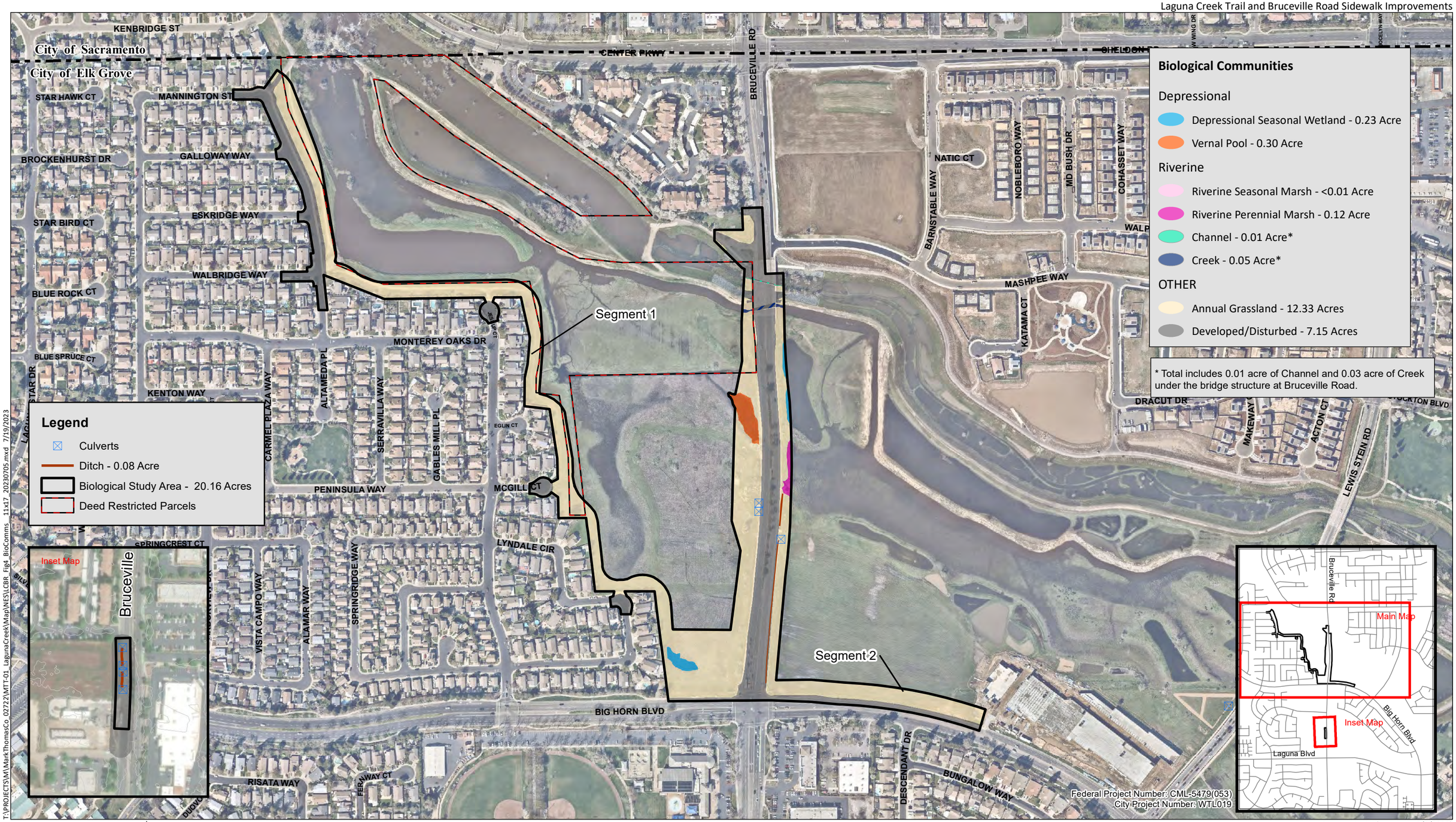
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Source: Aerial Imagery (Nearmap 3/15/2023)

HELIX Environmental Planning

Proposed Project

Figure 3



0 400 Feet

Source: Aerial (Nearmap, 3/5/2023)

HELIX Environmental Planning

Biological Communities

Figure 4

Biological Community	Permanently Impacted Acreage*	Temporary Impacted Acreage*	Avoided Acreage*	Total Acres within the Project Site*
Annual Grassland	3.79	2.48	6.06	12.33
Depressional Seasonal Wetland	0.01	0.01	0.21	0.23
Vernal Pool	0.06	0.03	0.21	0.30
Riverine Perennial Marsh	-	-	0.12	0.12
Riverine Seasonal Marsh	-	-	<0.01	<0.01
Channel	-	-	0.01	0.01**
Creek	-	-	0.05	0.05**
Disturbed/Developed	0.80	0.74	5.61	7.15
TOTAL ACRES	**4.66**	**3.26**	**12.27**	**20.16**

*Acreages calculated at 6 significant figures and subsequently rounded.
** Total includes 0.01 acre of Channel and 0.03 acre of Creek under the bridge structure at Bruceville Road, in addition to the summed total acreage of disturbed land accounting for the bridge structure.

Legend
- Culverts
- ESA Fencing
- Limit of Disturbance
- Deed Restricted Parcels
- Biological Study Area - 20.16 Acres

Other Features
- Ditch - 0.08 Acre

City of Sacramento
City of Elk Grove
Segment 1
Segment 2
Inset Map
Main Map
Federal Project Number: CML-5479(053)
City Project Number: WTL019

0 400 Feet

Source: Aerial (Nearmap, 3/5/2023)

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HELIX Environmental Planning

Proposed Project and Impacts to Biological Communities

Figure 5

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APPENDIX A: CDFW LIST OF SPECIAL-STATUS SPECIES

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Florin (3812144) OR Sacramento East (3812154) OR Sacramento West (3812155) OR Carmichael (3812153) OR Elk Grove (3812143) OR Galt (3812133) OR Bruceville (3812134) OR Courtland (3812135) OR Clarksburg (3812145))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G1	S1	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. ferrisiae Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Cicindela hirticollis abrupta Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Cuscuta obtusiflora var. glandulosa Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Dumontia oregonensis hairy water flea	ICBRA23010	None	None	G1G3	S1	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Elderberry Savanna Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S2	
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Hypomesus transpacificus Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Juncus leiospermus var. ahartii Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasthenia chrysantha alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G4G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Oncorhynchus tshawytscha pop. 11 chinook salmon - Central Valley spring-run ESU	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
Oncorhynchus tshawytscha pop. 7 chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5T1Q	S2	
Orcuttia tenuis slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
Orcuttia viscida Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Pogonichthys macrolepidotus Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Scutellaria galericulata marsh skullcap	PDLAM1U0J0	None	None	G5	S2	2B.2
Scutellaria lateriflora side-flowering skullcap	PDLAM1U0Q0	None	None	G5	S2	2B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 74

APPENDIX B: CNPS LIST OF SPECIAL-STATUS SPECIES

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

2 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B:3:4**] Fed List is one of [**FE:FT:FC**] **and** State List is one of [**CE:CT:CR:CC**] , 9-Quad include [**3812144:3812154:3812155:3812153:3812143:3812133:3812134:3812135:3812145**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © Rick York and CNPS

Showing 1 to 2 of 2 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 13 July 2023].

APPENDIX C: USFWS LIST OF SPECIAL-STATUS SPECIES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: July 13, 2023
Project Code: 2023-0104318
Project Name: Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

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

To Whom It May Concern:

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the 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

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

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

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0104318
Project Name: Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project
Project Type: Mixed-Use Construction
Project Description: Sidewalk and trail improvements project.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.4343037,-121.41765717210956,14z



Counties: Sacramento County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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.

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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.

REPTILES

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	
Vernal Pool Tadpole Shrimp *Lepidurus packardi*	Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	

CRITICAL HABITATS

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

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

IPAC USER CONTACT INFORMATION

Agency:	HELIX Environmental Planning Inc.
Name:	Christine Heckler
Address:	1677 Eureka Road Suite 100
Address Line 2:	Suite 100
City:	Roseville
State:	CA
Zip:	95661
Email	christineh@helixepi.com
Phone:	9164351202

APPENDIX D: NOAA FISHERIES SPECIAL-STATUS ANADROMOUS FISH SPECIES

Species Directory

All Species | ESA Threatened & Endangered | Marine Mammals | Sustainable Seafood

ESA Threatened & Endangered

NOAA Fisheries has jurisdiction over 163 endangered and threatened marine species (79 endangered; 84 threatened), including 65 foreign species (39 endangered; 26 threatened).

Additional species are currently under review or have been proposed for Endangered Species Act listing: 2 petitioned species awaiting a 90-day finding, 13 candidate species for ESA listing, 3 proposed species for ESA listing.

In the table below, the Region column shows if the species can be found in a NOAA Fisheries region. If the species occurs only in areas beyond the U.S. exclusive economic zone and territorial waters, the region is labeled as Foreign.

Species Name

Species Category

Fish & Sharks

Protected Status

All

Region

West Coast

Display

25 Display All

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Bocaccio (Protected) *Sebastes paucispinis* Also Known As Bocaccio, Rock Salmon, Salmon Rockfish, Pacific	SPECIES CATEGORY Fish - Groundfish - Protected Fish	Puget Sound/Georgia Basin DPS	ESA Endangered	2010	Final	Final	Alaska West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Red Snapper, Pacific Snapper, Oregon Red Snapper, Oregon Snapper, Longjaw, Merou, Jack, Snapper, Rock Cod, Rockfish							
Chinook Salmon (Protected) *Oncorhynchus tshawytscha*	**SPECIES CATEGORY** Fish - Protected Fish	Sacramento River winter-run	ESA Endangered	1994	Final	Final	Alaska West Coast
		Upper Columbia River spring-run	ESA Endangered	1999	Final	Final	Alaska West Coast
		California coastal	ESA Threatened	1999	Final	Final	Alaska West Coast
		Central Valley spring-run	ESA Threatened	1999	Final	Final	Alaska West Coast
		Lower Columbia River	ESA Threatened	1999	Final	Final	Alaska West Coast
		Puget Sound	ESA Threatened	1999	Final	Final	Alaska West Coast
		Snake River fall-run	ESA Threatened	1992	Final	Final	Alaska West Coast
		Snake River spring/summer-run	ESA Threatened	1992	Final	Final	Alaska West Coast
		Upper Willamette River	ESA Threatened	2005	Final	Final	Alaska West Coast
		Central Valley spring-run in the San Joaquin River XN	ESA Experimental Population	—	—	—	Alaska West Coast
		Upper Columbia River spring-run in the Okanogan River subbasin XN	ESA Experimental Population	—	—	—	Alaska West Coast
		Upper Klamath-Trinity River	ESA Candidate	—	—	—	Alaska West Coast
		Oregon Coast	ESA Candidate	—	—	—	West Coast
		Southern Oregon and Northern California Coastal	ESA Candidate	—	—	—	West Coast
Chum Salmon (Protected)	**SPECIES CATEGORY**	Columbia River ESU	ESA Threatened	1999	Final	Final	Alaska West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Oncorhynchus keta	Fish - Protected Fish	Hood Canal summer-run ESU	ESA Threatened	1999	Final	Final	Alaska West Coast
Coho Salmon (Protected) *Oncorhynchus kisutch*	**SPECIES CATEGORY** Fish - Protected Fish	Central California Coast ESU	ESA Endangered	2005; 1996 (original)	Final	Final	Alaska West Coast
		Lower Columbia River ESU	ESA Threatened	2005	Final	Final	Alaska West Coast
		Oregon coast ESU	ESA Threatened	2008	Final	Final	Alaska West Coast
		Southern Oregon & Northern California coasts ESU	ESA Threatened	1997	Final	Final	Alaska West Coast
Eulachon *Thaleichthys pacificus*	**SPECIES CATEGORY** Fish - Protected Fish	Southern DPS	ESA Threatened	2010	Final	Final	Alaska West Coast
Green Sturgeon *Acipenser medirostris*	**SPECIES CATEGORY** Fish - Protected Fish	Southern DPS	ESA Threatened	2006	Final	Final	Alaska West Coast
Oceanic Whitetip Shark *Carcharhinus longimanus*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Species	ESA Threatened	2018	Under Development	Not Prudent	New England/Mid-Atlantic Pacific Islands Southeast West Coast
Scalloped Hammerhead Shark *Sphyrna lewini*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Eastern Pacific DPS	ESA Endangered	2014	—	No	West Coast
		Eastern Atlantic DPS	ESA Endangered - Foreign	2014	—	—	Foreign
		Central & Southwest Atlantic DPS	ESA Threatened	2014	—	No	Southeast
		Indo-West Pacific DPS	ESA Threatened	2014	—	No	Pacific Islands

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Sockeye Salmon (Protected) *Oncorhynchus nerka*	**SPECIES CATEGORY** Fish - Protected Fish	Snake River ESU	ESA Endangered	1991	Final	Final	Alaska West Coast
		Ozette Lake ESU	ESA Threatened	1999	Final	Final	Alaska West Coast
Steelhead Trout *Oncorhynchus mykiss*	**SPECIES CATEGORY** Fish - Protected Fish	Southern California DPS	ESA Endangered	1997	Final	Final	Alaska West Coast
		California Central Valley DPS	ESA Threatened	1998	Final	Final	Alaska West Coast
		Central California Coast DPS	ESA Threatened	1997	Final	Final	Alaska West Coast
		Lower Columbia River DPS	ESA Threatened	1998	Final	Final	Alaska West Coast
		Middle Columbia River	ESA Threatened	1999	Final	Final	Alaska West Coast
		Northern California DPS	ESA Threatened	2000	Final	Final	Alaska West Coast
		Puget Sound DPS	ESA Threatened	2007	Final	Final	Alaska West Coast
		Snake River Basin DPS	ESA Threatened	2006	Final	Final	Alaska West Coast
		South-Central California Coast DPS	ESA Threatened	1997	Final	Final	Alaska West Coast
		Upper Columbia River DPS	ESA Threatened	2006; 1997 (original)	Final	Final	Alaska West Coast
		Upper Willamette River DPS	ESA Threatened	1999	Final	Final	Alaska West Coast
		Middle Columbia River XN	ESA Experimental Population	—	—	—	Alaska West Coast
		Olympic Peninsula DPS	ESA Candidate	—	—	—	West Coast
Yelloweye Rockfish *Sebastes ruberrimus*	**SPECIES CATEGORY** Fish - Protected Fish	Puget Sound/ Georgia Basin DPS	ESA Threatened	2010	Final	Final	Alaska West Coast

APPENDIX E: PLANT AND WILDLIFE SPECIES OBSERVED

Appendix E
Plant Species Observed

Family	Scientific Name	Common Name	Habitat*
Boraginaceae	*Amsinckia menziesii*	Fiddleneck	N
Poaceae	*Avena barbata*	Slender oat	NN/I
Poaceae	*Avena fatua*	Wild oat	NN/I
Asteraceae	*Baccharis pilularis* ssp. *consanguinea*	Coyote brush	N
Poaceae	*Bromus diandrus*	Ripgut brome	NN/I
Poaceae	*Bromus hordeaceus*	Soft brome	NN/I
Asteraceae	*Carduus pycnocephalus*	Italian thistle	NN/I
Cyperaceae	*Carex barbarae*	Santa Barbara sedge	N
Cyperaceae	*Carex* sp.	Sedge	N
Asteraceae	*Centaurea solstitialis*	Yellow star thistle	NN/I
Convolvulaceae	*Convolvulus arvensis*	Field bindweed	NN
Crassulaceae	*Crassula aquatica*	Aquatic pygmy weed	N
Cyperaceae	*Cyperus* sp.	Nut sedge (leaves only)	N
Asteraceae	*Dittrichia graveolens*	Stinkwort	NN/I
Campanulaceae	*Downingia bicornuta* var. *picta*	Doublehorn calicoflower	N
Cyperaceae	*Eleocharis macrostachya*	Spike rush	N
Poaceae	*Elymus caput-medusae*	Medusa head	NN/I
Poaceae	*Elymus triticoides*	Beardless wild-rye	N
Onagraceae	*Epilobium brachycarpum*	Autumn fireweed	N
Asteraceae	*Erigeron* sp.	Fleabane daisy (leaves only)	N
Geraniaceae	*Erodium botrys*	Big heron bill	NN
Geraniaceae	*Erodium cicutarium*	Coastal heron's bill	NN/I
Apiaceae	*Eryngium* sp.	Coyote thistle (leaves only)	NN
Papaveraceae	*Eschscholzia californica*	California poppy	N
Poaceae	*Festuca bromoides*	Brome fescue	NN
Poaceae	*Festuca myuros*	Rattail fescue	NN/I
Poaceae	*Festuca perennis*	Italian rye grass	NN/I
Apiaceae	*Foeniculum vulgare*	Fennel	NN/I
Rubiaceae	*Galium aparine*	Cleavers	N
Geraniaceae	*Geranium dissectum*	Cut leaved geranium	NN/I
Plantaginaceae	*Gratiola ebracteata*	Common hdege hyssop	N
Poaceae	*Hordeum brachyantherum* ssp. *brachyantherum*	Meadow barley	N
Poaceae	*Hordeum marinum* ssp. *gussoneanum*	Mediterranean barley	NN/I
Poaceae	*Hordeum murinum* ssp. *leporinum*	Foxtail barley	NN
Asteraceae	*Hypochaeris glabra*	Smooth cat's ear	NN/I
Juglandaceae	*Juglans hindsii*	NorCal Black Walnut	N

Appendix E
Plant Species Observed

Family	Scientific Name	Common Name	Habitat*
Juncaceae	*Juncus bufonius*	Toad rush	N
Juncaceae	*Juncus cf. balticus* ssp. *ater*	Baltic rush	N
Juncaceae	*Juncus* sp.	Rush (leaves only)	N
Asteraceae	*Lactuca serriola*	Prickly lettuce	NN
Asteraceae	*Lasthenia fremontii*	Fremont's goldfields	N
Asteraceae	*Lasthenia glaberrima*	Smooth goldfields	N
Onagraceae	*Ludwigia* sp.	Water primrose	NN
Fabaceae	*Lupinus bicolor*	Miniature lupine	N
Fabaceae	*Lupinus nanus*	Sky lupine	N
Myrsinaceae	*Lysimachia arvensis*	Scarlet pimpernel	NN
Lythraceae	*Lythrum hyssopifolia*	Hyssop loosestrife	NN/I
Malvaceae	*Malva* sp.	Mallow	NN
Fabaceae	*Medicago* cf. *polymorpha*	California burclover	NN/I
Lamiaceae	*Mentha pulegium*	Pennyroyal	NN/I
Polemoniaceae	*Navarretia leucocephala* ssp. *leucocephala*	White headed navarretia	N
Oxalidaceae	*Oxalis pes-caprae*	Bermuda buttercup	NN/I
Poaceae	*Phalaris paradoxa*	Hood canary grass	NN
Arecaceae	*Phoenix canariensis*	Canary Island palm	NN
Verbenaceae	*Phyla nodiflora*	Common lippia	N
Boraginaceae	*Plagiobothrys stipitatus* var. *micranthus*	Vernal pool allocarya	N
Poaceae	*Plantago lanceolata*	Ribwort	NN/I
Poaceae	*Poa annua*	Annual bluegrass	NN/I
Lamiaceae	*Pogogyne ziziphoroides*	Sacramento beardstyle	N
Poaceae	*Polypogon monspeliensis*	Rabiitfoot grass	NN/I
Salicaceae	*Populus alba*	White poplar	NN/I
Asteraceae	*Psilocarphus brevissimus var. brevissimus*	wooly heads	N
Asteraceae	*Psilocarphus oregonus*	Oregon wooly heads	N
Ranunculaceae	*Ranunculus bonariensis* var. *trisepalus*	Vernal pool buttercup	N
Brassicaceae	*Raphanus* sp.	Radish	NN
Brassicaceae	*Rorippa curvisiliqua*	Curvepod yellow cress	N
Rosaceae	*Rosa* cf. *rubiginosa*	Sweet-brier	NN
Polygonaceae	*Rubus armeniacus*	Himalayan blackberry	NN/I
Polygonaceae	*Rumex pulcher*	Fiddle dock	NN
Polygonaceae	*Rumex* sp.	Dock	NN
Salicaceae	*Salix exigua*	Narrow leaved willow	N
Salicaceae	*Salix goodingii*	Gooding's willow	N
Chenopodiaceae	*Salsola tragus*	Tumbleweed	NN/I
Cyperaceae	*Schoenoplectus acutus* var. *occidentalis*	Tule	N

Appendix E
Plant Species Observed

Family	Scientific Name	Common Name	Habitat*
Asteraceae	*Senecio vulgaris*	Common groundsel	NN
Asteraceae	*Silybum marianum*	Milk thistle	NN/I
Asteraceae	*Sonchus asper*	Spiny sow thistle	NN
Asteraceae	*Stipa pulchra*	Purple needle grass	N
Asteraceae	*Tragopogon porrifolius*	Purple salsify	NN
Zygophyllaceae	*Tribulus terrestris*	Puncture vine	NN/I
Fabaceae	*Trifolium fragiferum*	Strawberry clover	NN
Fabaceae	*Trifolium hirtum*	Rose clover	NN/I
Themidaceae	*Triteleia hyacinthina*	Wild hyacinth	N
Themidaceae	*Triteleia laxa*	Ithuriel's spear	N
Poaceae	*Triticum aestivum*	Wheat	NN
Typhaceae	*Typha* cf. *angustifolia*	Narrow leaved cattail	NN
Plantaginaceae	*Veronica peregrina* ssp. *xalapensis*	Purslane speedwell	N
Fabaceae	*Vicia sativa*	Spring vetch	NN
Fabaceae	*Vicia villosa*	Hairy vetch	NN
Apocynaceae	*Vinca major*	Greater periwinkle	NN/I
Asteraceae	*Xanthium strumarium*	Cocklebur	N

* (NN) Non-native, (N) Native, (I) Invasive

Appendix E
Wildlife Species Observed

Taxon		Scientific Name	Common Name
Order	**Family**		
VERTEBRATES			
Amphibians and Reptiles			
Anura	Hylidae	*Hyliola sierra*	Sierran treefrog
Anura	Ranidae	*Lithobates catesbeianus*	American bullfrog
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	Nothwestern fence lizard
Squamata	Colubridae	*Thamnophis sirtalis fitchi*	Valley garter snake
Birds			
Passeriformes	Icteridaes	*Agelaius phoeniceus*	Red-winged blackbird
Anseriformes	Anatidae	*Anas cyanoptera*	Cinnamon teal
Anseriformes	Anatidae	*Anas platyrhynchos*	Mallard
Pelecaniformes	Ardeidae	*Ardea alba*	Great egret
Pelecaniformes	Ardeidae	*Ardea herodias*	Great blue heron
Anseriformes	Anatidae	*Branta canadensis*	Canada goose
Accipitriformes	Accipitridae	*Buteo jamaicensis*	Red-tailed hawk
Caprimulgiformes	Trochilidae	*Calypte anna*	Anna's hummingbird
Cathartiformes	Cathartidae	*Cathartes aura*	Turkey vulture
Charadriiformes	Charadriidae	*Charadrius vociferus*	Killdeer
Columbiformes	Columbidae	*Columba livia*	Rock pigeon
Passeriformes	Corvidae	*Corvus brachyrhynchos*	American crow
Falconiformes	Falconidae	*Falco sparverius*	American kestrel
Passeriformes	Hirundinidae	*Hirundo rustica*	Barn swallow
Pelecaniformes	Ardeidae	*Nycticorax*	Black-crowned night heron
Anseriformes	Anatidae	*Mareca strepera*	Gadwall
Passeriformes	Mimidae	*Mimus polyglottos*	Northern mockingbird
Galliformes	Phasianidae	*Phasianus colchicus*	Ring-necked pheasant
Passeriformes	Tyrannidae	*Sayornis nigricans*	Black phoebe
Passeriformes	Parulidae	*Setophaga coronata*	Yellow-rumped warbler
Passeriformes	Turdidae	*Turdus migratorius*	American robin
Passeriformes	Tyrannidae	*Tyrannus verticalis*	Western kingbird
Columbiformes	Columbidae	*Zenaida macroura*	Mourning dove
Mammals			
Lagomorpha	Leporidae	*Lepus californicus*	Black-tailed jackrabbit
Lagomorpha	Leporidae	Sylvilagus audubonii	Desert cottontail

APPENDIX F: PRELIMINARY JURISDICTIONAL DETERMINATION

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

May 12, 2020

Regulatory Division (SPK-2020-00158)

City of Elk Grove
Attn: Mr. Michael Karoly
8401 Laguna Palms Way
Elk Grove, California 95758
MKaroly@elkgrovecity.org

Dear Mr. Karoly:

We are responding to your May 4, 2020, request for a preliminary jurisdictional determination (JD) for the Laguna Creek Trail and Bruceville Road Sidewalk Improvements site. The approximately 30.8-acre project site is located by Sheldon Road to the north, Big Horn Road to the south, Mannington Street/Monterey Oaks/Lyndale Court to the west, and Lewis Stein Road to the east, at Latitude 38.43251°, Longitude -121.41634°, in the City of Elk Grove, Sacramento County, California.

Based on available information, we concur with your aquatic resources delineation for the site as depicted on the enclosed January 3, 2020, *Figure 3, Aquatic Resources delineation map, Laguna Creek Trail and Bruceville Road Sidewalk Improvements Sacramento County, California*, drawing prepared by Helix Environmental Planning (Enclosure 1). The approximately 0.52 acre of seasonal wetland, 1.44 acres of vernal pool, 0.20 acre of seasonal marsh, 0.15 acre of perennial marsh, and 0.06 acre of open waters present within the survey area are potential jurisdictional aquatic resources (waters of the United States) regulated under Section 404 of the Clean Water Act.

At your request, we have completed a preliminary JD for the site. Enclosed find a copy of the *Preliminary Jurisdictional Determination Form* (Enclosure 2). Please sign and return the completed form to this office, at the address listed below, within 30 days of the date of this letter. If you do not return the signed form within 30 days, we will presume concurrence and finalize the preliminary jurisdictional determination.

You may request an approved JD for this site at any time prior to starting work within waters, including after a permit decision is made.

We recommend you provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This preliminary jurisdictional determination has been conducted to identify the potential limits of wetlands and other aquatic resources at the project site which may be subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act and/or Section 9 and 10 of the Rivers and Harbors Act. A *Notification of Appeal Process and Request for Appeal Form* is enclosed to notify you of your options with this determination (Enclosure 3).

We appreciate feedback, especially about interactions with our staff and processes.

Please refer to identification number SPK-2020-00158 in any correspondence concerning this project. If you have any questions, please contact Peck Ha by email at *Peck.Ha@usace.army.mil*, or telephone at (916) 557-6617. For program information or to complete our Customer Survey, visit our website at *www.spk.usace.army.mil/Missions/Regulatory.aspx*.

Sincerely,



Peck Ha
Senior Project Manager
CA Delta Section

Enclosures

cc:
Ms. Kyrsten Shields, Helix Environmental Planning, *KyrstenS@HelixEpi.com*
Ms. Thaleena Bhattal, Caltrans District 3, *Thaleena.Bhattal@DOT.ca.gov*
Ms. Jordan Hensley, CA Regional Water Quality Control Board,
Jordan.Hensley@Waterboards.ca.gov

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: City of Elk Grove Attn: Mr. Michael Karoly	File No.: SPK-2020-00158	Date: May 8, 2020

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
→	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at *http://www.usace.army.mil/cecw/pages/reg_materials.aspx* or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Peck Ha
Senior Project Manager
U.S. Army Corps of Engineers
Phone: (916) 557-6617, FAX: (916) 557-7803
Email: *Peck.Ha@usace.army.mil*

If you only have questions regarding the appeal process you may also contact:

Thomas J. Cavanaugh
Administrative Appeal Review Officer
U.S. Army Corps of Engineers
South Pacific Division1455 Market Street, 2052B
San Francisco, California 94103-1399
Phone: (415) 503-6574, FAX: (415) 503-6646
Email: *Thomas.J.Cavanaugh@usace.army.mil*

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: May 08, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: City of Elk Grove Attn: Mr. Michael Karoly

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Laguna Creek Trail and Bruceville Road Sidewalk Improvements, SPK-2020-00158

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: CA County/parish/borough: Sacramento County City: Elk Grove

Center coordinates of site (lat/long in degree decimal format):

Lat.: 38.4325137121523 Long.: -121.416349411011

Universal Transverse Mercator: 638223.76, 4254992.65

Name of nearest waterbody: Strawberry Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: May 08,2020

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
DSW1	38.43570500	-121.41727700	0.008	Wetlands	Section 404
DSW2	38.43562100	-121.41635400	0.027	Wetlands	Section 404
DSW3	38.43450600	-121.41731800	0.047	Wetlands	Section 404
DSW4	38.43399800	-121.41727100	0.050	Wetlands	Section 404
DSW5	38.43207900	-121.41589300	0.140	Wetlands	Section 404
DSW6	38.43198200	-121.41513800	0.066	Wetlands	Section 404
DSW7	38.43133100	-121.41451600	0.002	Wetlands	Section 404
DSW8	38.43106400	-121.41362800	0.050	Wetlands	Section 404
DSW9	38.43110300	-121.41884400	0.130	Wetlands	Section 404

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
VP10	38.43399800	-121.41475000	0.091	Wetlands	Section 404
VP11	38.43388069	-121.41786309	0.301	Wetlands	Section 404
VP12	38.43246855	-121.41602492	0.409	Wetlands	Section 404
VP13	38.43173295	-121.41474580	0.149	Wetlands	Section 404
VP14	38.43146044	-121.41439729	0.385	Wetlands	Section 404
VP15	38.43123739	-121.41394546	0.102	Wetlands	Section 404
RSM16	38.43454800	-121.42062400	0.010	Wetlands	Section 404
RSM17	38.43437300	-121.41981200	0.189	Wetlands	Section 404
RPM18	38.43324000	-121.41726800	0.122	Wetlands	Section 404
RPM19	38.43294500	-121.40933900	0.029	Wetlands	Section 404
Creek20	38.43512300	-121.41757400	0.052	Wetlands	Section 404
Channel21	38.43540500	-121.41760800	0.014	Wetlands	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit

(and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: January 3, 2020, Figure 3, Aquatic Resources delineation map, Laguna Creek Trail and Bruceville Road Sidewalk Improvements Sacramento County, California,.

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report. Rationale: .

☐ Data sheets prepared by the Corps: .

☐ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: Florin.

☐ Natural Resources Conservation Service Soil Survey. Citation: .

☐ National wetlands inventory map(s). Cite name: .

☐ State/local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: . (National Geodetic Vertical Datum of 1929)

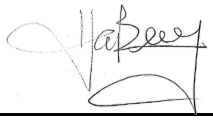
☒ Photographs: ☒ Aerial (Name & Date): Google Earth

Or ☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter: .

☐ Other information (please specify): .

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.



May 13, 2020

Signature and date of
Regulatory staff member
completing PJD

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Aquatic Resources

Classification		Acres*	Length (Feet)
Depressional Wetlands			
	Seasonal Wetland	0.52	n/a
	Vernal Pool	1.44	n/a
Riverine Wetlands			
	Seasonal Marsh	0.20	679.0
	Perennial Marsh	0.15	195.1
Other Waters			
	Channel	0.01	167.2
	Creek	0.05	178.3
TOTAL:		**2.37**	**1219.6**

*Acreages are calculated to six significant figures and subsequently rounded to two significant figures. Total acreage is based on the sum of these amounts at two

Aquatic Resources

Depressional Seasonal Wetland

Label	Acres*	Latitude	Longitude
1	0.008	38.435705	-121.417277
2	0.027	38.435621	-121.416354
3	0.047	38.434506	-121.417318
4	0.050	38.433998	-121.417271
5	0.140	38.432079	-121.415893
6	0.066	38.431982	-121.415138
7	0.002	38.431331	-121.414516
8	0.050	38.431064	-121.413628
9	0.130	38.431103	-121.418844
Subtotal	**0.519**		

Vernal Pool

Label	Acres*	Latitude	Longitude
10	0.091	38.433998	-121.41475
11	0.301	38.433881	-121.417863
12	0.409	38.432469	-121.416025
13	0.149	38.431733	-121.414746
14	0.385	38.431460	-121.414397
15	0.102	38.431237	-121.413945
Subtotal	**1.437**		

Riverine Seasonal Marsh

Label	Acres*	Length (Ft)	Latitude	Longitude
16	0.010	45.0	38.434548	-121.420624
17	0.189	634.0	38.434373	-121.419812
Subtotal	**0.199**	**679.0**		

Riverine Perennial Marsh

Label	Acres*	Length (Ft)	Latitude	Longitude
18	0.122	32.3	38.433240	-121.417268
19	0.029	162.8	38.432945	-121.409339
Subtotal	**0.151**	**195.1**		

Creek

Label	Acres*	Length (Ft)	Latitude	Longitude
20	0.052	178.3	38.435123	-121.417574
Subtotal	**0.052**	**178.3**		

Channel

Label	Acres*	Length (Ft)	Latitude	Longitude
21	0.014	167.2	38.435405	-121.417608
Subtotal	**0.014**	**167.2**		

Other Features

- Tire Rut
- Ditch - 0.07 Acre

Other Items

- Culverts
- Corner Coordinates
- Wetland Sample Point
- Upland Sample Point
- Topographic Contour
- Project Study Area ±30.8 Acres

NOTES

- The boundaries and jurisdictional status of all waters shown on this map are preliminary and subject to verification by the U.S. Army Corps of Engineers.
- Aquatic resources were mapped by Foothill Associates using a Trimble Global Positioning System on 04/11/2019, 04/23/2019, 05/01/2019.
- Delineated By: C. Singer.
- This delineation utilizes the Corps' 1987 three-parameter methodology and Arid West Supplement to delineate jurisdictional waters of the U.S.
- The Hydrologic Unit Code for this site is 180201630403
- Topographic contour interval is 2-foot.
- Digital base data provided by Sacramento County 2004 LiDAR .
- Coordinate System: NAD 83 State Plane Zone II (US Feet)
- Projection: Lamber Conformable Conic
- Datum: North American Datum 1983

Aerial Imagery Date: 03/26/2018
Aerial Imagery Source: Sacramento County

Federal Project Number: CML-5479(053)
City Project Number: WTL019

Document Path: O:\N Cal\L Projects\LagunaCreek BrucevilleRd\GIS\GIS Project Files\LCBR AqRes 20200423.mxd

HELIX Environmental Planning

USACE REGULATORY FILE #:
VERIFIED BY: TBD
DATE OF VERIFICATION: TBD

REVISIONS

DATE	DESCRIPTION	BY

0 400 800
Feet
1 inch = 200 feet

N

AQUATIC RESOURCES DELINEATION MAP

Made in accordance with the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016.

Laguna Creek Trail and Bruceville Road Sidewalk Improvements
Sacramento County, California
April 23, 2020

FIGURE 3

APPENDIX G: CITY OF ELK GROVE DEED RESTRICTED PARCELS LETTER TO USFWS

CITY OF
ELK GROVE
PROUD HERITAGE. BRIGHT FUTURE

May 25, 2023

Ian Perkins-Taylor
Senior Fish & Wildlife Biologist
U.S. Fish and Wildlife Service
2800 Cottage Way
Sacramento, CA 95825

RE: Authorization to Construct Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (CML-5479(053) / WTL019) within Deed Restricted Parcels

This letter evaluates the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project being constructed within and adjacent to three parcels currently under deed restrictions.

Background

The proposed Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (Project) (CML-5479(053) / WTL019) will develop paved trail improvements in the northwest quadrant of Big Horn Boulevard and Bruceville Road. The Project will construct two segments of new asphalt Class I Bikeway trail as a gap closure between existing trails within the City of Elk Grove (City). Trail segments may include amenities such as, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

Deed restrictions have been placed on three of the parcels intersecting and adjacent to the Project, APNs 116-0011-102, 116-0011-097, and 116-0011-094. These deed restrictions requiring certain conservation measures were required by the Lower Laguna Creek Drainage Master Plan Biological Opinion (1996) issued by the U.S. Fish and Wildlife Services as mitigation for impacts to Giant Garter Snake (GGS) habitat (Deed Restrictions). The County of Sacramento constructed the Lower Laguna Flood Control Project and as part of the required mitigation measures for development, deed restrictions were placed on three parcels within and adjacent to the trail Project's footprint in 1999. Once the City was incorporated in 2000, the three parcels under deed restrictions were transferred to City ownership.

The deed restrictions have the following purpose language stated within them:

a) Conserve, protect, restore, and enhance the Protected Property
b) Prevent any activity on or use of the Protected Property that is inconsistent with the purposes stated herein and to restore such areas or features of the Protected Property that may be damaged by any inconsistent activity or use
c) Undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Protected Property.

As the deed restricted parcels stand today, there is nothing indicating that any passerby should stay out of the area. In fact, a site visit revealed the public is currently traversing the area. This Project will provide

an adjacent paved path to help ensure that people are less likely to enter the greater conserved area. Additionally, post and cable fencing will be installed creating a physical barrier to people entering the larger conserved area. Further, interpretive signage will also be placed outside the deed restricted parcels which will indicate the requirement to stay out of the area. These Project features are discussed in further detail under the Proposed Project Features section below.

Additionally, the deed restrictions prohibit the following activities:

a) Erecting of any building, billboard, or sign, excepting signs identifying the Protected Property, its conservation values and prohibited activities;
b) Depositing of soil, trash, ashes, garbage, waste, bio-solids or any other material;
c) Excavating, dredging or removing of loam, gravel, soil, rock, sand or other material;
d) Otherwise altering the general topography of the Protected Property.
e) Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required for (1) channel maintenance, (2) fire breaks, (3) maintenance of access roads, (4) construction and maintenance of water qualify basins and associated outfall structures, or (5) emergency repairs.

The Project would be consistent with the prohibited activities as it would not erect any vertical above ground structures (buildings), billboards, or signs other than the interpretive signage outside the deed restricted parcels which will indicate the requirement to stay out of the area; therefore, the Project would be in compliance with prohibited activity a above.

The Project would not deposit soil, trash, ashes, garbage, waste, bio-solids, or other harmful material which would degrade or otherwise harm or conflict with the conservation values of the deed restricted parcels. Trail construction will require importation of materials, such as, but not limited to, aggregate base, asphalt concrete, and decomposed granite; however, the majority of these materials will be placed outside of the deed restricted parcels with only two minor encroachments detailed below in the Proposed Project Features section. Other features to be placed include post and cable fencing along the northern and eastern edges of the trail (adjacent to the deed restricted parcels), as well as needed bike-traffic safety signage. The Project will construct a trail and prevent future trespass into the deed restricted parcels with the post and cable fencing, which will prevent the public from depositing materials in conflict with the purpose and conservation values of the deed restrictions; therefore, the Project would be in compliance with prohibited activity b above.

Additionally, the Project would construct a trail over base material and trail construction activities include minor grading and excavation sufficient to flatten the existing ground per the advanced preliminary design plans in accordance with Caltrans Highway Design Manual Chapter 1000 (Bicycle Transportation Design) and City Public Works Design Standards. Excess earth excavated will either be placed within the deed restricted parcel, be moved to other trail locations outside the deed restricted parcels, or exported from the Project site to a remote disposal location. As the minor grading and excavation would be necessary to install the trail and post and cable fencing, the Project would not be in conflict with the purpose and conservation values of the deed restrictions to not excavate, dredge, or remove any soil or other material from the deed restricted parcels; therefore, the Project would be in compliance with prohibited activity c above.

The Project would not alter the general topography of the deed restricted parcels as the trail would be constructed along the existing topography; therefore, the Project would be in compliance with prohibited activity d above.

Lastly, the Project would not remove or destroy trees, or shrubs, contributing to the purpose of the deed restrictions subject to the discussion in the next paragraph. The small segments of trail within the deed restricted parcels would be constructed along an existing heavily utilized dirt path and would maintain existing access at these locations; therefore, the Project would be in compliance with prohibited activity e above.

See the Proposed Project Features and Encroachment I and II sections below for more specific discussion of each location.

Proposed Project Features

The Project will encroach into the deed restricted parcels at two locations of the Project, one at the northernmost segment of the trail near Mannington Street (Encroachment I) in APNs 116-0011-094 and 116-0011-097, and the second near McGill Court (Encroachment II) in APN 116-0011-102. The Project's proposed paved trail location, while encroaching into the deed restricted parcels in two small areas (about 1% of the overall Project), is consistent with the City Bicycle, Pedestrian, and Trails Master Plan. The Project proposes to install post and cable fencing along the entire trail to prevent the public from encroaching into the deed restricted parcels to be consistent with the commitments to conserve and protect the property. If these post and cable fences were not constructed as part of this Project, it is possible that future trespass into these deed restricted parcels would continue to occur. Additional signage is also anticipated to inform the public of the land's conservation values and prohibited activities beyond the post and cable fencing, which would be compliant with the deed restrictions. Both encroachments are discussed further below.

Encroachment I

A small portion of the trail alignment encroaches into the deed restricted parcel APN 116-0011-094 near the intersection of Mannington Street and Walbridge Way and APN 116-011-097 at its northern most reach, along the constructed berm near Mannington Street. The encroachment into APN 116-0011-094 is only to install post and cable fencing which is in compliance with the deed restrictions. The encroachment into APN 116-011-097 is intentionally being placed along an existing dirt path on top of an existing berm that has been traversed by the public. This unofficial dirt pathway has been heavily trafficked by the public and appears in aerial imagery dating back to 2002. Additionally, according to the Project's Natural Environment Study and Biological Assessment, this area's aquatic habitats are too small and shallow to support a GGS population, it lacks suitable emergent vegetation, and all adjacent aquatic features are completely dry during a majority of the year. This area is considered to have minimal biological value as there are no waters, vernal pools, or wetland features within the areas of encroachment and the existing dirt trails used for recreation do not provide adequate GGS habitat; therefore, this portion of the deed restricted parcel does not provide for conservation value of any protected plants or species, including GGS. Secondly, the Project would not require the removal of trees, or shrubs in this location and the trail would be constructed as explained below and placed on the existing dirt path on top of the berm within the deed restricted parcel.

Trail construction will involve removal of existing grasses for a width of 16 to 30 feet, including minor amounts of grading up to 2'-3' in depth and soil preparation/compaction in advance of placing imported trail materials. Imported trail materials include aggregate base (10' wide, 9"± deep), asphalt concrete pavement (10' wide, 3" deep), and decomposed granite (two 2' wide, 3" deep strips either side of trail). Conform grading will be performed from the edge of the decomposed granite to adjacent undisturbed ground. Other features will include the post and cable fencing, and bike safety signs & posts along the trail. Excess earth excavated from this location will either be placed within the deed restricted parcel, will be moved to other trail locations outside the deed restricted parcels, or exported from the Project site to a remote disposal location.

In summary, the reasons for the encroachment into this location, the northernmost berm area, is because it is already disturbed by existing pedestrian traffic, has no conservation value, and after trail construction, the Project will prevent further revision to the topography, which is a requirement under the deed restrictions.

Encroachment II

A small portion of the trail alignment encroaches into and traverses the deed restricted parcel APN 116-0011-102 near McGill Court, as the deed restricted parcel abuts private property at this location and there is no other option to provide a connection to Big Horn Boulevard outside of encroaching into the deed restricted parcels at this location. It is intentionally being placed along an existing dirt path that has been traversed by the public and the radius of the curve reduced to minimize the encroachment to the maximum extent feasible. This unofficial dirt pathway has been heavily trafficked by the public and appears in aerial imagery dating back to 2002. Additionally, similar to the location of Encroachment I, this area's aquatic habitats are too small and shallow to support a GGS population, it lacks suitable emergent vegetation, and all adjacent aquatic features are completely dry during a majority of the year according to the Project's Natural Environment Study and Biological Assessment. This area is considered to have minimal biological value as there are no waters, vernal pools, or wetland features within the areas of encroachment and the existing dirt trails used for recreation do not provide adequate GGS habitat; therefore, this portion of the deed restricted parcel does not provide for conservation value of any protected plants or species, including GGS. Secondly, the Project would not require the removal of trees, or shrubs in this location as described below and the trail would be placed on the existing dirt path within the deed restricted parcel.

Trail construction will involve removal of existing grasses for a width of 16 to 20 feet, including minor amounts of grading up to 1' in depth and soil preparation/compaction in advance of placing imported trail materials. Imported trail materials include aggregate base (10' wide, 9"± deep), asphalt concrete pavement (10' wide, 3" deep), and decomposed granite (two 2' wide, 3" deep strips either side of trail). Conform grading will be performed from the edge of the decomposed granite to adjacent undisturbed ground. Other features will include the post and cable fencing, and bike safety signs & posts along the trail. Excess earth excavated from this location will either be placed within the deed restricted parcel, will be moved to other trail locations outside the deed restricted parcels, or exported from the Project site to a remote disposal location.

In summary, the reasons for the encroachment into this location, the area near McGill Court, is to make the connection with Big Horn Boulevard; however, the curve radius has been reduced to minimize the

encroachment to the maximum extent feasible, the area is already disturbed by existing pedestrian traffic and has no conservation value, and the Project will prevent further revision to the topography, which is a requirement under the deed restrictions.

Therefore, this Project, and Encroachment I and II, are in conformance with the spirit of the conservation and protection requirements of the deed restrictions listed above.

Determination

Upon review of the intent of the deed restrictions on these three parcels, the City has determined the Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project would construct improvements that help meet the deed restriction's obligations for conservation. These improvements in compliance with the deed restrictions include formalizing long-standing dirt pathway to minimize future trespass onto the deed restricted parcels, construction of post and cable fencing, and placement of interpretive signage to inform the public of the conservation values of the lands. The proposed trail alignment also avoids impacting nearby environmentally sensitive areas.

The Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project has been designed to minimally encroach into the deed restrictions to the maximum extent feasible. The Project is permissible to encroach into the deed restrictions as the proposed Project features meet the spirit of the commitments/obligations of the deed restrictions and will help restrict future trespass by the public on the conserved property.

Sincerely,

Jeff Werner
Public Works Director
City of Elk Grove

cc: Jennifer Alves, City Attorneys Office

Attachments

Trail Alignment Figure
Conservation Measures from Deed Restrictions

MATCH LINE

116-1210-100

116-1270-033

SEGMENT 1

116-0011-002

116-0011-094

6-FOOT ASPHALT SIDEWALK GAP CLOSURE

6-FOOT ASPHALT SIDEWALK GAP CLOSURE

LAGUNA CREEK CHANNEL

CONNECTION TO MANNINGTON ST AND EXISTING TRAIL

ENCROACHMENT I

116-0011-102

116-1270-039

SEGMENT 1

ENCROACHMENT II

116-0011-004

BRUCEVILLE RD

CONNECTION TO BIG HORN BLVD

SEGMENT 3

BIG HORN BLVD

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18

PROJECT LOCATION



VICINITY MAP

CITY OF ELK GROVE, CA

116-1390-071

116-0011-097

MANNINGTON ST

MATCH LINE

CURVE TABLE

CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C1	90.00'	32°18'12"	26.07'	50.74'
C2	500.00'	11°20'12"	49.63'	98.93'
C3	30.00'	62°51'07"	18.33'	32.91'
C4	17.00'	146°26'22"	56.38'	43.45'
C5	115.00'	49°49'21"	53.41'	100.00'
C6	115.00'	22°58'49"	23.38'	46.12'
C7	200.00'	22°32'42"	39.86'	78.70'
C8	100.00'	87°31'15"	95.76'	152.75'
C9	100.00'	9°01'52"	7.90'	15.76'
C10	40.00'	89°03'58"	39.35'	62.18'
C11	100.00'	75°13'02"	77.03'	131.28'
C12	100.00'	6°50'54"	5.98'	11.95'
C13	170.00'	51°41'02"	82.34'	153.35'
C14	90.00'	47°19'27"	39.44'	74.34'
C15	90.00'	84°38'12"	81.95'	132.95'
C16	90.00'	26°44'17"	21.39'	42.00'
C17	90.00'	112°57'59"	135.89'	177.45'
C18	90.00'	86°23'07"	84.49'	135.69'

SCALE: 1" = 100'

MAY 11, 2023

LAGUNA CREEK TRAIL
TRAIL ALIGNMENT REVISED

CITY OF ELK GROVE
PROUD HERITAGE. BRIGHT FUTURE.

MARK THOMAS

EXHIBIT "C"

CONSERVATION MEASURES

The grant of the real property described in this Grant Deed (herein referred to as the "Protected Property") from Lennar Renaissance, Inc., a California corporation ("GRANTOR) to the County of Sacramento (Referred to herein as either "GRANTEE" or "County") is subject to the following conservation measures as required by that certain Biological Opinion No. 1-1-96-F-51 issued by the U.S. Fish and Wildlife Service (the "Service") on October 29, 1996, as amended (the "Biological Opinion"):

1. PURPOSE

It is the purpose of these conservation measures to assure that the Protected Property will be retained forever in an open space condition and to prevent any use of the Protected Property that will impair or interfere with the significant ecological and habitat values (collectively the "Conservation Values") of the Protected Property. These values include habitat for the giant garter snake (*Thamnophis couchii gigas*), a species listed as threatened under the federal Endangered Species Act.

2. OBLIGATIONS OF GRANTEE

To accomplish the purposes stated herein, GRANTEE shall:

(a) Conserve, protect, restore, and enhance the Protected Property in a manner consistent with the Biological Opinion and Department of the Army Permit No. 199500313 (the "Army Permit").

(b) Prevent any activity on or use of the Protected Property that is inconsistent with the purposes stated herein and to restore such areas or features of the Protected Property that may be damaged by any inconsistent activity or use.

(c) Undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Protected Property.

GD-2883

3. PROHIBITED USES

Subject to GRANTEE's right to maintain the Protected Property for flood control purposes in accordance with the Army Permit and Biological Opinion, any activity on or use of the Protected Property inconsistent with the purposes stated herein is prohibited. Without limiting the generality of the foregoing, and subject to GRANTEE's right to perform routine maintenance activities, emergency repairs, construct and maintain water quality basins and associated outfall structures, prohibited activities include:

(a) Erecting of any building, billboard, or sign, excepting signs identifying the Protected Property, its conservation values and prohibited activities;

(b) Depositing of soil, trash, ashes, garbage, waste, bio-solids or any other material;

(c) Excavating, dredging or removing of loam, gravel, soil, rock, sand or other material;

(d) Otherwise altering the general topography of the Protected Property.

(e) Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required for (1) channel maintenance, (2) fire breaks, (3) maintenance of access roads, (4) construction and maintenance of water qualify basins and associated outfall structures, or (5) emergency repairs.

4. REMEDIES

If the Service determines that there is a violation of the terms herein or that a violation is threatened, the Service shall give written notice to the County of such violation and demand corrective action sufficient to cure the violation and, where the violation involved injury to the Protected Property resulting from any use or activity inconsistent with the purposes, to restore in accordance with the Army Permit and Biological Opinion the portion of the Protected Property so

GD-25823

injured. If the County fa o cure a violation within sixty (60) da ter receipt of notice thereof from the Service, or under circumstances where the violation cannot reasonably be cured within a sixty (60) day period, fails to continue diligently to cure such violation until finally cured, the Service may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms hereof, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, and to require the restoration of the Protected Property to the condition that existed prior to any such injury. If the Service, in its good faith and reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Protected Property, the Service may pursue its remedies under this paragraph without prior notice to the County or without waiting for the period provided for the cure to expire. In such event, the Service must provide notice to the County within three (3) days of taking any such action.

The remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

Nothing contained herein shall be construed to entitle the Service to bring any action against County for any injury to or change in the Protected Property resulting from causes beyond the County's control, including, without limitation, fire, drought, flood, storm, and earth movement.

5. ACCESS

Service, its employees and agents shall have the right to access the Protected Property at all reasonable times.

6. NOTICE

Any notice or other communication regarding these conservation measures shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

GD-25823

Grantee: County of Sacramento
Public Works Agency
Water Resources Division
827 7th Street, Room 301
Attn: William R. Forrest, P.E.

Service: U.S. Fish and Wildlife Service
Ecological Field Office
3310 El Camino Avenue, Suite 130
Sacramento, CA 95821-6340

or to such other address or person as either entity may from time to time designate by written notice to the other.

7. RECORDATION

This instrument shall be recorded in the official records of Sacramento County as part of the grant deed conveying the property from GRANTOR to GRANTEE.

8. GENERAL PROVISIONS

(a) Controlling Law. The interpretation and performance of this instrument shall be governed by the laws of the State of California, the Federal Endangered Species Act, and other applicable Federal laws.

(b) Construction. Any general rule of construction to the contrary notwithstanding, this instrument shall be construed to effectuate the conservation purposes stated herein. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the conservation purposes that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability. If any provision of this instrument or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

GD-2823

(d) Successors. The terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, GRANTEE, Service and their respective successors and assigns and shall continue as servitudes running in perpetuity with the Protected Property.

(e) Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction of interpretation.

(f) Third-Party Beneficiary. GRANTOR and GRANTEE acknowledge that the Service is a third party beneficiary of the conservation measures contained herein with the right of access to the Protected Property and the right to enforce the terms and conditions hereof.

GD-2823

Christine Heckler

From: Bickerstaff, Emma L <emma_bickerstaff@fws.gov>
Sent: Wednesday, September 27, 2023 4:24 PM
To: Zach Liptak; Cook, Megan T; Perkins-Taylor, Ian E
Cc: Michael Karoly; Samuel Grimm; Kyrsten Shields; 'Jonathan Hernandez'; 'Aaron Silva'; Candice Guider-Heitmann; 'Taylor, Brooks M@DOT'; Jeff Werner; Jennifer Alves
Subject: RE: [EXTERNAL] Laguna Creek Trail and Bruceville Sidewalk - Deed Restriction Letter - CML-5479(053)
Attachments: CML-5479(053)-USFWS Letter Signed-20250525.pdf

[EXTERNAL EMAIL]

Hi Zach,

Apologies for the delayed response to your June 2 email (below) that discusses the proposed re-alignment and encroachment into the deed restricted areas of the Laguna Creek Trail and Bruceville Sidewalk proposed project (proposed project). We appreciate you sending us the letter from the City of Elk Grove (attached), that discusses the proposed project's re-design in relation to reducing encroachments onto three parcels that are currently under deed restriction for the giant garter snake (snake).

Regarding the information provided in the City's letter, while the proposed revised trail alignment and construction will encroach onto a portion of potential snake upland habitat that is within 200 feet of aquatic habitat and contains refugia for the snake (such as small mammal burrows), project-related disturbance to the upland habitat will be temporary during construction implementation and relatively small in scale. Additionally, the proposed new post and cable fencing and interpretive signage will aid in preventing pedestrian disturbance and associated erosion. It appears as though the conservation values of these areas will still be retained upon completion of construction for the following reasons: the small scale of proposed encroachment within areas of already disturbed upland snake habitat in the deed restricted parcels, the proposed trail is not expected to restrict movement of small mammals throughout the site, we anticipate that ground squirrels and other small mammals will continue to inhabit grounds adjacent to the proposed project.

Regarding the forthcoming biological assessment for the proposed project, we recommend incorporating a more detailed effects analysis for the snake including possible project-related impacts to the snake's terrestrial (upland) habitat, in addition to the recommendations we made in July of last year.

Please feel free to contact me with any questions.

Thank you,

Emma Bickerstaff (she/her)
Sacramento Valley Division Biologist
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605, Sacramento, CA 95825
(916) 414-6577

From: Zach Liptak <zliptak@elkgrovecity.org>
Sent: Friday, June 2, 2023 10:07 AM
To: Cook, Megan T <megan_cook@fws.gov>; Perkins-Taylor, Ian E <ian_perkins-taylor@fws.gov>; Bickerstaff, Emma L <emma_bickerstaff@fws.gov>

Cc: Michael Karoly <MKaroly@elkgrovecity.org>; Samuel Grimm <sgrimm@elkgrovecity.org>; 'Kyrsten Shields' <KyrstenS@helixepi.com>; 'Jonathan Hernandez' <jhernandez@markthomas.com>; 'Aaron Silva' <asilva@markthomas.com>; 'Candice Guider-Heitmann' <CandiceGH@helixepi.com>; 'Taylor, Brooks M@DOT' <brooks.taylor@dot.ca.gov>; Jeff Werner <jwerner@elkgrovecity.org>; Jennifer Alves <jalves@elkgrovecity.org>
Subject: [EXTERNAL] Laguna Creek Trail and Bruceville Sidewalk - Deed Restriction Letter - CML-5479(053)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Ian, Megan, and Emma,

During our field visit a few months back on the Laguna Creek Trail and Bruceville Sidewalk Project (CML-5479(053)), the Service requested a letter from property owners (the City of Elk Grove) regarding the proposed trail segments within the GGS deed restricted parcels. We've worked to redesign the trail to avoid the deed restrictions to the maximum extent feasible, including removing the segment of trail across the open field to Bruceville. The attached letter documents the project activities in relation to the deed restrictions, and finds that the proposed trail, in its current alignment, will meet the spirit of the commitments/obligations of the deed restrictions and is permitted to be constructed within the deed restrictions and signed by the City's Public Works Director. The Project will construct post and cable fencing to prevent future trespass into the deed restricted areas as well as signage informing the public of the habitat value and sensitivity of the area to comply with intent of the deed restrictions.

We are currently working to update the Biological Assessment to resume consultation based on the project design changes and we anticipate the letter will also be attached to the BA; however, we would like some preliminary concurrence on the proposed alignment and encroachment into the deed restrictions.

Please let us know if you have any questions, thank you very much !

Zach Liptak | **Capital Program Division**
Senior Environmental Planner
Contracted with Dokken Engineering

City of Elk Grove
8401 Laguna Palms Way, Elk Grove, CA 95758
Working Remotely, Please use cell: 916.873.0573
elkgrovecity.org

By sending us an email (electronic mail message) or filling out a web form, you are sending us personal information (i.e. your name, address, email address or other information). We store this information in order to respond to or process your

request or otherwise resolve the subject matter of your submission.

Certain information that you provide us is subject to disclosure under the California Public Records Act or other legal requirements. This means that if it is specifically requested by a member of the public, we are required to provide the information to the person requesting it. We may share personally identifying information with other City of Elk Grove departments or agencies in order to respond to your request. In some circumstances we also may be required by law to disclose information in accordance with the California Public Records Act or other legal requirements.

APPENDIX H: REPRESENTATIVE SITE PHOTOGRAPHS

Appendix H
Representative Photographs



Photo 1: View of proposed construction staging area; facing northwest.
Date: April 11, 2019.



Photo 2: Typical view of the proposed trail alignment in Segment 1; facing north.
Date: April 11, 2019.

Appendix H
Representative Photographs



Photo 3: Existing trail and view of proposed trail alignment in Segment 1; facing west.
Date: March 15, 2023.



Photo 4: Vernal pool in Segment 1; facing north.
Date: March 15, 2023.

Appendix H
Representative Photographs



Photo 5: Existing trail and view of proposed trail alignment in Segment 1; facing east.
Date: March 15, 2023.



Photo 6: Depressional seasonal wetland in Segment 1; facing south.
Date: March 15, 2023.

Appendix H
Representative Photographs



Photo 7: Representative view of proposed trail alignment in Segment 2; facing east.
Date: August 2, 2021.



Photo 8: Representative view of proposed trail alignment in Segment 2; facing west.
Date: August 2, 2021.

Appendix H
Representative Photographs



Photo 9: Depressional seasonal wetland in Segment 1; facing east.
Date: April 11, 2019.



Photo 10: Representative view of riverine perennial marsh in Segment 1; facing northeast.
Date: January 15, 2020.



Photo 11: Ditch and view of southern adjunct trail alignment in Segment 1; facing north.
Date: September 2, 2021.



Photo 12: Ditch and view of southern adjunct trail alignment in Segment 1; facing south.
Date: September 2, 2021.

IS/MND Attachment E

Arborist Report

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Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

Arborist Report

City Project Number: WTL019
Federal Project Number: CML-5479(053)

December 2019 | MTT-01

Prepared for:

City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758

Prepared by:

HELIX Environmental Planning, Inc.
590 Menlo Drive, Suite 5
Rocklin, CA 95765

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Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project

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ACRONYMS AND ABBREVIATIONS

City	City of Elk Grove
CRZ	critical root zone (1-foot per inch of trunk diameter)
DSH	diameter at standard height (54 inches above grade)
DLR	dripline radius (length from trunk to tip of longest lateral limb)
GPS	Global Positioning System
HELIX	HELIX Environmental Planning, Inc.
ISA	International Society of Arboriculture

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1.0 INTRODUCTION

1.1 REGIONAL LOCATION

This report presents the results of a tree survey conducted for the approximately 30.79-acre Laguna Creek Trail and Bruceville Road Sidewalk Improvement project site in the City of Elk Grove, California (Study Area). The Study Area is located approximately one mile west of State Route 99, and is situated south of Sheldon Road, west of Lewis Stein Road, and north of Laguna Boulevard. The project site is located within Township 7 North, Range 5 East, Section 27 of the USGS *Florin, California* 7.5-minute quadrangle (Figure 1). The purpose of this report is to document all the trees on the project site and assess the impacts to them from the proposed project.

1.2 CITY OF ELK GROVE TREE ORDINANCE

The City of Elk Grove (City) regulates the removal, pruning, and impacts to protected trees under the Tree Preservation and Protection Ordinance (Chapter 19.12 of the Municipal Code). Protected trees include trees of local importance, which are defined as any trees of the following species with a trunk diameter at standard height (DSH) of six inches or greater: coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), oracle oak (*Quercus x morehus*), California sycamore (*Platanus racemosa*), and California black walnut (*Juglans hindsii*). The DSH of multi-trunk trees is either measured at the narrowest point between the ground and the branch point or as the cumulative diameter of the largest trunk plus half the diameter of each additional trunk. Additionally, designated Landmark trees, trees in the right-of way or on City property, and trees previously retained during development review or planted as mitigation, are protected. The critical root zone (CRZ) is defined as a circle around the tree with a radius equal to one foot per inch DSH. A tree permit and mitigation are required prior to removal, pruning, or disturbance within the CRZ of any protected tree. Mitigation is required at a 1:1 ratio of trunk inches and may take the form of on-site or off-site planting, payment of in-lieu fees, or preservation of existing protected trees smaller than 6-inches DSH. Mitigation may be waived if the City Arborist determines a tree proposed for removal poses a significant risk to health and safety.

2.0 METHODOLOGY

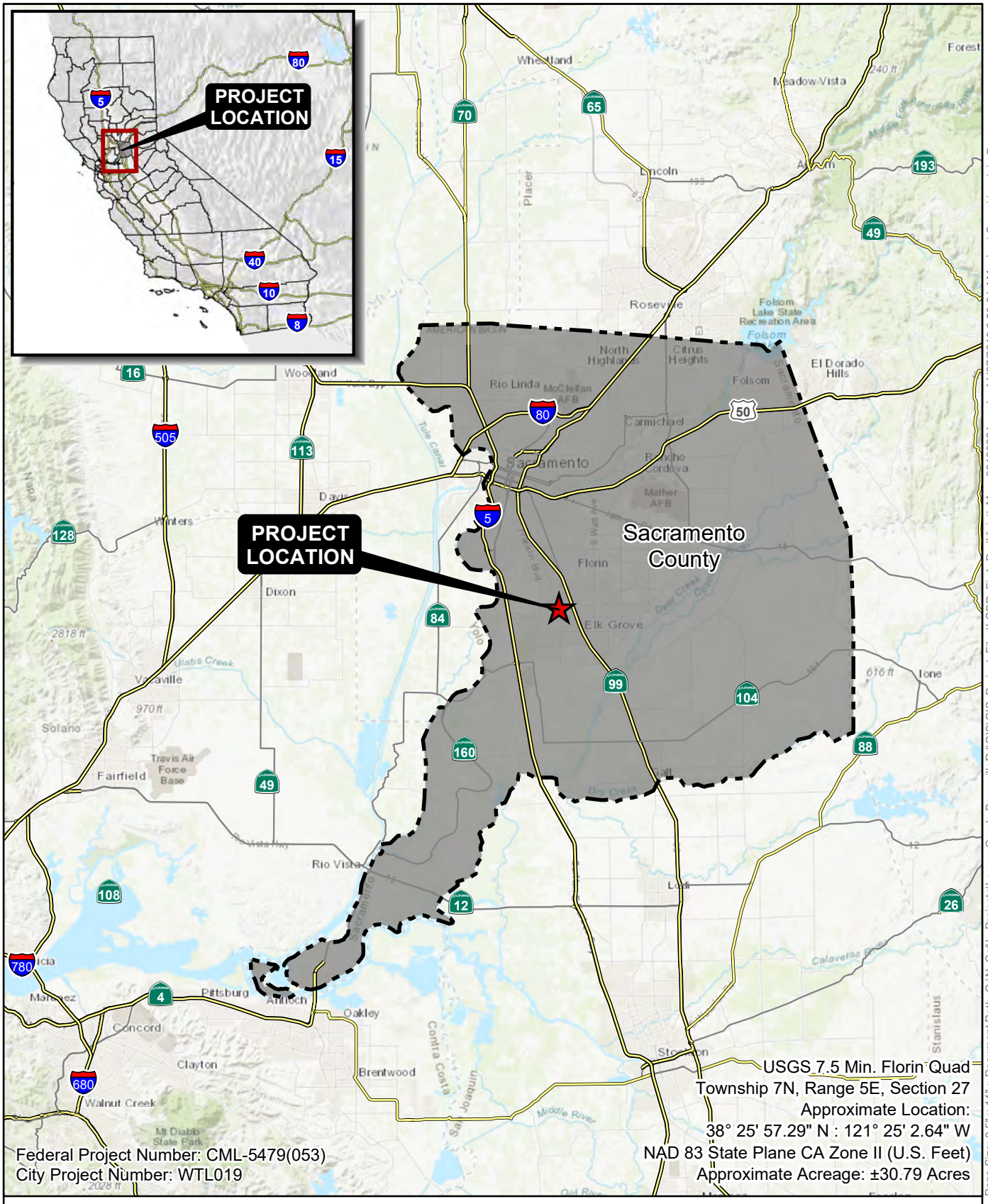
The Study Area was surveyed by International Society of Arboriculture (ISA)-Certified Arborist Charlotte Marks (WE-10519A) on May 3 and 6, 2019. All trees measuring at least four inches in DSH, within or overhanging the Study Area boundary, were inventoried. Each surveyed tree was examined to determine species type and trunk DSH. A diameter tape or calipers were used to verify each trunk diameter at 54 inches above grade (DSH). The measurement from the trunk to the end of the longest lateral limb was used as the approximate dripline radius (DLR). All accessible trees were tagged with a round pre-printed aluminum tag, which correspond to the numbering in Appendix A. Approximate tree locations were mapped using a Trimble GeoXT Global Positioning System (GPS) hand-held unit with sub-meter accuracy. Dead trees were mapped; however, no tree inventory data was collected and these trees were not tagged. Approximate tree locations of surveyed trees are identified in Figure 2.

The health and structural condition of each tree was rated according to the rating system described in Table 1. The health rating considers factors such as the size, color, and density of the foliage; the

amount of deadwood within the canopy; bud viability; evidence of wound closure; and the presence or evidence of stress, disease, nutrient deficiency, and insect infestation. The structural rating reflects the trunk and branch configuration; canopy balance; the presence of included bark and other structural defects such as decay; and the potential for structural failure. In cases where conditions fall between the good, fair, and poor ratings, intermediate ratings fair-good and poor-fair were used.

Table 1
TREE RATING SYSTEM

Good	There is an average or below-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are typical for the species; buds are normal size, viable, abundant, and uniform throughout the canopy; current and past growth increments are generally average or better; any callusing is vigorous. This health rating indicates that there is very little, if any, evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Fair	There is an above-average amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density may be below what is typically expected for the species; buds are normal size and viable, but slightly sparse throughout the canopy; current and past growth increments may be below average; tree may be slow to callus around old wounds. This health rating indicates that there is moderate evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Poor	There is an extreme amount of deadwood/dieback with respect to the tree's size and growing environment; leaf size, color, and density are clearly compromised; very few viable buds are present throughout the canopy; current and past growth increments are meager; no evidence of callusing around old wounds. This health rating indicates that there is widespread evidence of stress, disease, nutrient deficiency, and/or insect infestation.
Good	No wounds, cavities, decay, or indication of hollowness are evident in the root crown, trunk, or primary and secondary limbs; no anchor roots are exposed; no codominant branching or multiple trunk attachments are present; very little included bark at branch attachments exists; no dead primary or secondary limbs are present in canopy; there have been no major limb failures; limbs are not overburdened; branching structure is appropriate for species; any decay is limited to small dead branches/stubs. This structure rating represents a low potential for failure.
Fair	With respect to the size of the tree, small to moderate wounds, cavities, decay, and indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; some anchor roots may be exposed; codominant branching or multiple trunk attachments may be present, but included bark does not exist or is not well developed; minor to moderate amounts of included bark at branch attachments may exist; there may be small to moderate amounts of large dead limbs in canopy, but there is no evidence of large limb failures; limbs may be slightly overburdened; branching structure and/or canopy balance may be moderately altered by the tree's growing environment. This structure rating represents a moderate potential for failure.
Poor	With respect to the size of the tree, significant wounds, cavities, decay, and/or indication of hollowness may be evident in the root crown, trunk, and/or primary and secondary limbs; anchor roots may be exposed and/or the tree may have lost anchorage; codominant branching or multiple trunk attachments may be present; significant amounts of included bark may exist in trunk and branch attachments; there may be significant amounts of large dead limbs in the canopy; there may be evidence of trunk or large limb failures; limbs may be severely overburdened; branching structure and/or canopy balance may be drastically altered by the tree's growing environment. This structure rating represents a high potential for failure.



PROJECT VICINITY MAP

HELIX Environmental Planning

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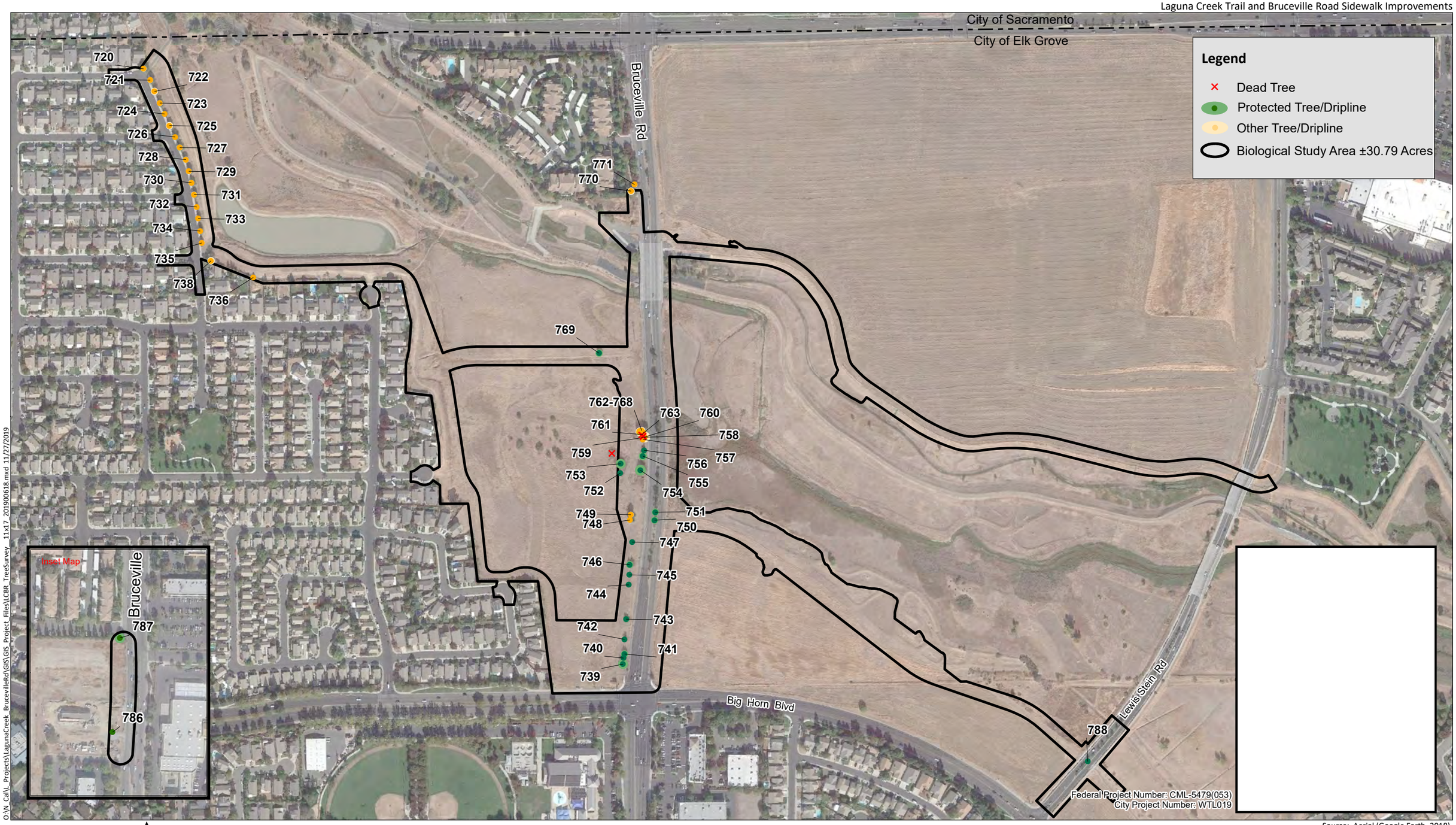
Drawn By: JCD

Date: 11/27/2019

FIGURE 1

LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

Page Size: 8.5" x 11" :: Document Path: O:\N_Cal\L_Projects\LagunaCreek_BrucevilleRd\GIS\GIS_Project_Files\LCBR_Fig1_Proj\VicinityMap_20190221.mxd :: 11/27/2019 8:59:21 AM :: Last Saved by: JohnD



Source: Aerial (Google Earth, 2018).

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Approximate Tree Locations

Figure 2

3.0 RESULTS AND DISCUSSION

3.1 SURVEYED TREES

A total of 54 trees were inventoried within the Study Area, consisting of three Callery pear (*Pyrus calleryana*), two Canary Island date palms (*Phoenix canariensis*), 15 black walnut (*Juglans hindsii*), one Fremont cottonwood (*Populus fremontii*), 12 white poplars (*Populus alba*), 16 Chinese pistache (*Pistacia chinensis*), and five valley oaks (*Quercus lobata*). Additionally, four dead trees were mapped within the Study Area. Detailed data on the surveyed trees is included in Appendix A. Approximate locations of surveyed trees are shown on Figure 2 and Table 2 shows the number of surveyed trees by health and structure ratings.

Table 2
NUMBER OF TREES BY HEALTH AND STRUCTURE RATINGS

		0	0	0	0	0	**0**
		0	0	0	0	0	**0**
		0	11	17	1	0	**29**
		0	0	9	5	0	**14**
		0	0	0	11	0	**11**
		0	**11**	**26**	**17**	**0**	**54**

Just over half of the trees (28) were in Fair health and structure. The remainder had at least moderate structural or health problems. A total of 24 trees are proposed for removal due to poor health and structural condition, as noted in Appendix A. Many of the trees in poor health have moderate to severe trunk rot and/or limb rot, bark wounds, and trunk death, which provide entry points for disease and decay organisms. Structurally, many of them demonstrated multiple trunks, leaning trunks, included bark and asymmetrical canopy which can lead to potential hazard to public safety in the long term. However, dead and dying trees provide vital habitat functions as nest and breeding locations and should be preserved where they do not pose a hazard to people or property.

3.2 IMPACTS AND MITIGATION

Only 20 of the surveyed trees are protected under the Ordinance. Of these protected trees, 14 are recommended for removal due to poor condition. The Study Area is based on preliminary project design and the limits of disturbance may be refined during final design. Once final design plans are developed, a Tree Removal Permit should be obtained from the City of Elk Grove. Mitigation requirements, the exact number and location of trees to be planted or the total amount of the in-lieu payment, will be determined based on the final impacts to protected trees and the recommendation of the City Arborist.

3.3 RECOMMENDED TREE PROTECTION MEASURES

The following measures should be integrated into the construction documents to protect the trees that will remain:

- Tree Protection Fencing, consisting of chain link or four-foot tall, brightly-colored, high-visibility plastic fencing, shall be placed around the perimeter of the CRZ (one foot per inch of trunk diameter) or dripline radius + 1 foot, whichever is greater. This is the minimum distance for placing protective fencing. Tree protection fencing should be placed as far outside of the CRZ as possible. Signs shall be placed along the fence denoting this as a "Tree Protection Zone" that shall not be moved until construction is complete. Trees or tree clusters with canopy extending beyond 50 feet from proposed project boundaries may be fenced only along sides facing the project. In cases where proposed work infringes on the CRZ, fence shall be placed at edge of work;
- Whenever possible, fence multiple trees together in a single CRZ;
- Tree protection fencing shall not be moved without prior authorization from the Project Arborist and the City of Elk Grove, as appropriate;
- No parking, portable toilets, dumping or storage of any construction materials, grading, excavation, trenching, or other infringement by workers or domesticated animals is allowed in the CRZ;
- No signs, ropes, cables, or any other items shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist;
- No tree-toxic materials shall be dumped on the project site (e.g., gasoline, herbicide, salt);
- Prior to the installation of new asphalt, weed control chemicals shall not be applied where they can leach into the dripline of any protected tree;
- Underground utilities should be avoided in the CRZ, but if necessary, shall be bored or drilled. If boring is impossible, all trenching will be done by hand under the supervision of an ISA-Certified Arborist;
- No cut or fill within the dripline of existing protected tree is permitted except as shown on the final development plans. If cut or fill within the dripline is unavoidable, any mitigation requirements shall be determined by the City of Elk Grove, as appropriate;
- Pruning of any retained tree shall be done under the supervision of an ISA-Certified Arborist and in accordance with current ISA standards and ANSI A300 standards;
- All wood plant material smaller than six inches in diameter shall be mulched on site. Resulting mulch shall be spread in a layer four to six inches deep in the CRZ of preserved trees. Mulch shall not be placed touching the trunk of preserved trees; and
- Appropriate fire prevention techniques shall be employed around all significant trees to be preserved. This includes cutting tall grass, removing flammable debris within the CRZ, and prohibiting the use of tools that may cause sparks, such as metal blade trimmers or mowers.

4.0 REFERENCES

City of Elk Grove. 2019. Chapter 19.12: Tree Preservation and Protection Ordinance. Available online at: https://www.codepublishing.com/CA/ElkGrove/html/ElkGrove19/ElkGrove1912.html#19.12.

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Appendix A

Tree Inventory Data

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Appendix A: Tree Inventory Data

Tree #	Tree Species	# of Trunks	DSH (inches)	DLR (feet)	Height (feet)	Condition		Protected Tree?	Notes
						Health	Structure		
720	Chinese pistache	1	7	12	15	Fair-Good	Fair	No	included bark
721	Chinese pistache	1	10	12	15	Fair	Fair	No	included bark, dieback
722	Chinese pistache	1	11	15	20	Fair	Fair	No	included bark, limb wound
723	Chinese pistache	1	9	12	20	Fair-Good	Fair	No	included bark, asymmetrical canopy
724	Chinese pistache	1	6	10	12	Fair	Fair	No	included bark, pruning cuts
725	Chinese pistache	1	10	15	17	Fair	Fair	No	exposed roots, included bark
726	Chinese pistache	1	9	10	17	Fair-Good	Fair	No	included bark
727	Chinese pistache	1	9	12	17	Fair	Fair	No	pruning cuts, exposed roots, included bark
728	Chinese pistache	1	7	12	15	Fair	Fair	No	included bark, pruning cuts
729	Chinese pistache	1	10	12	15	Fair	Fair	No	included bark, pruning cuts
730	Chinese pistache	1	9	12	15	Fair-Good	Fair	No	included bark
731	Chinese pistache	1	9	12	15	Fair	Fair	No	included bark, girdled roots
732	Chinese pistache	1	5	6	12	Fair-Good	Fair	No	included bark, pruning cuts

Appendix A: Tree Inventory Data

Tree #	Tree Species	# of Trunks	DSH (inches)	DLR (feet)	Height (feet)	Condition		Protected Tree?	Notes
						Health	Structure		
733	Chinese pistache	1	8	10	15	Fair	Fair	No	included bark, pruning cuts
734	Chinese pistache	1	8	10	17	Fair-Good	Fair	No	included bark, pruning cuts
735	Chinese pistache	1	12	12	17	Fair	Fair	No	included bark, pruning cuts
736	Callery pear	6	4,2,2,2,2,2	6	12	Fair	Fair	No	asymmetrical canopy, pruning cuts, included bark
738	Fremont cottonwood	1	14	15	32	Fair	Fair	No	trunk wound, lean, included bark, trunk rot, limb rot
739	Black walnut	1	25	20	27	Poor-Fair	Poor-Fair	**Yes**	**Recommended for removal;** included bark, trunk rot, limb rot, bark damage, limb rot, exfoliating bark
740	Black walnut	1	11	10	12	Poor-Fair	Poor	**Yes**	**Recommended for removal;** trunk rot, trunk death, lean, limb rot, crown death, burrow at base
741	Black walnut	2	14,15	15	20	Poor-Fair	Poor-Fair	**Yes**	**Recommended for removal;** included bark, lean, trunk rot, limb rot, asymmetrical canopy
742	Black walnut	1	15	10	15	Poor-Fair	Poor-Fair	**Yes**	**Recommended for removal;** trunk cavity, included bark, limb rot, trunk rot
743	Black walnut	6	8,7,4,9,8,5	12	10	Poor-Fair	Poor	**Yes**	**Recommended for removal;** burrow at base, included bark, trunk rot, weighted limbs

Appendix A: Tree Inventory Data

Tree #	Tree Species	# of Trunks	DSH (inches)	DLR (feet)	Height (feet)	Condition		Protected Tree?	Notes
						Health	Structure		
744	Black walnut	4	9,6,5,2	8	6	Poor-Fair	Poor	**Yes**	**Recommended for removal;** trunk death, trunk rot, included bark, crown death, limb rot
745	Black walnut	3	7,8,6	4	10	Poor-Fair	Poor	**Yes**	**Recommended for removal;** basal cavity, included bark, trunk rot
746	Black walnut	1	18	15	15	Fair	Poor-Fair	**Yes**	**Recommended for removal;** lean, trunk rot, included bark, limb rot
747	Black walnut	1	6	6	6	Poor-Fair	Poor	**Yes**	**Recommended for removal;** multiple trunk deaths, trunk rot, trunk cavity, limb rot
748	Canary Island date palm	1	21	10	27	Fair-Good	Fair	No	bark damage
749	Canary Island date palm	1	23	12	35	Fair-Good	Fair	No	burrows at base, bark damage
750	Valley oak	1	10	15	25	Fair	Poor-Fair	**Yes**	lean, epicormic growth, dieback, trunk scars
751	Valley oak	1	10	15	25	Poor-Fair	Fair	**Yes**	slight lean, included bark, dieback
752	Black walnut	5	3,5,5,4,2	10	8	Poor-Fair	Poor	**Yes**	**Recommended for removal;** trunk rot, limb rot, included bark, slight lean
753	Black walnut	6	10,10,6,12, 9,6	20	17	Fair	Poor-Fair	**Yes**	**Recommended for removal;** multiple trunks at the base, included bark, trunk rot, limb rot, limb death

Appendix A: Tree Inventory Data

Tree #	Tree Species	# of Trunks	DSH (inches)	DLR (feet)	Height (feet)	Condition		Protected Tree?	Notes
						Health	Structure		
754	Black walnut	2	13, 11	22	27	Poor-Fair	Poor	**Yes**	**Recommended for removal;** hollow at base , burrow at base, trunk rot, multiple trunk deaths, lean, bark damage
755	Black walnut	5	7,9,9,11,5	17	20	Poor-Fair	Poor	**Yes**	**Recommended for removal;** multiple trunks at the base, trunk rot, included bark, lean, limb rot
756	Black walnut	3	10,8,9	10	12	Poor-Fair	Poor-Fair	**Yes**	**Recommended for removal;** trunk rot, trunk deaths , included bark, limb rot
757	White poplar	1	6	8	17	Poor-Fair	Poor-Fair	No	**Recommended for removal;** trunk rot, lean, included bark, trunk death
758	White poplar	1	4	6	15	Poor-Fair	Poor	No	**Recommended for removal;** multiple trunk deaths, included bark, lean, trunk rot, fungus
759	White poplar	2	11,10	12	22	Fair	Poor-Fair	No	**Recommended for removal;** included bark, lean, trunk rot, exfoliating bark
760	White poplar	2	4,7	22	17	Poor-Fair	Poor	No	**Recommended for removal;** lean, trunk death, exfoliating bark, trunk rot, included bark
761	White poplar	1	8	8	27	Fair	Poor-Fair	No	**Recommended for removal;** lean, trunk rot, limb death
762	White poplar	3	10,9,7	15	22	Fair	Poor-Fair	No	**Recommended for removal;** lean, multiple trunks at the base, trunk rot
763	White poplar	3	6,11,9	12	20	Fair	Poor-Fair	No	**Recommended for removal;** lean, included bark, multiple trunks at the base, bark damage

764	White poplar	1	5	8	10	Poor-Fair	Poor	No	epicormic growth, lean, trunk rot, crown death
765	White poplar	1	9	15	25	Fair	Poor-Fair	No	lean, epicormic growth, included bark
766	White poplar	1	4	15	20	Fair	Fair	No	lean, epicormic growth
767	White poplar	4	4,3,6,2	15	17	Fair	Poor-Fair	No	multiple trunks at the base, included bark, limb rot;
768	White poplar	5	10,10,11,6, 9	15	27	Fair	Fair	No	multiple trunks at the base, lean, included bark
769	Black walnut	13	2,4,3,4,4,4, 4,3,3,5,6,5, 7	15	17	Fair	Fair		included bark, weighted limbs, limb rot
770	Callery pear	1	16	15	27	Fair-Good	Fair	No	power lines, included bark, pruning cut scars
771	Callery pear	1	11	12	25	Fair	Fair	No	exposed roots, included bark, pruning cut scars
786	Valley oak	2	3,7	6	12	Fair-Good	Fair		included bark
787	Valley oak	2	13,11	20	32	Fair-Good	Fair		included bark, asymmetrical canopy, slight lean, dieback
788	Valley oak	1	6	6	20	Fair	Fair		included bark, dieback

IS/MND Attachment F

Historic Property Survey Report/ Archaeological Survey Report

CONFIDENTIAL DOCUMENT – NOT SUITABLE FOR PUBLIC DISTRIBUTION

IS/MND Attachment G

City of Elk Grove Laguna Creek Trails Project - Floodplain Evaluation

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WEST YOST ASSOCIATES

TECHNICAL MEMORANDUM

DATE: June 3, 2019

Project No.: 009-60-19-20
SENT VIA: EMAIL

TO: Zach Siviglia, Mark Thomas and Company

FROM: Mark Kubik, PE, RCE #50963
Megan McWilliams, EIT# 164172

REVIEWED BY: Doug Moore, PE, RCE #058122



SUBJECT: City of Elk Grove Laguna Creek Trails Project – Floodplain Evaluation

INTRODUCTION

The City of Elk Grove (City) plans to construct pedestrian trails along Laguna Creek (Project) near Lewis Stein Road and Bruceville Road. The proposed trails will be adjacent to Laguna Creek and the Laguna Creek Bypass Channel (Project). West Yost Associates (West Yost) performed a hydraulic analysis to determine the potential floodplain impacts of the Project. This Technical Memorandum describes the hydraulic analysis and summarizes the results.

HYDRAULIC MODEL UPDATE

A dynamic HEC-RAS hydraulic model of Laguna Creek was previously prepared to support the City's Storm Drainage Master Plan. For this analysis, the City's HEC-RAS model was modified to represent the proposed post-project conditions using the 35% design drawings (see Attachment A) prepared by Mark Thomas and Company (Mark Thomas) dated April 10, 2019. The elevations in the City's HEC-RAS model are based on the National Geodetic Vertical Datum of 1929 (NGVD29) while the drawings prepared by Mark Thomas are based on the North American Vertical Datum of 1988 (NAVD88). The elevations from the 35% drawings were adjusted from NAVD88 to NGVD29 by subtracting 2.43 feet. This is the datum conversion determined by the Federal Emergency Management Agency for the Sacramento County Flood Insurance Study.

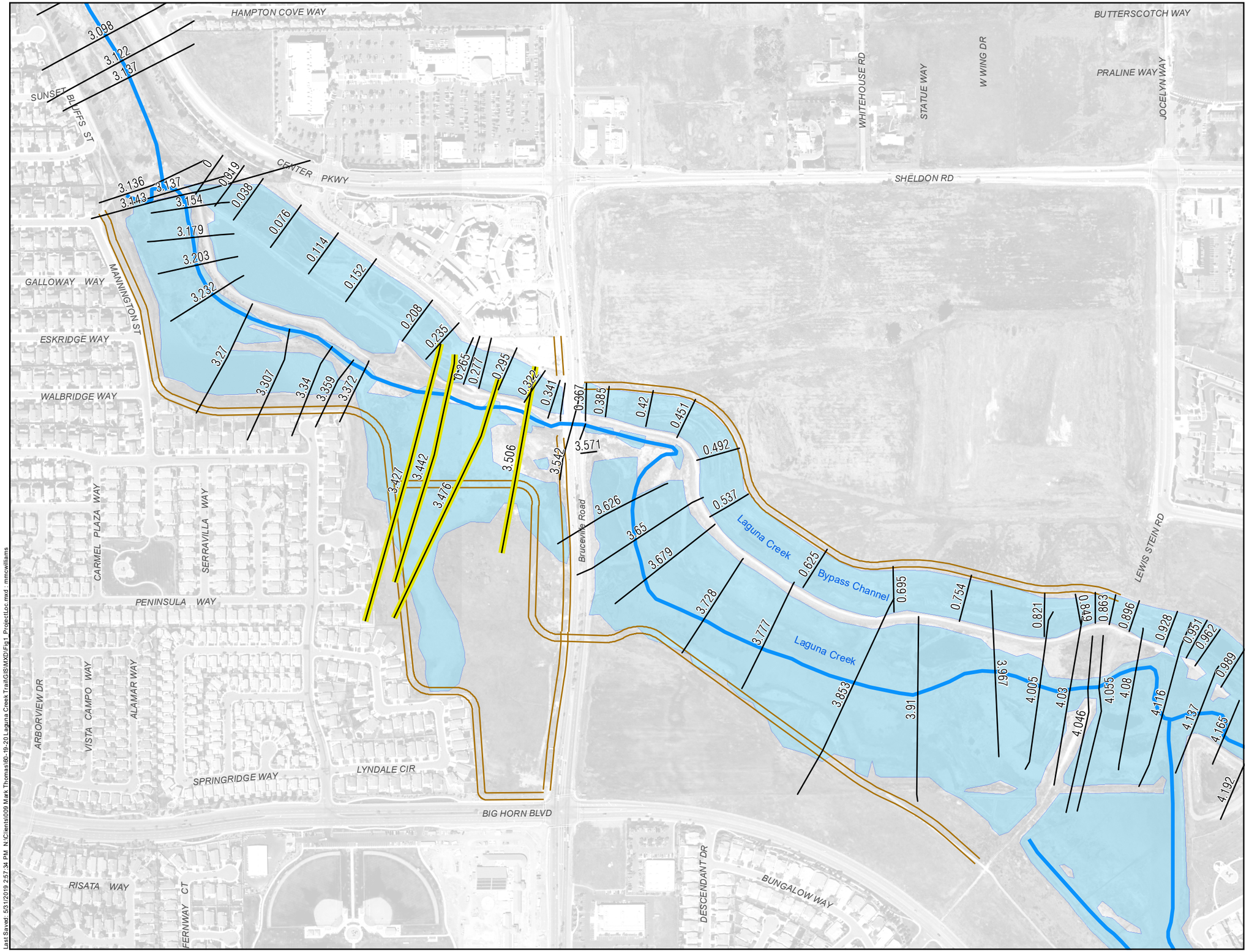
Based on the design drawings, West Yost determined those locations where the proposed trails would be constructed within the 100-year floodplain. For those locations, the cross sections in the HEC-RAS model were revised to represent post-project conditions. Figure 1 displays the Project's location and highlights the cross sections that were revised to represent post-project conditions. Our review of the drawings indicates that the trail along the Laguna Creek Bypass Channel will be constructed at the top of the bank and will not encroach into the floodplain. Also, there are a few locations along Laguna Creek where the trail appears to be proposed just within the fringe of the 100-year floodplain on Figure 1 (Cross Sections 3.728, 3.777, and 3.853). Our review of the plans and the floodplain data indicate that the existing ground elevations along the proposed trail alignment at these cross sections are above the floodplain elevation and the proposed Project will not change the floodplain conditions at these cross sections. Therefore, no changes were made to the HEC-RAS model at those cross sections.

HYDRAULIC ANALYSIS AND RESULTS

The Project was evaluated using the 10-year and 100-year storms. Table 1 presents the results of the hydraulic analysis. The locations of the HEC-RAS cross sections that are referenced in Table 1 are displayed in Figure 1. Table 1 does not list the results for all cross sections in the City's HEC-RAS model. For cross sections not listed, the results from the hydraulic model indicated no change in the water surface elevations between existing and post-project conditions for either the 10-year or 100-year storm.

For the 10-year storm, the maximum increase in water surface elevations due to construction of the Project is 0.02 feet. For the 100-year storm, the maximum increase in water surface elevations is 0.01 feet. The predicted increases in water surface elevation are very small and would not significantly change the floodplain limits and would not result in flooding of the surrounding developed areas. Based on these model results, we believe the Project can be constructed as proposed without causing significant floodplain impacts.

Table 1. Comparison of Water Surface Elevations in Feet (NGVD29)						
	10-Year Storm			100-Year Storm		
HEC-RAS Cross Section Number	Existing	Post-Project	Difference	Existing	Post-Project	Difference
Laguna Creek						
4.005	25.20	25.20	0.00	25.37	25.37	0.00
3.967	24.99	24.99	0.00	25.18	25.18	0.00
3.91	24.82	24.83	0.01	25.03	25.03	0.00
3.853	24.67	24.68	0.01	24.88	24.88	0.00
3.777	24.37	24.38	0.01	24.60	24.60	0.00
3.728	24.16	24.17	0.01	24.41	24.42	0.01
3.679	24.05	24.05	0.00	24.31	24.31	0.00
3.65	23.98	23.99	0.01	24.24	24.24	0.00
3.626	23.93	23.93	0.00	24.19	24.19	0.00
3.5985	0.00	0.00	0.00	0.00	0.00	0.00
3.571	23.75	23.76	0.01	23.95	23.95	0.00
3.552 DS OF BRUCEVILLE	23.64	23.64	0.00	23.77	23.78	0.01
3.542	23.45	23.46	0.01	23.65	23.66	0.01
3.506[(a)]	22.70	22.72	0.02	23.13	23.14	0.01
3.476[(a)]	22.62	22.63	0.01	23.09	23.10	0.01
3.442[(a)]	22.58	22.59	0.01	23.07	23.07	0.00
3.427[(a)]	22.57	22.57	0.00	23.06	23.06	0.00
3.372	22.51	22.51	0.00	23.00	23.00	0.00
3.359	22.47	22.47	0.00	22.97	22.97	0.00
3.34	22.43	22.43	0.00	22.93	22.93	0.00
3.307	22.39	22.38	-0.01	22.89	22.89	0.00
3.27	22.33	22.33	0.00	22.84	22.84	0.00
3.232	22.30	22.29	-0.01	22.81	22.81	0.00
3.203	22.28	22.28	0.00	22.80	22.80	0.00
3.179	22.21	22.21	0.00	22.71	22.71	0.00
3.154	22.13	22.12	-0.01	22.62	22.62	0.00
3.143	20.55	20.54	-0.01	20.84	20.84	0.00
3.14	0.00	0.00	0.00	0.00	0.00	0.00
3.137	16.55	16.55	0.00	18.26	18.26	0.00
3.136	16.55	16.55	0.00	18.26	18.26	0.00
Laguna Creek Bypass Channel						
0.341	18.14	18.14	0.00	19.86	19.86	0.00
0.322	17.8	17.8	0.00	19.56	19.56	0.00
0.295	17.61	17.61	0.00	19.43	19.43	0.00
0.277	17.48	17.48	0.00	19.31	19.31	0.00
0.265	17.35	17.35	0.00	19.19	19.19	0.00
0.259	17.38	17.38	0.00	19.22	19.22	0.00
0.235	17.28	17.28	0.00	19.12	19.12	0.00
0.208	17.19	17.19	0.00	19.02	19.02	0.00
0.152	17.01	17.01	0.00	18.82	18.82	0.00
0.114	16.89	16.9	0.01	18.68	18.68	0.00
0.076	16.78	16.78	0.00	18.54	18.54	0.00
0.038	16.67	16.67	0.00	18.4	18.4	0.00
0.019	16.61	16.61	0.00	18.33	18.33	0.00
0	16.55	16.55	0.00	18.26	18.26	0.00
(a) Cross sections updated with post-project conditions.						



Last Saved: 5/31/2019 2:57:34 PM N:\Clients\09 Mark Thomas\60-19-20 Laguna Creek Trail\GIS\MXD\Fig1_ProjectLoc.mxd - mmcwilliams

N

0 200 400

Scale in Feet

Symbology

- HEC-RAS Cross Section
- HEC-RAS Cross Section - Updated with Post-Project Conditions
- Proposed Laguna Creek Trail
- Laguna Creek
- Laguna Creek Existing 100 Year Floodplain

MARK THOMAS

WEST YOST ASSOCIATES

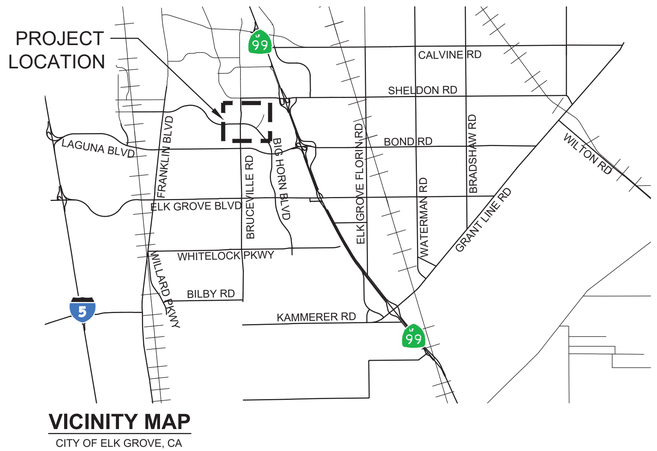
Figure 1

Project Location and Existing 100-Year Floodplain

Mark Thomas and Company
Floodplain Evaluation
Laguna Creek Trails Project

ATTACHMENT A

Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project (35% Design Drawings)



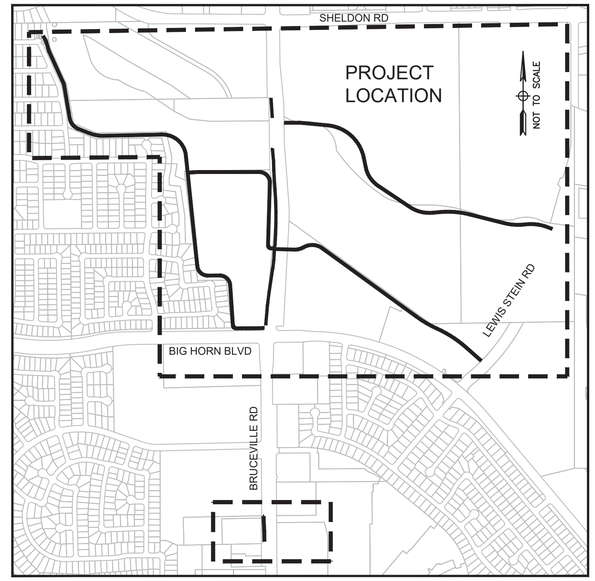
VICINITY MAP
CITY OF ELK GROVE, CA

CITY OF ELK GROVE

DEPARTMENT OF PUBLIC WORKS
8401 LAGUNA PALMS WAY ● ELK GROVE, CALIFORNIA 95758

IMPROVEMENT PLANS FOR:

LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS PROJECT - WTL019



LOCATION MAP

35% SUBMITTAL
NOT FOR CONSTRUCTION
APRIL, 2019

TO BE SUPPLEMENTED BY:
CITY OF ELK GROVE IMPROVEMENT STANDARDS AND STANDARD DRAWINGS, LATEST EDITION
CITY OF ELK GROVE STANDARD CONSTRUCTION SPECIFICATIONS, LATEST EDITION
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, STANDARD PLANS AND SPECIFICATIONS, 2018

SHEET INDEX:

1	T-1	TITLE SHEET
2	X1-X2	TYPICAL SECTIONS
3	L1-L8	LAYOUT SHEETS
4	P1-P7	PROFILE SHEETS

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NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE

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DRAWN: Z. HUBBARD
CHECKED: A. SILVA

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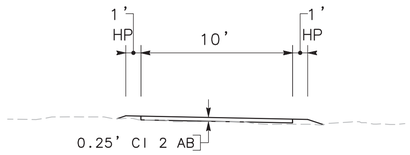
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916.683.7111

WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
TITLE SHEET

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PROJECT No.: WTL019	

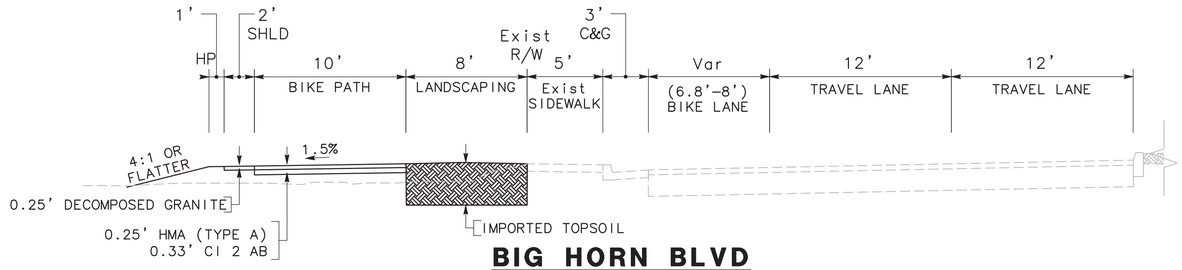
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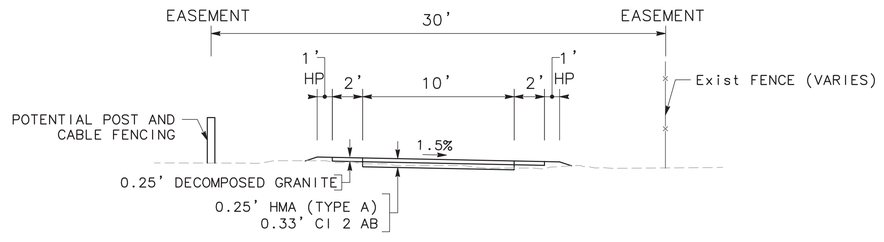
UNPAVED TRAIL

"U" LINE 10+00 TO 14+31



BIG HORN BLVD

"BH" LINE 228+76 TO 231+62



LAGUNA CREEK TRAIL

"S1" LINE 10+00 TO 46+14
"S2" LINE 60+00 TO 84+81
"S3" LINE 105+20 TO 132+10

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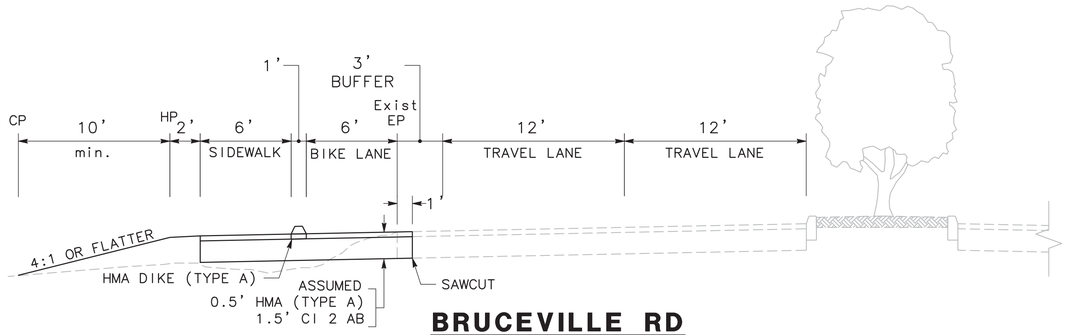
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WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
TYPICAL SECTIONS

DATE: APRIL 10, 2019
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PROJECT No.: WTL019
DRAWING NUMBER: X-1
SHEET: 2 OF 18

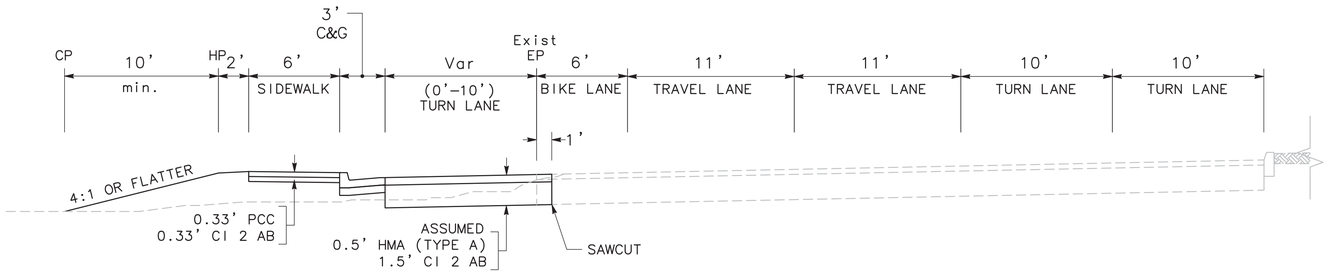
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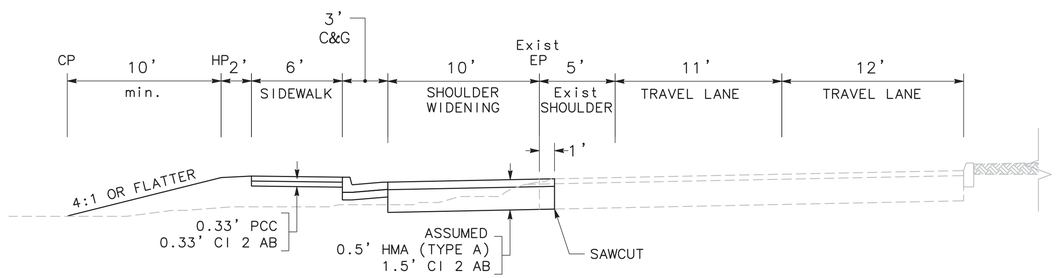
BRUCEVILLE RD

"BR" LINE 182+46 TO 197+05



BRUCEVILLE RD

"BR" LINE 177+23 TO 182+46



BRUCEVILLE RD

"BR" LINE 158+76 TO 161+97

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LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

TYPICAL SECTIONS

DATE: APRIL 10, 2019
SCALE: N/A
PROJECT No.: WTL019
DRAWING NUMBER: X-2
SHEET: 3 OF 18

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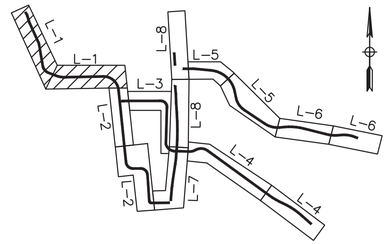
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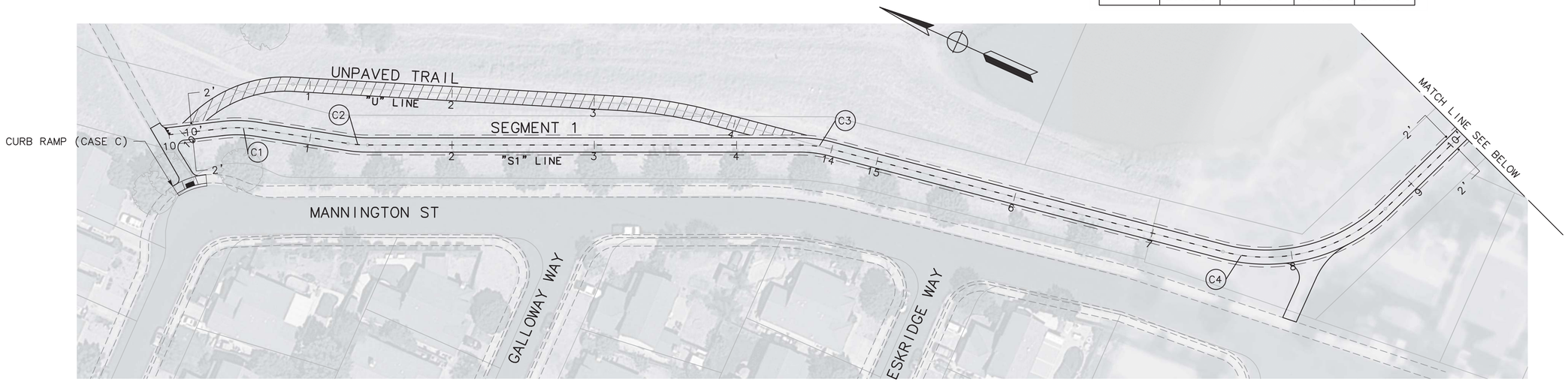
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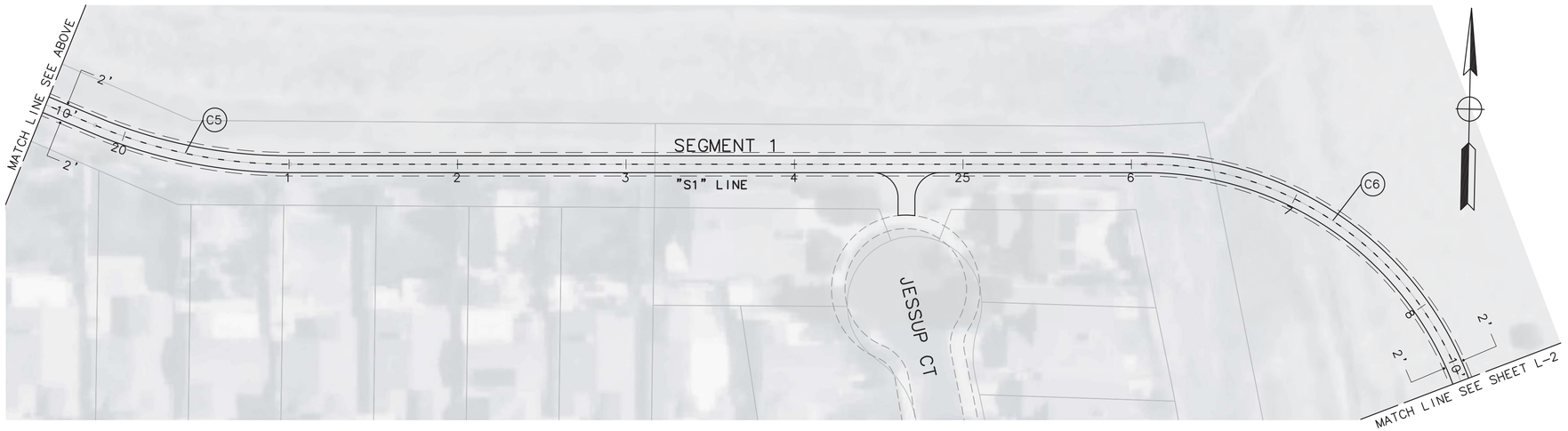
CLASS 2 AB

CURVE TABLE				
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C1	90.00'	15°34'55"	12.31'	24.48'
C2	90.00'	8°51'51"	6.98'	13.92'
C3	90.00'	14°40'54"	11.59'	23.06'
C4	120.00'	58°56'18"	67.81'	123.44'
C5	300.00'	22°38'49"	60.07'	118.58'
C6	200.00'	85°17'37"	184.21'	297.73'



KEY MAP
NTS





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NO.	REVISION	BY	DATE

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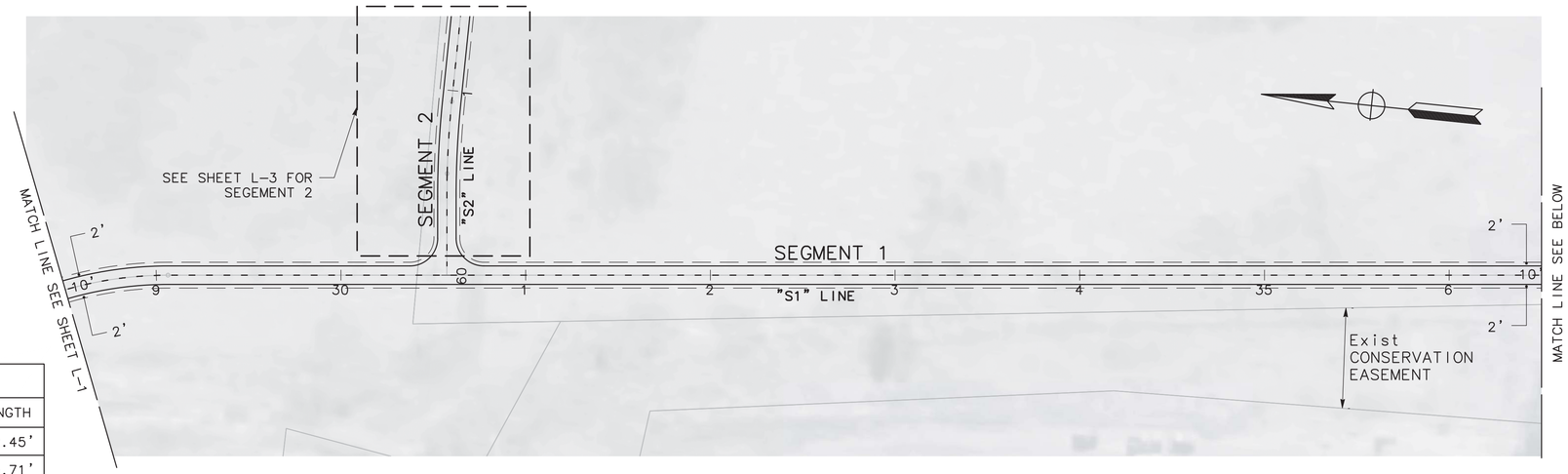
WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
LAYOUTS

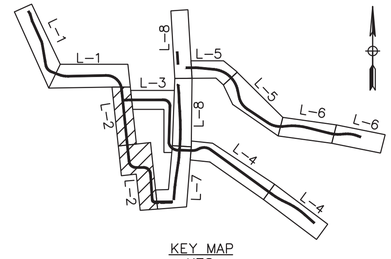
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PROJECT No.: WTL019
DRAWING NUMBER: L-1
SHEET: 4 OF 18

WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

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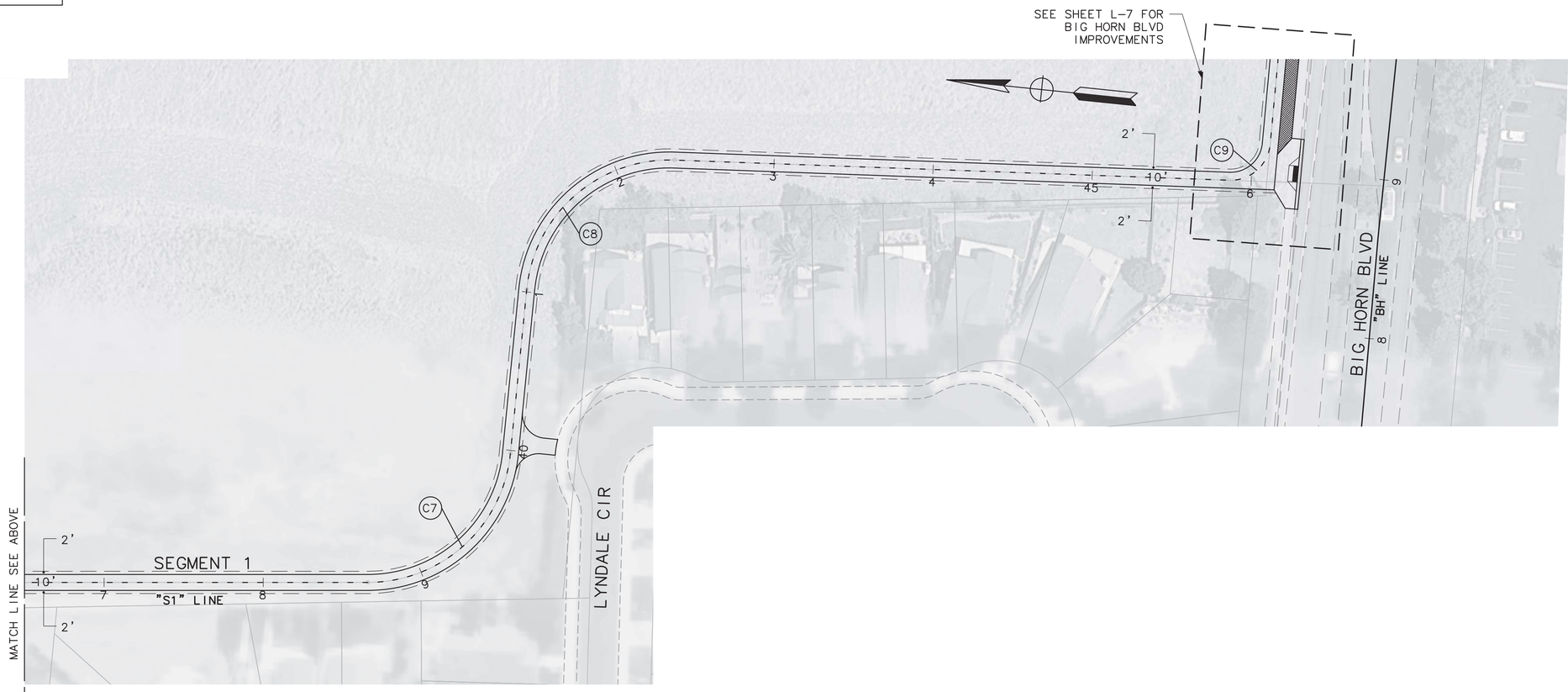
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KEY MAP
NTS

CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C7	90.00'	84°19'04"	81.49'	132.45'
C8	90.00'	86°23'51"	84.51'	135.71'
C9	25.00'	86°48'11"	23.64'	37.88'



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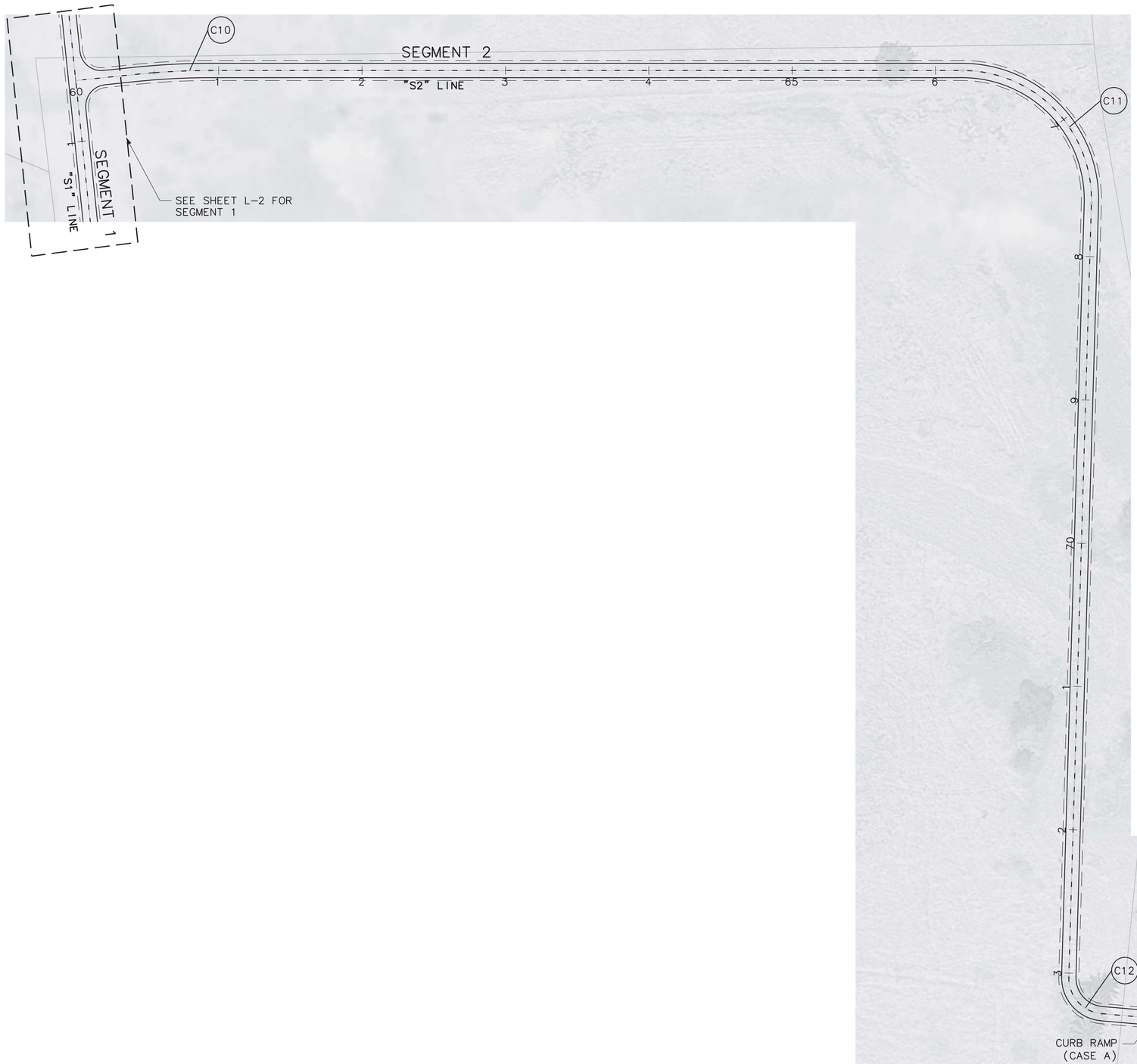
WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
LAYOUTS

DATE: APRIL 10, 2019
SCALE: 1"=40'
PROJECT No.: WTL019
DRAWING NUMBER: L-2
SHEET: 5 OF 18

WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

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KEY MAP
NTS

CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C10	500.00'	4°28'12"	19.51'	39.01'
C11	90.00'	91°40'25"	92.67'	144.00'
C12	25.00'	86°44'58"	23.62'	37.85'
C13	150.00'	29°56'52"	40.12'	78.40'
C14	150.00'	65°56'34"	97.30'	172.64'

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NOT FOR CONSTRUCTION

WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

35% SUBMITTAL - APRIL, 2019 - Reviewed by/ date:

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DESIGNED: J. HERNANDEZ
DRAWN: Z. HUBBARD
CHECKED: A. SILVA

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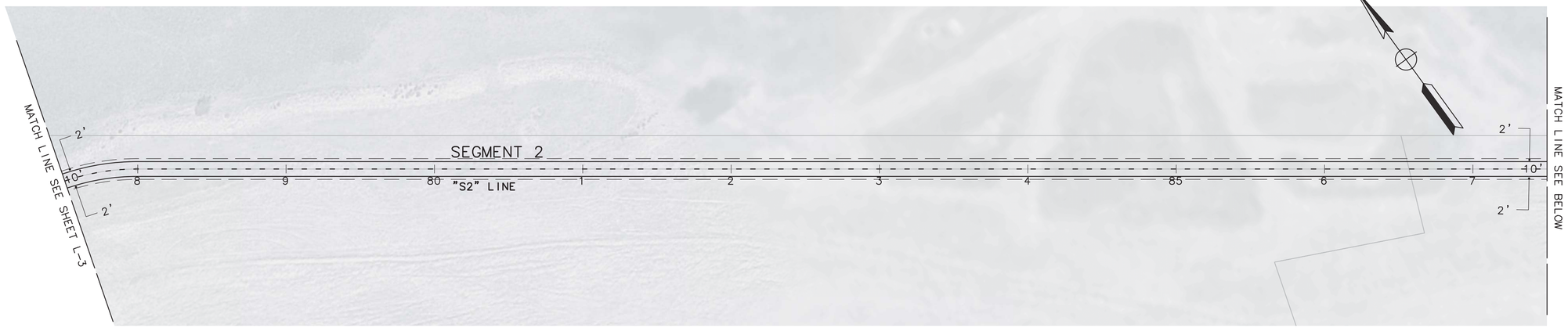
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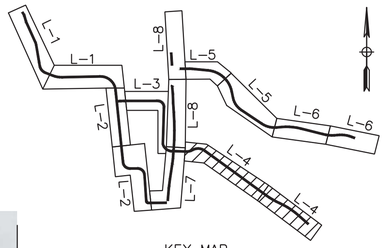
WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
LAYOUTS

DATE: APRIL 10, 2019
SCALE: 1"=40'
PROJECT No.: WTL019

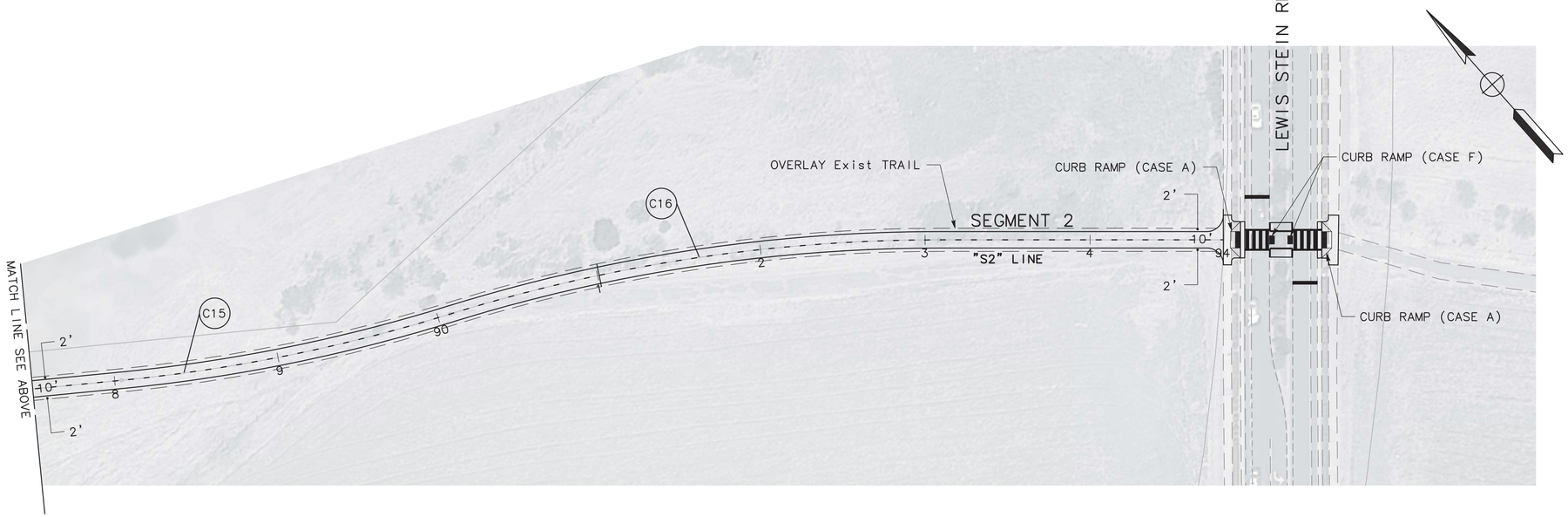
DRAWING NUMBER: L-3
SHEET: 6 OF 18

CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C15	1000.00'	11°39'58"	102.16'	203.61'
C16	1000.00'	17°13'48"	151.50'	300.72'





KEY MAP
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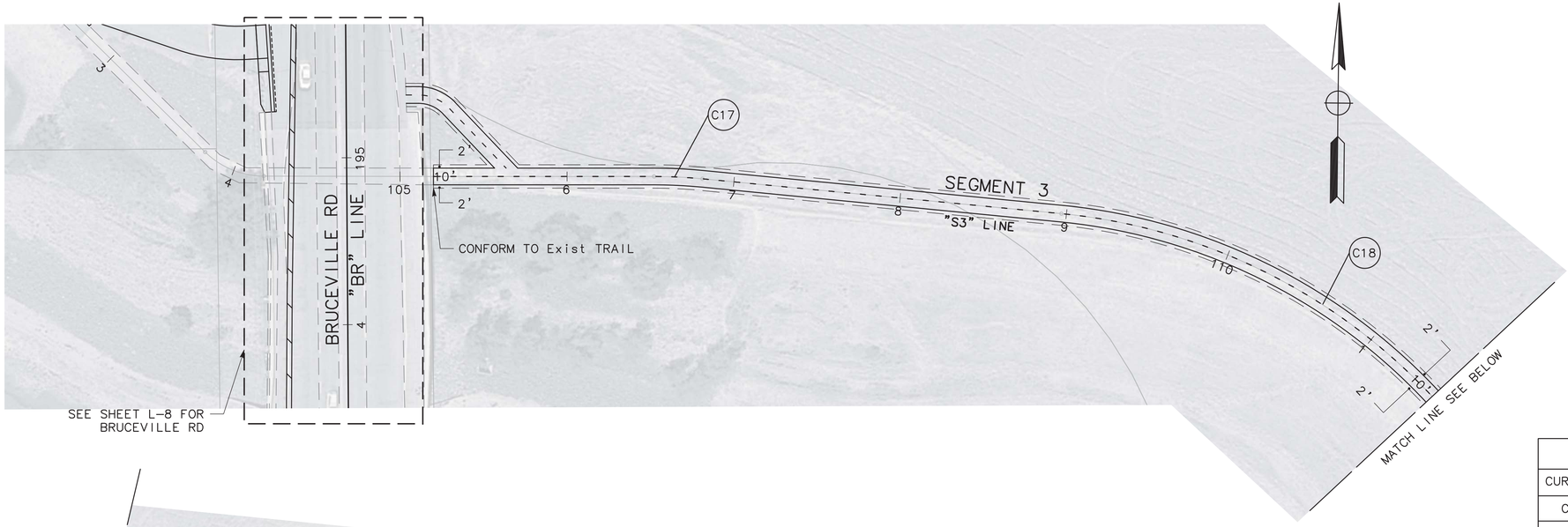
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LAYOUTS

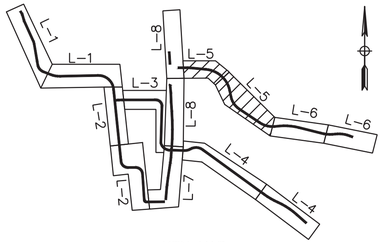
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PROJECT No.: WTL019
DRAWING NUMBER: L-4
SHEET: 7 OF 18

WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

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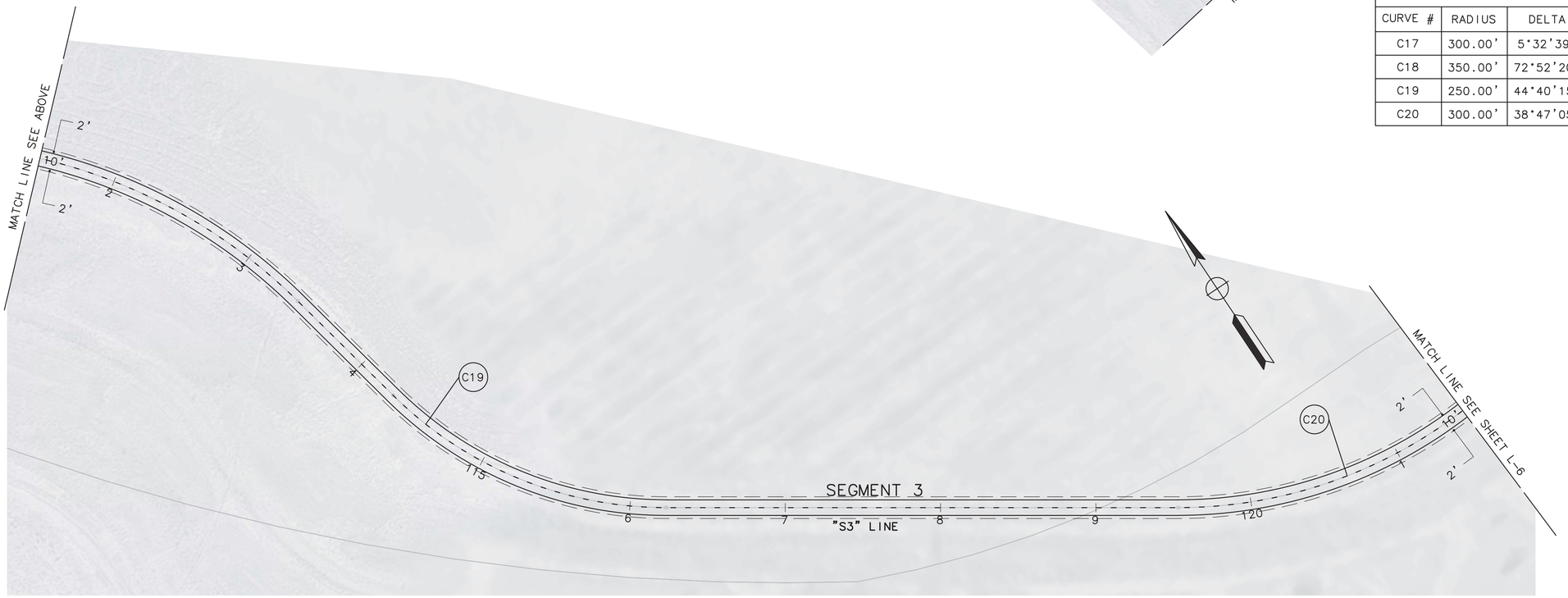
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CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C17	300.00'	5°32'39"	14.53'	29.03'
C18	350.00'	72°52'20"	258.38'	445.15'
C19	250.00'	44°40'15"	102.71'	194.91'
C20	300.00'	38°47'05"	105.60'	203.08'



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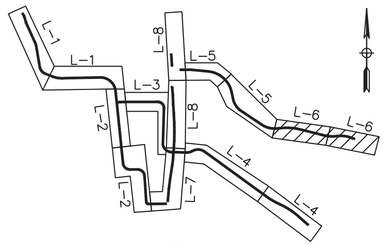
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SCALE: 1"=40'	SHEET: 8 OF 18
PROJECT No.: WTL019	

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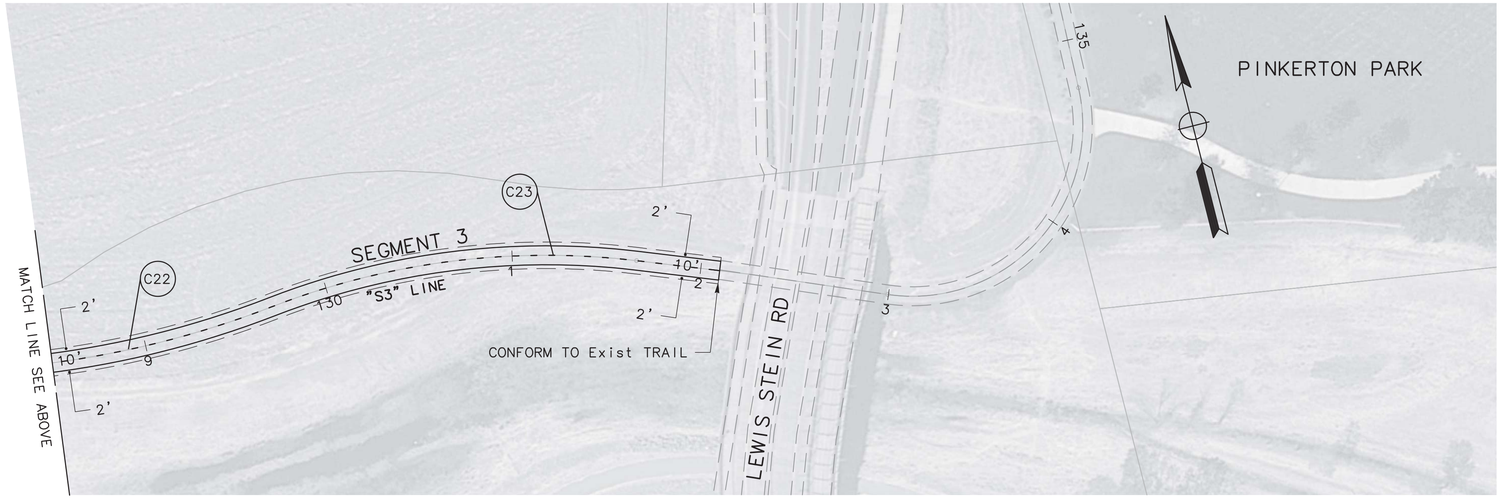
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CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C21	750.00'	19°13'33"	127.03'	251.66'
C22	500.00'	21°12'50"	93.64'	185.13'
C23	400.00'	28°03'02"	99.92'	195.83'



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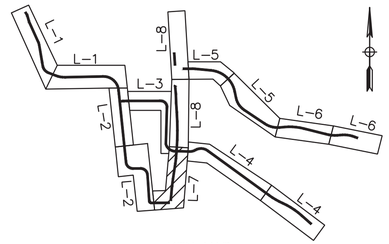
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LAYOUTS

DATE: APRIL 10, 2019
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SHEET: 9 OF 18

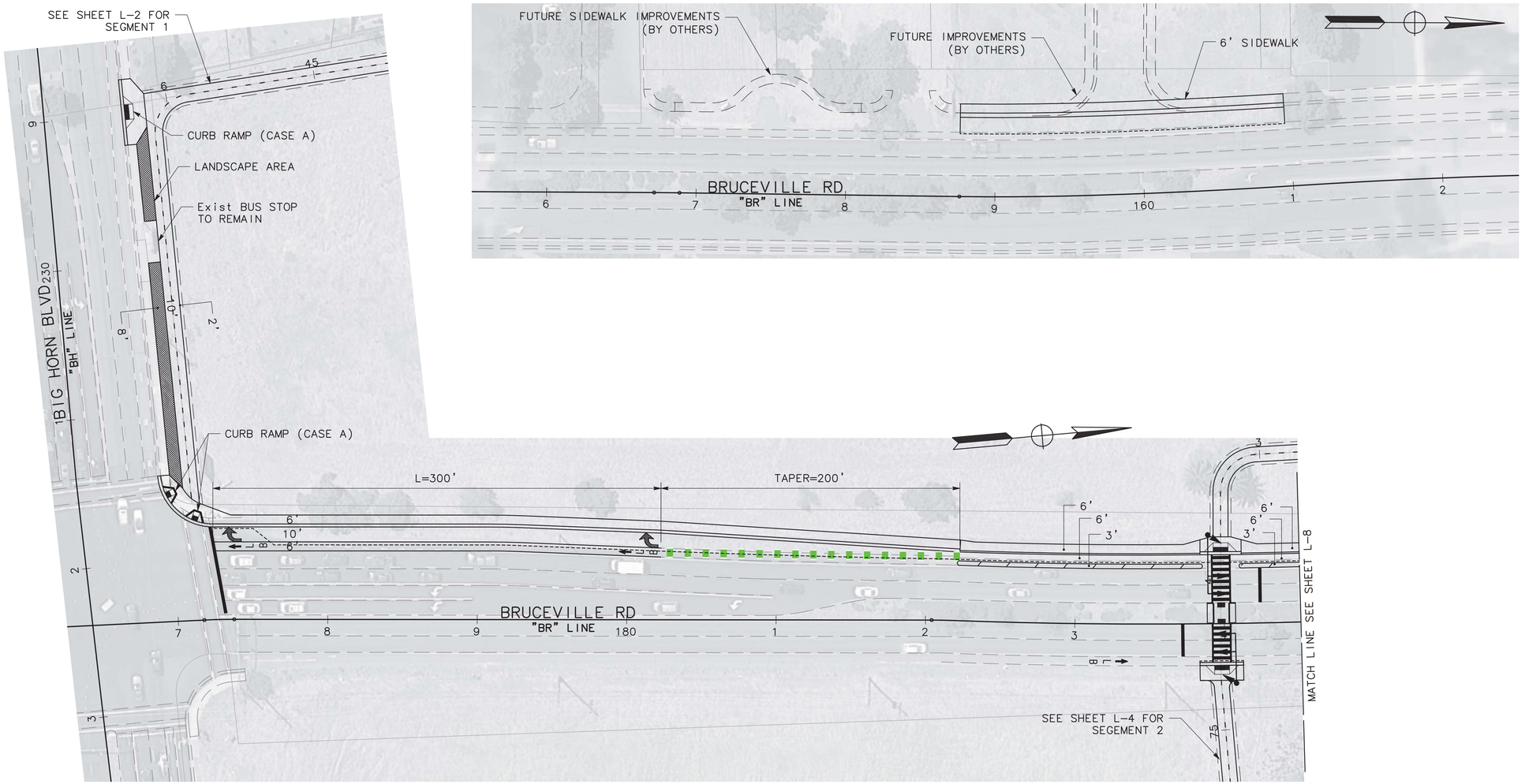
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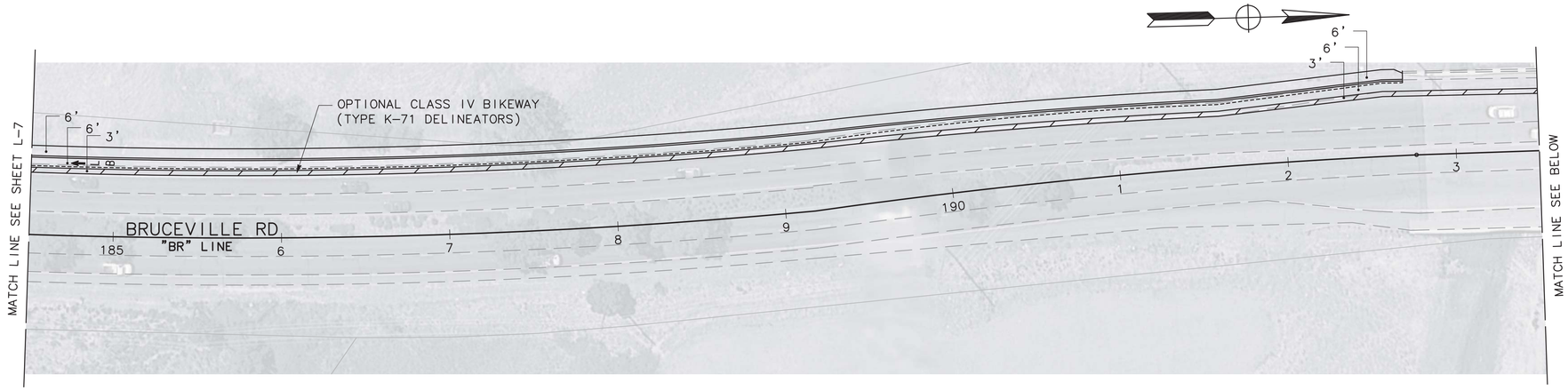
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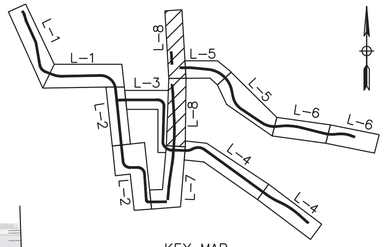
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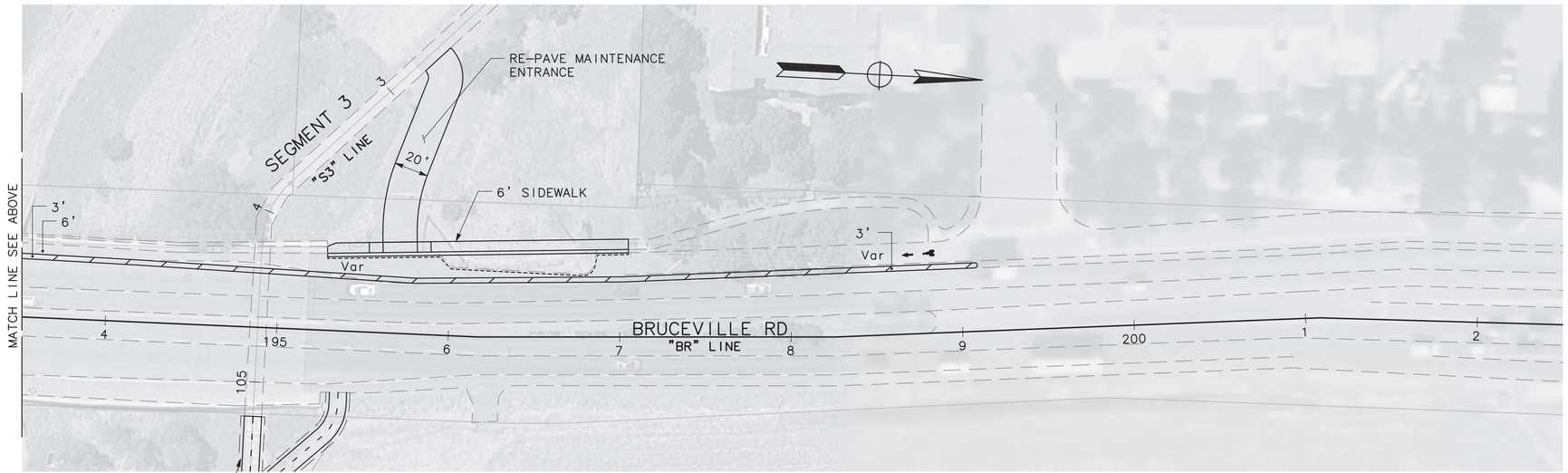
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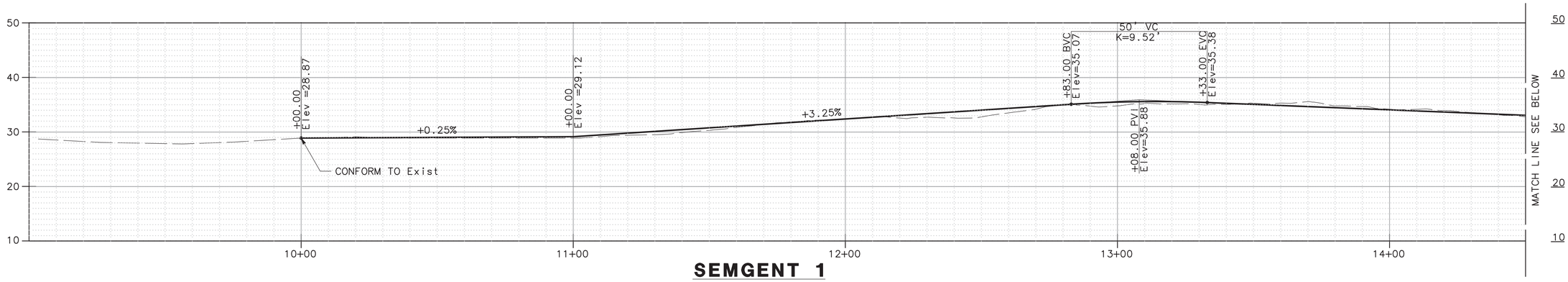
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SHEET: 11 OF 18

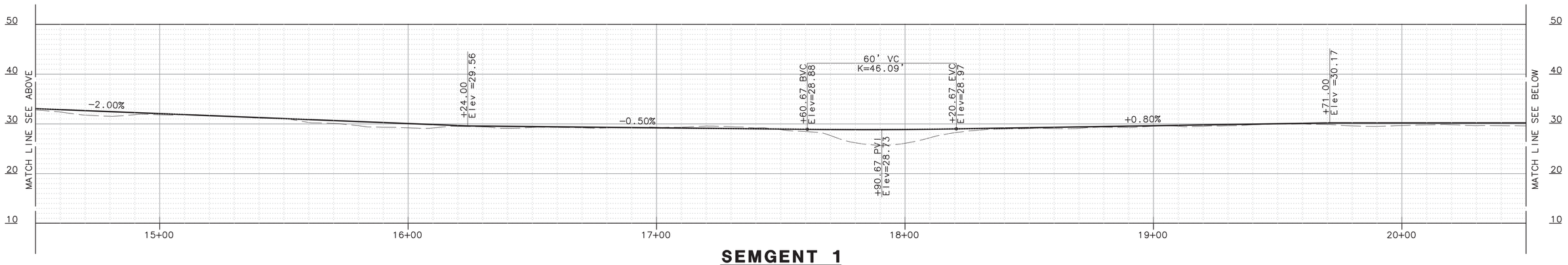
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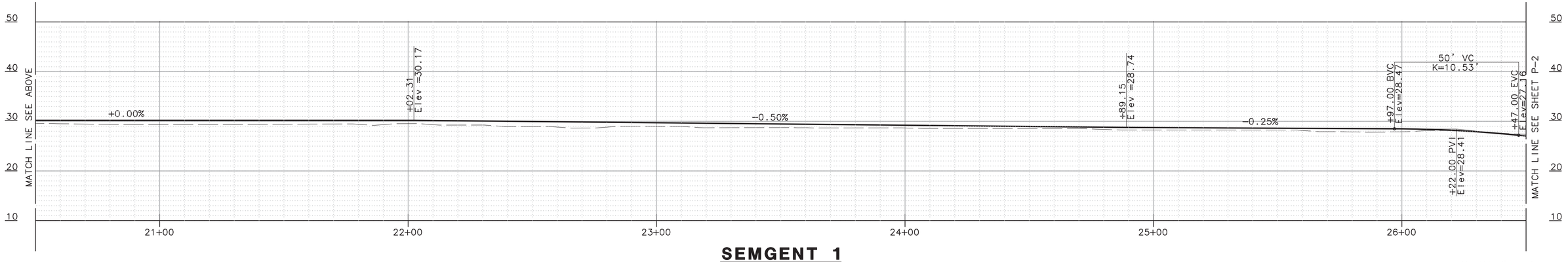
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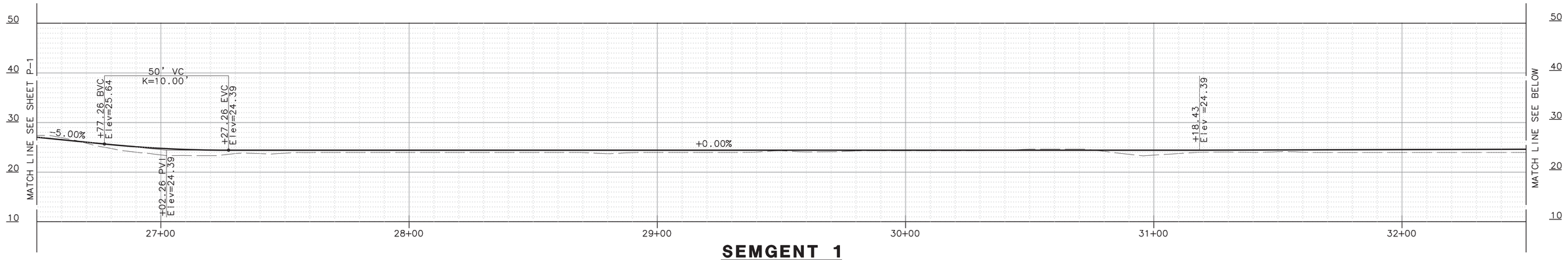
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LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS
PROFILES

DATE: APRIL 10, 2019
SCALE: HORIZ:1"=20'
VERT:1"=10'
PROJECT No.: WTL019
DRAWING NUMBER: P-1
SHEET: 12 OF 18

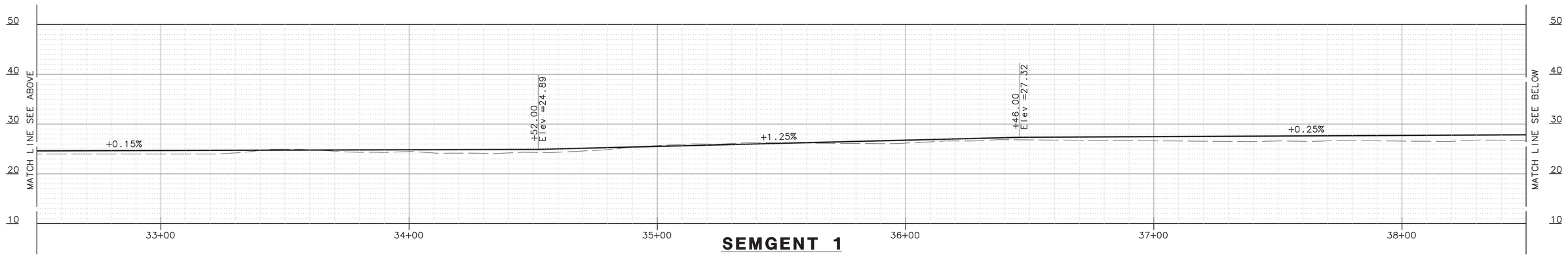
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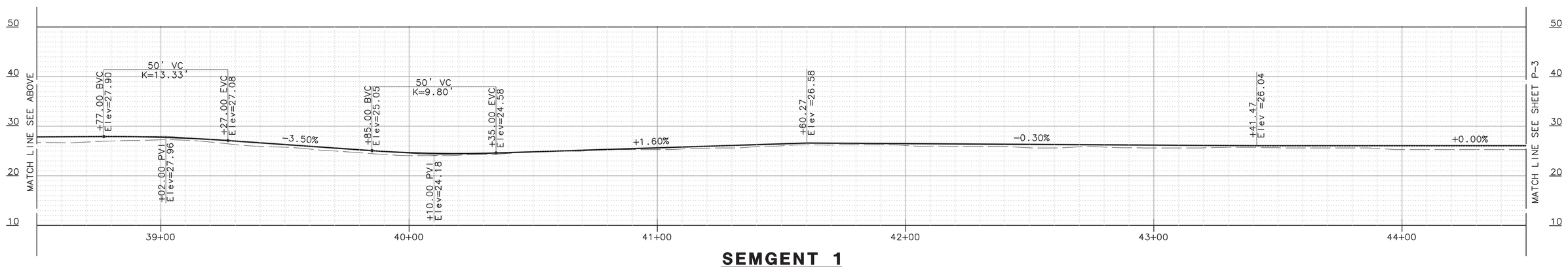
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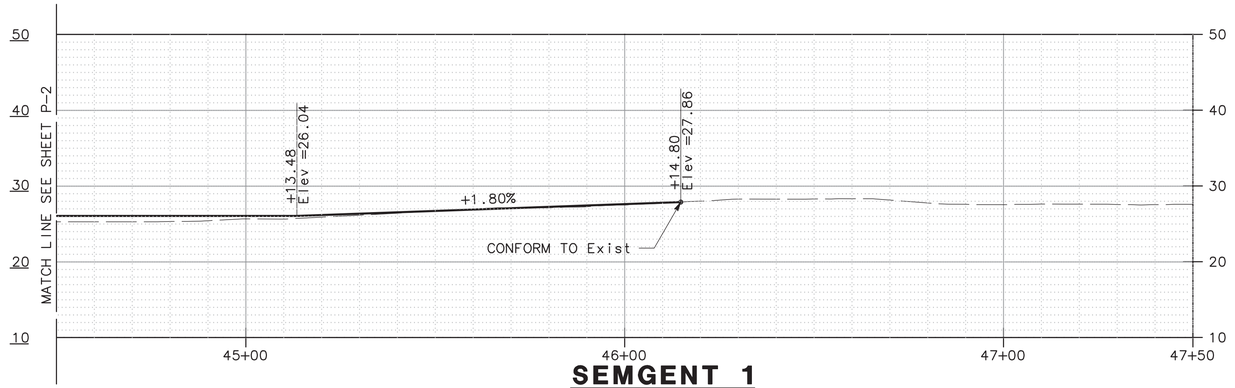
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PROFILES

DATE: APRIL 10, 2019
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PROJECT No.: WTL019
DRAWING NUMBER: P-2
SHEET: 13 OF 18

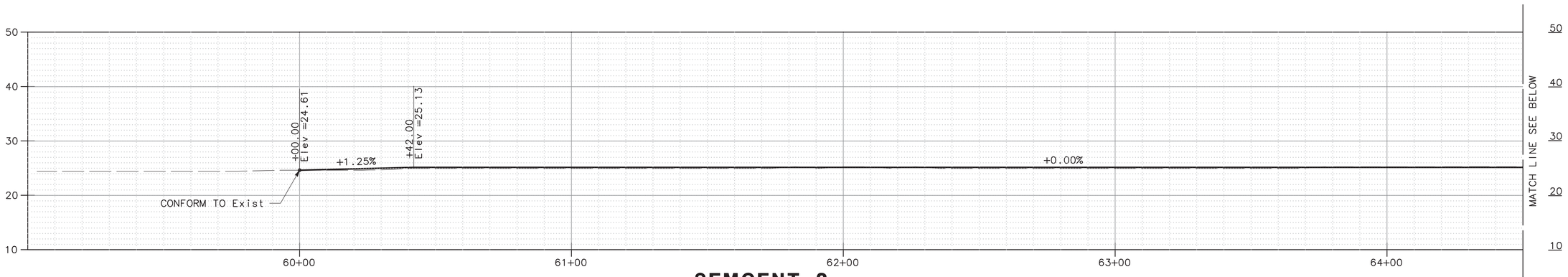
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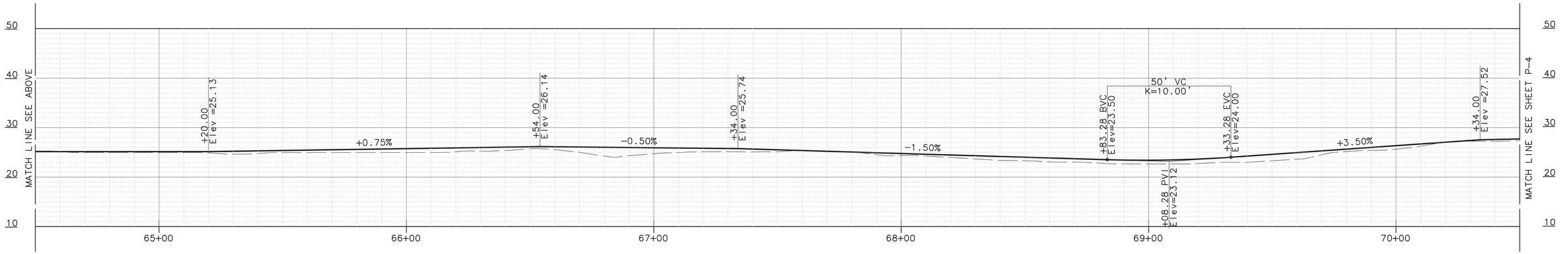
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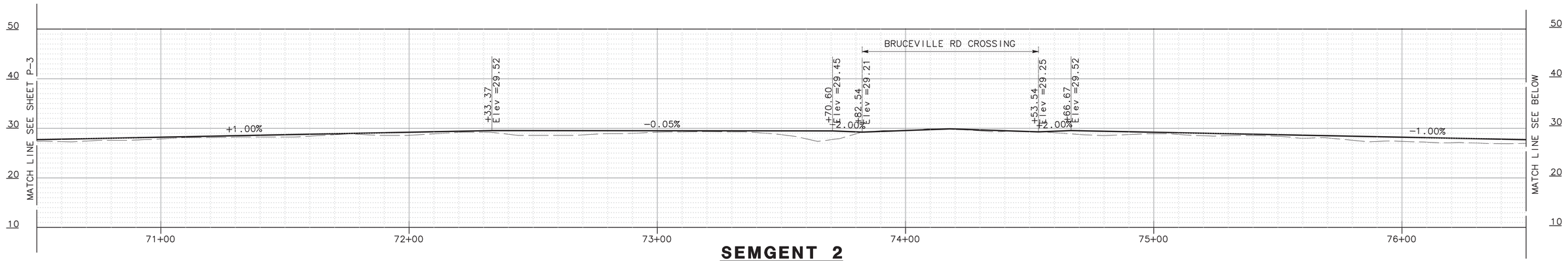
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SHEET: 14 OF 18

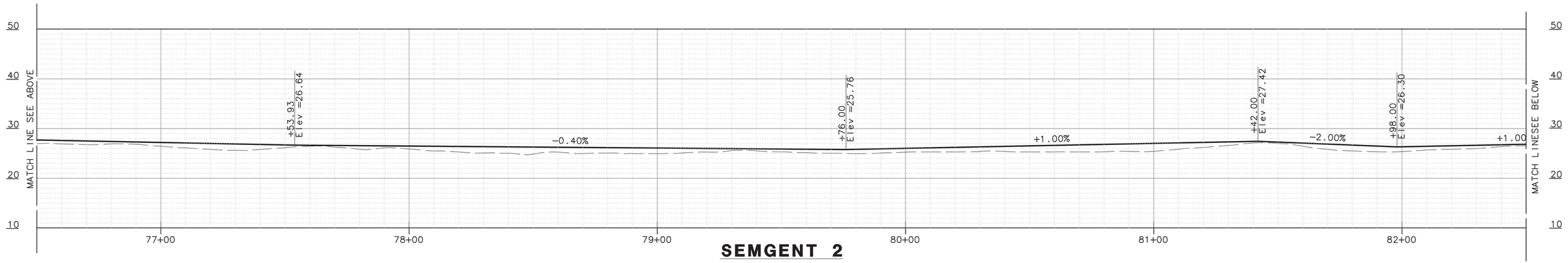
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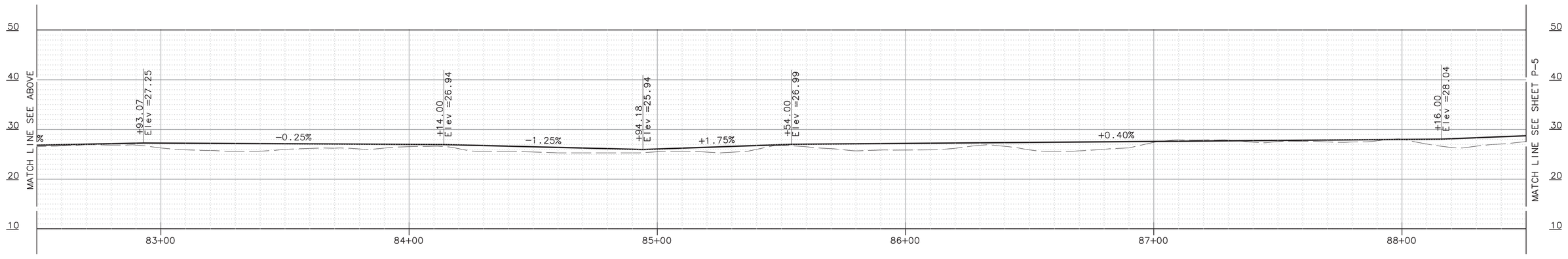
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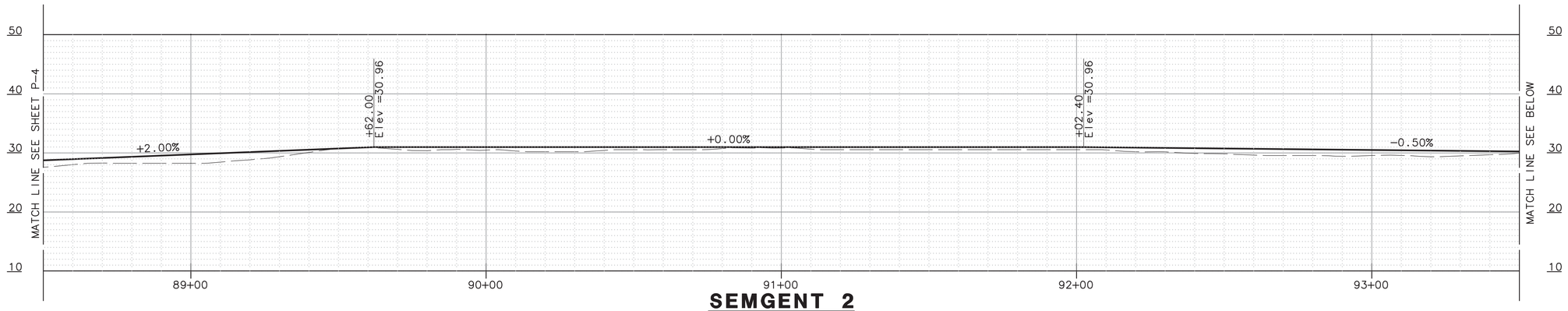
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DRAWING NUMBER: P-4
SHEET: 15 OF 18

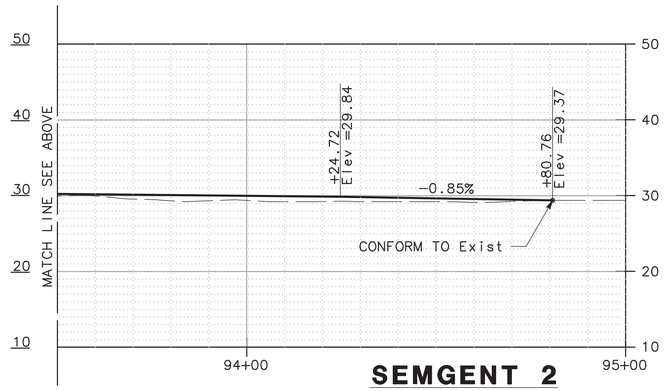
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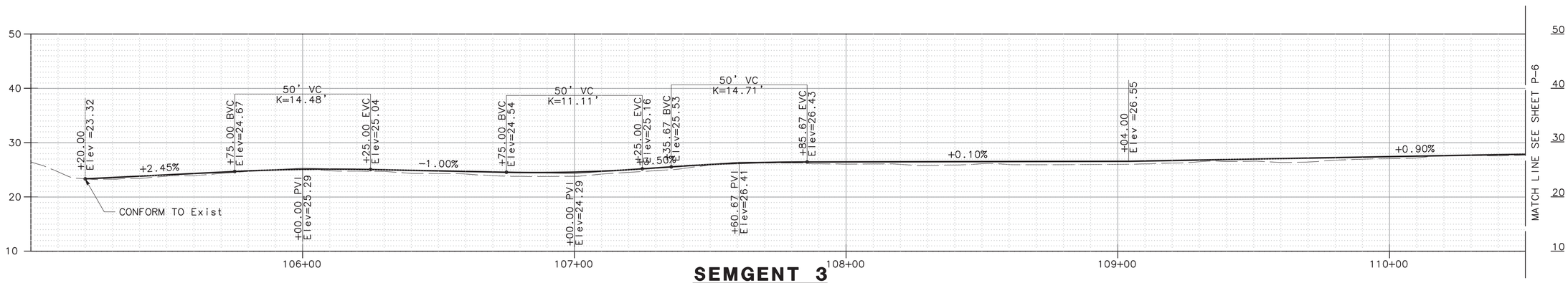
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(916) 381-9100 FAX:(916)381-9180
markthomas.com

DESIGNED: J. HERNANDEZ
DRAWN: Z. HUBBARD
CHECKED: A. SILVA

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DEPARTMENT OF PUBLIC WORKS
8401 LAGUNA PALMS WAY
ELK GROVE, CALIFORNIA 95758
916.683.7111

WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

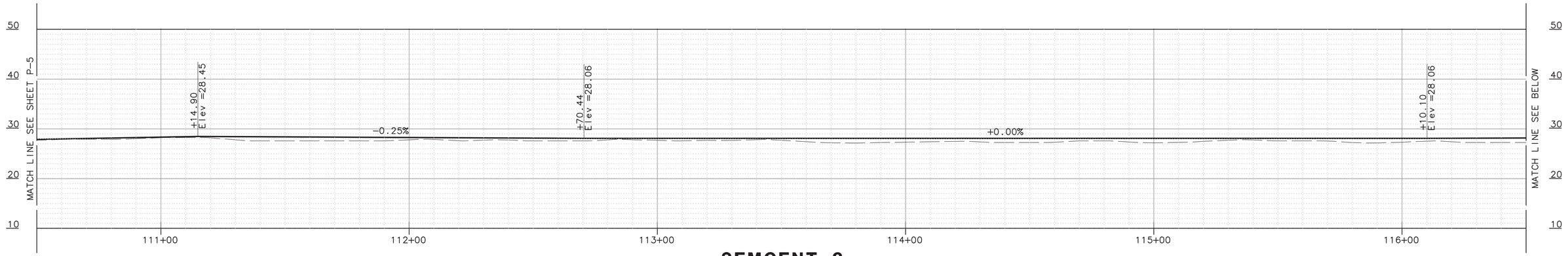
PROFILES

DATE: APRIL 10, 2019
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VERT:1"=10'
PROJECT No.: WTL019
DRAWING NUMBER: P-5
SHEET: 16 OF 18

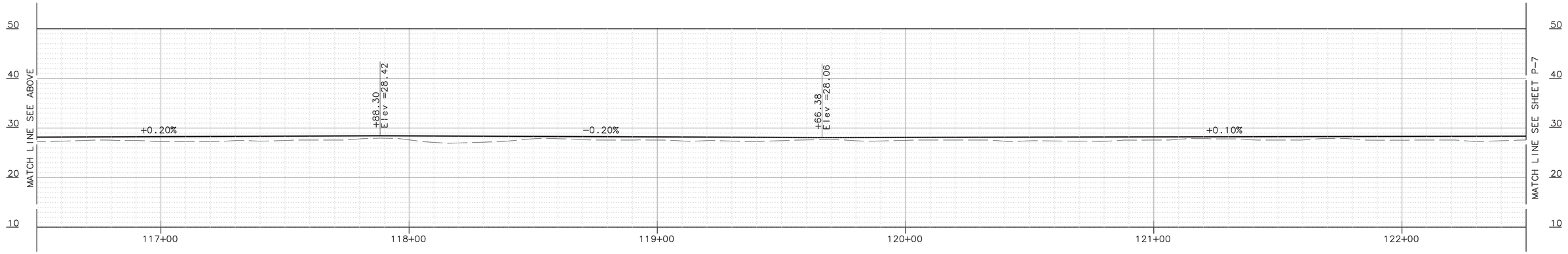
WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

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SEMGENT 3



SEMGENT 3

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WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

PROFILES

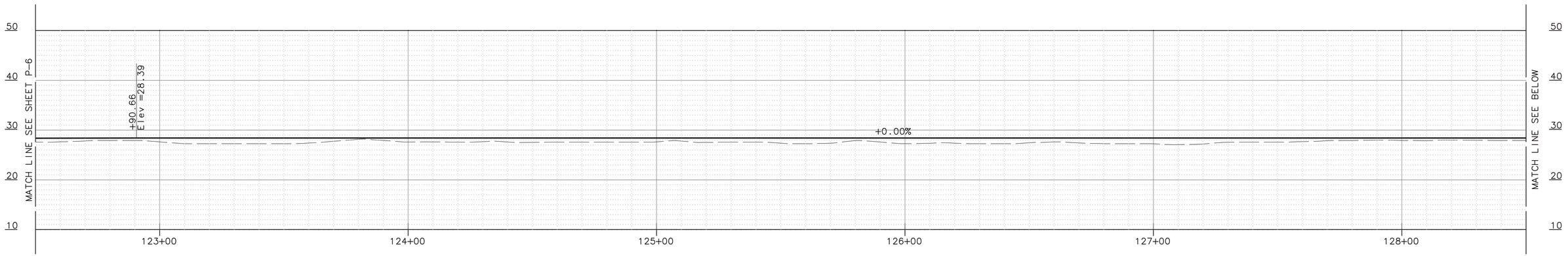
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VERT:1"=10'
PROJECT No.: WTL019

DRAWING NUMBER: P-6
SHEET: 17 OF 18

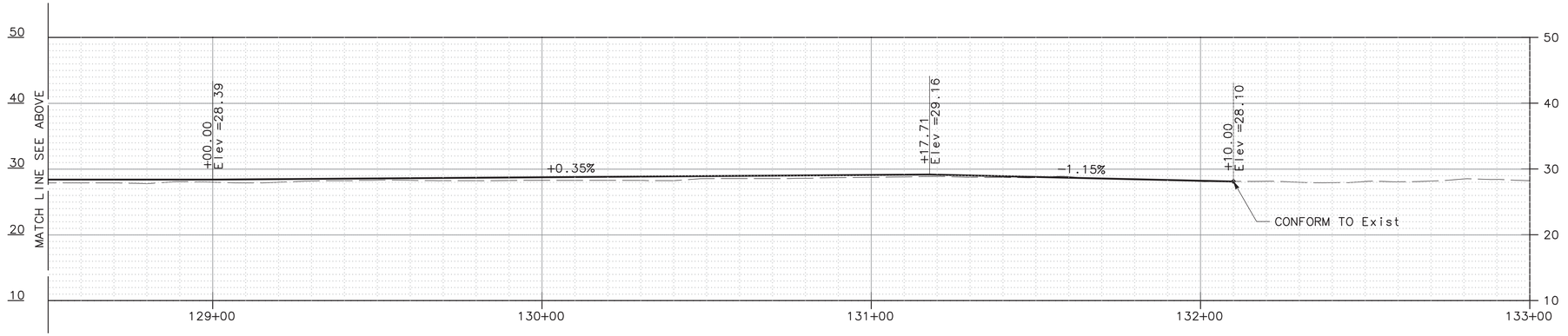
WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

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SEMGENT 3



SEMGENT 3

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WTL019
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

PROFILES

DATE: APRIL 10, 2019
SCALE: HORIZ:1"=20'
VERT:1"=10'
PROJECT No.: WTL019
DRAWING NUMBER: P-7
SHEET: 18 OF 18

WTL019 - LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS

35% SUBMITTAL - APRIL, 2019 - Reviewed by/ date:

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IS/MND Attachment H

Construction Noise Review

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Rincon Consultants, Inc.

Environmental Scientists *Planners* *Engineers*

M E M O R A N D U M

■ **Sacramento**

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Fresno:	(559) 228 9925	**San Diego:**	(760) 918 9444
Los Angeles:	(213) 788 4842	**San Luis Obispo:**	(805) 547 0900
Monterey:	(831) 333 0310	**Santa Barbara:**	(805) 319 4092
Oakland:	(510) 834 4455	**Santa Cruz:**	(831) 440 3899
Redlands:	(909) 253 0705	**Ventura:**	(805) 644 4455
Riverside:	(951) 782-0061		

access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. Development of the Proposed Project would provide greater accessibility to the existing trail system within the City of Elk Grove and make trails directly accessible to additional homes.

III. Alternatives

Build Alternative/Proposed Project

Project Components

Development of the proposed Project would include two segments (0.94 mile) of new asphalt trail (Class I Bikeway) with decomposed granite shoulders, new sidewalks, signs, striping, and pavement markings (Proposed Project) (**Figure 3**). A trail extension is proposed from Bruceville Road adjacent and parallel to Big Horn Boulevard (approximately 0.16 mile). This trail segment would cross at-grade with Bruceville Road at an existing signal-controlled crosswalks. Additional trail gap closures between Bruceville Road, Mannington Street, and Center Parkway would complete connections to existing trails that extend further north and west into the City of Sacramento, thereby connecting thousands of residents to an interconnected trail system between two cities and multiple neighborhoods alike. Sidewalk improvements would be constructed along Bruceville Road between Big Horn Boulevard and Center Parkway (approximately 0.3 mile) and between Laguna Boulevard and Di Lusso Drive (approximately 0.04 mile).

Paved surfaces would be Hot Mixed Asphalt (HMA) with stabilized Decomposed Granite (DG) shoulders relying on base and sub base as needed. Base material would consist of aggregate base, with a sub base of either existing or compacted native material or a treated native material. Treatments could include cement or lime. Sidewalk widenings on Bruceville Road would require sawcutting the existing road and cutting into the embankment. Proposed fill slopes would vary in height, ranging from one to four feet.

Trail segments may include amenities including, but not limited to, concrete entry nodes, post and cable fencing, landscaping, benches, and interpretive signage.

Trail Design

As shown on **Figure 3**, two trail segments would be developed as a 10-foot-wide path with 2-foot-wide shoulders following existing informal trails where feasible and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed with a 4:1 slope.

Segment 1

Segment 1 would be constructed west of Bruceville Road and north of Big Horn Boulevard. The trail would parallel existing residential development to the west for a length of approximately 0.75 mile trending northward from the existing sidewalk at Big Horn Boulevard and path near Mannington Street (**Figure 3**). The vertical profile would roughly follow the natural topography with excavation being limited to 2-foot-deep for subbase. Grading limits would be contained within a 36- to 44-foot-wide disturbance corridor for Segment 1.

Segment 2

Segment 2 would be constructed east of Bruceville Road adjacent and parallel to Big Horn Boulevard for an overall length of approximately 0.16 mile (**Figure 3**). It is anticipated that where the Segment 2 alignment terminates, compliance with City-required Conditions of Approval for the Trojan Storage II Project (currently under construction) will result in the construction of a connecting trail segment to Lewis Stein Road. The new trail will use the existing at-grade crossing at Bruceville Road and Big Horn Boulevard to connect to Segment 1. The vertical profile would roughly follow the natural topography with excavation being limited to a maximum 2-foot depth for subbase. Grading limits would be contained within a 34- to 40-foot-wide disturbance corridor for Segment 2.

Roads and Sidewalks

Proposed sidewalk improvements would be constructed on the west side of Bruceville Road. Approximately 1,600 feet of sidewalk would be constructed between Big Horn Boulevard and the Bruceville Road Bridge over Laguna Creek (Bridge No. 24C0405) and 180 feet of sidewalk would be constructed from the bridge to existing sidewalk. In addition, the guardrail at the bridge would be replaced and would roughly correspond to the back of sidewalk in this location. New Americans with Disabilities Act (ADA) - compliant ramps would be constructed at Mannington Street and at Mannington Street/Wallbridge Way.

Approximately 230 feet of sidewalk would be constructed at an existing gap in the sidewalk between Di Lusso Drive and Laguna Boulevard. At this location, the roadway surface at Bruceville Road would be extended to match up with the proposed sidewalk.

Culvert Crossings and Hydrology

The Proposed Project would maintain existing grades and drainage patterns to the greatest extent feasible. Side slopes would be constructed with a 4:1 slope. To maintain the existing drainage patterns, culverts may be used to convey water from one side of the trail to the other during more intense rain events. These culverts would be located in upland areas and sized based on existing topographic

information and would include rock slope protection and flared end sections to reduce erosion and provide energy dissipation measures.

Road Crossings and Signage

Trail pavement would be delineated by distinct paint, markings, and signs consistent with City of Elk Grove standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City may also elect to provide wayfinding signs. According to the Bicycle, Pedestrian, and Trails Master Plan (BPTMP), all bicycle striping and wayfinding signs would also conform to the Caltrans Highway Design Manual chapter 1000 (GHD, Inc. 2021).

Utilities

Utility coordination would be required to relocate a utility guy-pole that is in conflict with the roadway/sidewalk widening on the west side of Bruceville Road. This pole would be relocated to another location either within the City's right of way or within a new utility easement. No other utility relocations are anticipated for this Project other than potentially adjusting existing utility lids to new grades.

Construction

Construction of the Proposed Project would commence in summer of 2025 and would take approximately seven to nine months to complete.

No-Build Alternative/No-Project Alternative

Under the No-Build, or "No-Project" Alternative, the trails and sidewalks would not be constructed. Gaps in the City's trail system and sidewalks would remain.

IV. Existing Uses and Noise Environment

The Proposed Project is surrounded by a variety of land uses including single family residences, institutional uses such as the Barbara Morse Wackford Community & Aquatic Complex, and commercial land uses, including retail and restaurants.

A field noise study was conducted in accordance with recommended procedures in the Caltrans Technical Noise Supplement (TeNS) to quantify the existing noise environment and gather data to input into the Roadway Construction Noise Model. A short-term measurement location was selected to represent sensitive receptors within the Project area and selected to determine existing ambient noise in the Project vicinity. The measurement location is identified in **Figure 4** attached. Noise Measurement

Location 1 (NM1) north of Big Horn Boulevard represents noise levels at adjacent single family residences.

One short-term measurement was conducted in the vicinity of the Project alignment and adjacent residential land uses on Friday, May 3, 2019, using an ANSI Type II Sound Level Meter. The noise measurement was conducted over a 15-minute period and generally characterizes existing ambient noise levels in the vicinity of the Project alignment. During the short-term measurement, field staff attended the meter. The calibration of the meter was checked before the measurements. Wind speed was recorded at 0 miles per hour (mph) during the measurements. Measurements were taken in light cloud cover. Measurements were taken in accordance with Caltrans recommended protocols per the Technical Noise Supplement (September 2013).

Table 1 summarizes the results of the short-term noise monitoring conducted in the Project area. Traffic was the main contributor of noise at the measurement location. Existing noise levels result primarily from traffic along Big Horn Boulevard and Bruceville Road.

Table 1 Summary of Short-Term Noise Measurements

NM1: Bruceville Road	Residential	11:22 – 11:36 a.m.	15	340[1], 390[2]	47.4	57.6	40

[1] Distance from Big Horn Boulevard

[2] Distance from Bruceville Road

L_{eq} = average of the sound energy occurring over a specified period

Note: Refer to **Figure 4** for measurement location. See Attachment 2 for noise measurement data.

As shown in Table 1, noise-sensitive land uses adjacent to the Project site currently are exposed to ambient noise levels of approximately 47 dBA L_{eq} with maximum (L_{max}) levels of approximately 58 dBA L_{max}.

Regulatory Setting

Federal

23 CFR 772. Provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and Federal-aid highway projects. Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects.

FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly

changes either the horizontal or vertical alignment of the highway. The following projects are also considered to be Type I projects:

- The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high-occupancy vehicle (HOV) lane, high-occupancy toll (HOT) lane, bus lane, or truck climbing lane.
- The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane.
- The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange.
- Restriping existing pavement for the purpose of adding a through traffic lane or an auxiliary lane.
- The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.

If a project is determined to be a Type I project under this definition, the entire project area as defined in the environmental document is a Type I project.

A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. The Laguna Creek Trail and Bruceville Road Sidewalk Improvements Project is a Type III project that would not result in an increase in roadway capacity. Type III projects do not require an analysis of long-term changes to the noise environment.

State

Noise associated with construction is controlled by Caltrans Standard Specifications (2022) Section 14-8.02, “Noise Control,” which states the following:

- Control and monitor noise resulting from work activities
- Do not exceed 86 dBA L_{max} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

Sensitive Receptors

Land uses identified in the Project site vicinity are primarily residential and commercial. Typically, noise sensitive land uses include single-family residential, multiple-family residential, churches, hospitals and similar health care institutions, convalescent homes, libraries, and school classroom areas. Noise-sensitive receptors in the Project vicinity include single-family residences near the proposed trail alignment and construction staging area and multi-family residences north of proposed sidewalk improvements on Bruceville Road. The closest residential receptors are single-family residences which have property boundaries approximately 15 feet west and south of the proposed alignment. The property line for multi-family residences is located approximately 80 feet northwest of the proposed sidewalk improvements.

V. Construction Noise

During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction, which includes residential receptors. The closest residential receptors are single family residences approximately 15 feet west and south of the proposed alignment and multi-family residences approximately 80 feet northwest of the proposed sidewalk improvements on Bruceville Road.

This construction noise analysis assumes the use of heavy equipment using equipment and construction phase information provided by the Project engineer. Construction equipment included in this analysis is described in Table 2, and includes clearing and grubbing (site preparation) equipment, grading equipment, paving, and architectural coasting equipment.[1]

Roadway Construction Noise Model

The FHWA Roadway Construction Noise Model (RCNM) was used to estimate the Project equipment noise levels at the nearest sensitive receptors for each phase of Project construction. RCNM uses a compilation of empirical data and the application of acoustical propagation formulas to predict construction noise (FHWA 2017). As described in *Sound Propagation*, construction noise levels would attenuate at a rate of approximately 6 dBA per doubling of distance. Each phase of Project construction relies on a specific assemblage of construction equipment required for specific tasks, such as site preparation, grading, architectural coating and paving.

Table 2 summarizes noise levels produced by the specific assemblage of equipment expected to be used for each phase at distances of 15, 50, and 80 feet from the Project site. These distances correspond to property line of noise-sensitive receptors in the *Sensitive Receptors* subsection, above. Table 2 also shows noise levels at a distance of 50 feet, which corresponds to the distance associated with Caltrans' nighttime construction noise standard. When the frequency of equipment usage was unknown, default frequency percentages from RCNM were used.

Due to site and equipment limitations, only a limited amount of equipment can operate near a given location at a particular time. In addition, construction equipment estimates used for the analysis for site preparation, grading, architectural coating and paving noise levels are representative of worse case conditions, since it is assumed that equipment would operate simultaneously during the work day. Estimated construction noise levels shown in Table 2 are conservative, and do not account for intervening barriers that may further attenuate the noise level at noise receptors, such as walls, structures, or topography. Therefore, the noise levels presented in Table 2 represent a worst-reasonable-case estimate of potential construction noise.

[1] An architectural coating phase was not provided by the project engineer. However, the phase has been added to this analysis to account for striping of the proposed trail.

Table 2 RCNM Construction Equipment Noise

Site Preparation	Scraper, Dump Truck, Saw Cutter, Small Hand Tools (<5 horsepower), Grader	98.1	100.0	87.6	89.6	83.5	85.5
Grading	Excavator, Compactor, Grader, Dump Trucks (2), Small Hand Tools (<5 horsepower)	95.0	95.5	84.5	85.0	80.4	80.9
Paving	Paver	84.7	87.7	74.2	77.2	70.1	73.1
Architectural Coating	Air Compressor	90.1	94.1	79.6	83.6	75.5	79.5

See Attachment 3 for RCNM equipment and noise data sheets

[1] L_{eq} represents the combined average noise level of all equipment over a one-hour period. Because L_{eq} combines noise from multiple pieces of equipment operating simultaneously, calculated Leq may be higher than L_{max}.

[2] L_{max} represents the instantaneous peak noise level of the single loudest piece of equipment. Because L_{max} is limited to single pieces of equipment, L_{max} may be lower than calculated Leq.

Construction activities would be temporary in nature. The nearest sensitive receptors to the Project site are single family residences west and south of the proposed alignment, approximately 15 feet from the Project site. Receptors within 15 feet of construction activity would experience exterior construction noise up to approximately 98 dBA L_{eq} at their property lines during the site preparation phase and from approximately 85 to 95 dBA L_{eq} at their property lines during the grading, paving, and architectural coating phases. Receptors within 80 feet of construction activity would experience exterior construction noise up to approximately 84 dBA L_{eq} at their property lines during the site preparation phase and from approximately 70 dBA L_{eq} to 80 dBA L_{eq} at their property lines during the grading, paving, and architectural coasting phases. The manner in which buildings in California are constructed generally provides for an exterior-to-interior transmission loss of about 25 dBA with closed windows and doors (FTA 2018). Therefore, interior noise levels would not be expected to exceed approximately 73 dBA L_{eq} during construction activity.[2] Construction activity would be temporary, occurring over approximately a seven month period, and avoidance and minimization measures for construction noise are recommended below.

[2] Interior noise levels are based on the distance to property lines, not the distance to structures. Single and multi-family residences are set back from the property line. Therefore, this analysis provides a conservative estimate of interior noise levels.

Caltrans Standard Specifications Section 14-8.02, "Noise Control," states noise levels generated during construction shall not exceed 86 L_{max} 50 feet from the Project site from 9:00 p.m. to 6:00 a.m.

During the loudest phases of construction, based on the results of the construction noise estimates shown in Table 2, the maximum noise level at 50 feet would exceed 86 dBA L_{max}. Because construction activity would not occur outside of daytime hours, construction noise would not exceed the 86 dBA L_{max} Caltrans standard specification for nighttime construction operations 50 feet from the Project site.

VI. Minimization Measures

Avoidance and Minimization Measures NOI-1 and NOI-2 would be implemented as standards per City and Caltrans requirements. Avoidance and Minimization Measures NOI-3 and NOI-4 are recommended to be applied to the Project to reduce temporary construction noise levels at nearby sensitive receptors.

NOI-1: City of Elk Grove Standards. Construction activity should be limited to daytime hours, based on the City's Municipal Code, limiting construction activities to 7:00 a.m. and 7:00 p.m. when located adjacent to residential land uses and 6:00 a.m. and 8:00 p.m. when not adjacent to residential land uses.

NOI-2: Caltrans Standard Specifications. If work is performed at nighttime, construction noise should be conducted in accordance with Caltrans Standard Specifications Section 14.8-02 restricting nighttime noise levels. The provisions of Caltrans Standard Specifications, Section 14-8.02 "Noise Control" require the following:

- Control and monitor noise resulting from work activities
- Do not exceed 86 dBA L_{max} at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

In addition, as directed by the Project Engineer, the contractor should implement appropriate additional noise reduction measures for construction activity, including changing the location of stationary construction equipment, turning off idling equipment, use of sound blankets on individual components of construction equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.

NOI-3: Construction Equipment Sound Control. All internal combustion engines, including trucks, should be equipped with the manufacturer-recommended mufflers and silencing devices. Operation of an internal combustion engine shall not occur on the job site without the appropriate muffler.

NOI-4: Neighborhood Notification Prior to Construction. At least twenty (20) days prior to commencement of construction, the contractor should provide written notice to all property owners, businesses, and residents within 300 feet of the Project area. The notice should contain a description of the Project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s).

With the implementation of temporary construction noise avoidance and minimization measures no substantial adverse noise impacts from construction activity are anticipated; additional short-term construction noise investigation is not required.

Vibration

During development of the Project, construction equipment including a compactor, excavator, grader, trucks, and a scraper may be used in close proximity to vibration sensitive receptors, including single-family residences located approximately 15 feet west and south of the Project alignment. To provide a conservative analysis of potential vibration effects, this analysis uses the Caltrans vibration level threshold of 0.24 in/sec PPV at which transient vibration sources, such as construction equipment, are considered to be distinctly perceptible (Caltrans 2020). Vibration source levels from construction equipment used for the Project are shown in Table 3.

As shown in Table 3, the construction equipment that would be used during Project development would generate vibration levels up to 0.133 in/sec PPV as measured at a distance of 15 feet from the operating machinery. Caltrans' *Transportation and Construction Vibration Manual* (2020) provides a distance calculation methodology to estimate the groundborne vibration level at distances closer from the source than the reference distance of 25 feet shown in Table 3:

$$PPV = PPVref \times (25/D)^{n}$$

Where:

PPV = vibration level (in amplitude)
PPVref = reference vibration level (at 25 feet)
D = distance from vibration-generating equipment to the receptor
n = constant value related to the attenuation rate through the ground[3]

[3] The n-value is assumed to be 1.1, Caltrans' recommended value for conservative analysis.

Table 3 Vibration Levels of Common Types of Construction Equipment

Compactor	0.050	0.088
Excavator	0.040	0.070
Loaded Trucks	0.076	0.133
Paver	0.063	0.111
Pneumatic Tool	0.040	0.070
Scraper/Grader	0.057	0.100

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018

During Project construction, the closest sensitive receptors would be located approximately 15 feet from the potential active construction areas. At this distance, when the heaviest construction equipment operates at the edge of the Project construction limits, people in their backyards may be exposed to groundborne vibration levels up to 0.133 in/sec PPV. This groundborne vibration level is below the Caltrans distinctly perceptible limit for transient vibration sources. Therefore, construction related ground-borne vibration impacts would not exceed applicable standards with implementation of the Project.

VII. Summary

The Project would not result in perceptible transient vibration at nearby sensitive receptors from construction related groundborne vibration.

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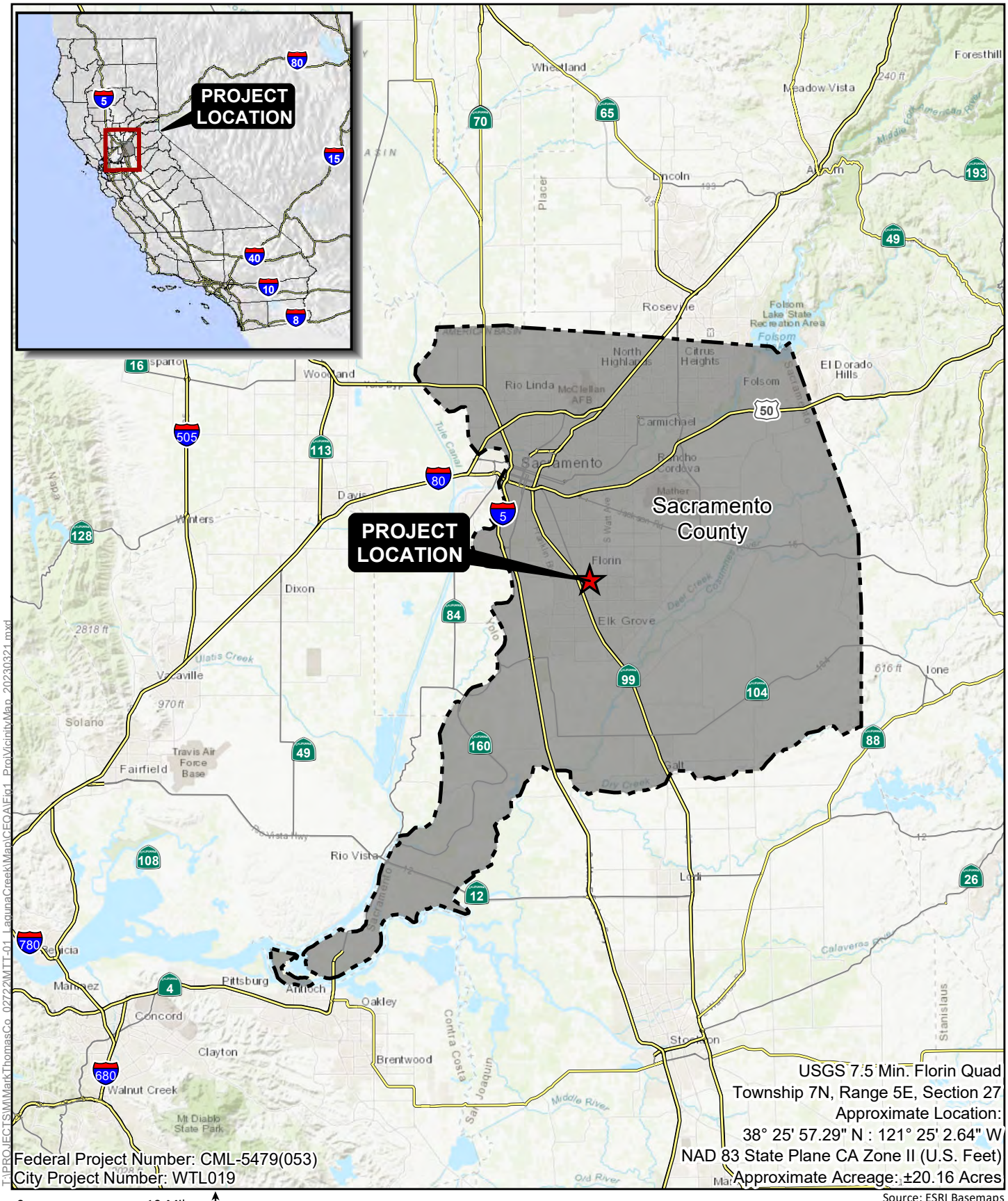
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Attachment 1

Figures



USGS 7.5 Min. Florin Quad
Township 7N, Range 5E, Section 27
Approximate Location:
38° 25' 57.29" N : 121° 25' 2.64" W
NAD 83 State Plane CA Zone II (U.S. Feet)
Approximate Acreage: ±20.16 Acres

Federal Project Number: CML-5479(053)
City Project Number: WTL019

Source: ESRI Basemaps

0 10 Miles

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HELIX Environmental Planning

Project Vicinity Map

Figure 1



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Source: Aerial Imagery (Nearmap 3/15/2023)

HELIX Environmental Planning

Proposed Project

Figure 3

Attachment 2

Noise Measurement Data

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 57.6 - 2019/05/03 11:36:20
- Level Range : 40-100
- SEL : 76.9
- Leq : 47.4
-

No.s	Date Time	(dB)				
1	2019/05/03 11:22:03	45.4	47.1	49.4	46.5	43.9
6	2019/05/03 11:22:13	42.9	42.7	43.4	44.2	44.7
11	2019/05/03 11:22:23	45.5	45.0	45.0	45.3	46.6
16	2019/05/03 11:22:33	50.3	50.0	49.9	48.9	50.1
21	2019/05/03 11:22:43	47.0	46.0	45.5	45.0	45.0
26	2019/05/03 11:22:53	44.3	43.3	43.2	42.8	42.8
31	2019/05/03 11:23:03	43.8	43.0	42.7	42.7	42.9
36	2019/05/03 11:23:13	43.2	43.5	42.8	42.4	42.9
41	2019/05/03 11:23:23	43.6	43.9	44.1	47.2	47.4
46	2019/05/03 11:23:33	48.9	50.1	50.1	52.8	50.2
51	2019/05/03 11:23:43	48.1	47.2	46.1	43.9	42.5
56	2019/05/03 11:23:53	44.9	43.0	42.3	43.9	43.9
61	2019/05/03 11:24:03	44.2	44.1	44.2	45.2	45.8
66	2019/05/03 11:24:13	46.1	47.1	47.6	47.4	47.2
71	2019/05/03 11:24:23	47.1	47.0	46.4	46.7	47.0
76	2019/05/03 11:24:33	46.9	46.6	46.3	46.1	46.1
81	2019/05/03 11:24:43	48.2	48.7	46.4	44.5	44.3
86	2019/05/03 11:24:53	43.9	43.7	44.0	46.8	44.5
91	2019/05/03 11:25:03	43.9	44.7	45.7	45.3	44.9
96	2019/05/03 11:25:13	44.5	44.2	44.3	46.9	46.6
101	2019/05/03 11:25:23	46.1	47.2	47.5	46.8	46.2
106	2019/05/03 11:25:33	45.5	45.4	44.6	44.6	43.5
111	2019/05/03 11:25:43	43.6	43.3	43.2	42.5	45.6
116	2019/05/03 11:25:53	44.8	43.1	45.7	45.3	44.3
121	2019/05/03 11:26:03	45.7	48.3	49.6	49.8	49.6
126	2019/05/03 11:26:13	49.9	49.1	52.3	53.1	50.3
131	2019/05/03 11:26:23	49.7	48.9	47.7	46.1	46.6
136	2019/05/03 11:26:33	45.5	45.3	45.9	45.5	46.2
141	2019/05/03 11:26:43	46.3	45.8	45.9	45.3	46.0
146	2019/05/03 11:26:53	45.9	46.5	47.2	48.3	47.7
151	2019/05/03 11:27:03	46.9	46.5	46.9	47.7	45.2
156	2019/05/03 11:27:13	44.7	48.2	47.1	48.6	47.9
161	2019/05/03 11:27:23	49.2	46.1	48.0	47.1	47.3
166	2019/05/03 11:27:33	47.9	45.6	45.2	46.1	46.6
171	2019/05/03 11:27:43	47.4	45.7	46.7	47.0	45.5
176	2019/05/03 11:27:53	50.2	48.4	48.8	52.1	50.5
181	2019/05/03 11:28:03	51.3	51.2	51.1	48.8	49.0
186	2019/05/03 11:28:13	48.2	45.7	46.4	43.4	44.6
191	2019/05/03 11:28:23	45.4	44.2	43.0	42.3	42.4
196	2019/05/03 11:28:33	42.6	42.4	43.1	42.6	45.0
201	2019/05/03 11:28:43	46.0	45.0	47.2	46.5	47.2
206	2019/05/03 11:28:53	46.7	46.5	46.9	45.3	44.6
211	2019/05/03 11:29:03	45.1	45.4	44.4	44.5	44.1
216	2019/05/03 11:29:13	44.1	44.6	44.9	45.1	46.3
221	2019/05/03 11:29:23	45.0	45.8	46.6	47.9	51.5
226	2019/05/03 11:29:33	48.2	49.0	46.3	44.2	44.5
231	2019/05/03 11:29:43	44.3	45.3	43.5	45.9	44.2
236	2019/05/03 11:29:53	44.2	47.6	46.0	49.2	47.6
241	2019/05/03 11:30:03	46.0	45.5	45.0	44.5	44.3
246	2019/05/03 11:30:13	43.7	43.9	46.4	44.2	44.9
251	2019/05/03 11:30:23	42.8	45.3	48.7	48.0	50.1
256	2019/05/03 11:30:33	51.8	51.3	51.7	48.8	50.5
261	2019/05/03 11:30:43	51.9	53.0	53.5	52.0	49.6
266	2019/05/03 11:30:53	48.4	47.9	46.9	46.4	45.7
271	2019/05/03 11:31:03	44.3	43.2	43.0	42.9	42.3
276	2019/05/03 11:31:13	41.8	41.7	42.2	41.9	41.7
281	2019/05/03 11:31:23	42.5	45.7	46.0	45.2	43.7
286	2019/05/03 11:31:33	43.3	42.9	42.1	41.6	42.2
291	2019/05/03 11:31:43	44.7	44.8	46.7	46.9	45.9
296	2019/05/03 11:31:53	45.0	45.6	43.5	43.3	44.7
301	2019/05/03 11:32:03	44.4	46.1	46.4	50.8	53.4
306	2019/05/03 11:32:13	50.0	45.5	42.7	44.7	46.2
311	2019/05/03 11:32:23	45.2	44.6	48.6	46.8	46.6
316	2019/05/03 11:32:33	46.0	47.8	47.9	47.1	46.1
321	2019/05/03 11:32:43	45.1	44.5	44.4	44.3	44.9
326	2019/05/03 11:32:53	44.1	44.6	43.5	43.2	42.8
331	2019/05/03 11:33:03	42.1	44.1	44.9	43.0	42.5
336	2019/05/03 11:33:13	42.2	41.4	41.5	43.4	43.5
341	2019/05/03 11:33:23	44.4	44.8	46.1	43.1	42.1
346	2019/05/03 11:33:33	44.5	43.1	45.5	43.1	44.5
351	2019/05/03 11:33:43	46.1	46.1	46.1	48.6	47.3
356	2019/05/03 11:33:53	47.0	45.2	43.8	43.0	42.1
361	2019/05/03 11:34:03	42.5	41.8	41.7	42.0	42.2
366	2019/05/03 11:34:13	41.8	41.3	41.7	42.4	43.2
371	2019/05/03 11:34:23	44.9	47.8	45.7	47.4	49.3
376	2019/05/03 11:34:33	48.4	48.4	48.0	48.2	46.8
381	2019/05/03 11:34:43	45.5	47.4	46.2	49.9	49.2
386	2019/05/03 11:34:53	50.9	50.0	51.2	52.5	53.2
391	2019/05/03 11:35:03	52.7	50.6	49.6	52.7	48.7
396	2019/05/03 11:35:13	47.1	45.4	44.3	44.3	44.3
401	2019/05/03 11:35:23	45.9	47.9	49.9	49.7	54.8
406	2019/05/03 11:35:33	50.6	49.3	52.4	51.7	50.6
411	2019/05/03 11:35:43	49.8	49.8	52.7	54.2	54.0
416	2019/05/03 11:35:53	53.6	51.1	50.0	56.5	52.9
421	2019/05/03 11:36:03	51.4	49.1	51.5	49.7	49.3

426	2019/05/03	11:36:13	46.7	48.7	52.3	54.9	50.0
431	2019/05/03	11:36:23	47.2	47.0	50.8	46.9	43.7
436	2019/05/03	11:36:33	43.4	44.5	45.5	47.9	50.6
441	2019/05/03	11:36:43	49.9	48.5	49.2	48.2	46.1
446	2019/05/03	11:36:53	45.1	46.0	48.2	47.7	46.7

Attachment 3

Model Ouputs

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2023
Case Description: Laguna Creek Trail Site Preparation Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Single Family Residenc	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	15	0
Concrete Saw	No	20		89.6	15	0
Dump Truck	No	40		76.5	15	0
All Other Equipment > 5 HP	No	50	85		15	0
Grader	No	40	85		15	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq	Night Lmax
Scraper	94	90.1	N/A	N/A	N/A	N/A	N/A
Concrete Saw	100	93	N/A	N/A	N/A	N/A	N/A
Dump Truck	86.9	82.9	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	95.5	92.4	N/A	N/A	N/A	N/A	N/A
Grader	95.5	91.5	N/A	N/A	N/A	N/A	N/A
Total	100	98.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi Family Residen	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	80	0
Concrete Saw	No	20		89.6	80	0
Dump Truck	No	40		76.5	80	0
All Other Equipment > 5 HP	No	50	85		80	0
Grader	No	40	85		80	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Scraper	79.5	75.5	N/A	N/A	N/A	N/A	N/A
Concrete Saw	85.5	78.5	N/A	N/A	N/A	N/A	N/A
Dump Truck	72.4	68.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	80.9	77.9	N/A	N/A	N/A	N/A	N/A
Grader	80.9	76.9	N/A	N/A	N/A	N/A	N/A
Total	85.5	83.5	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Caltrans Residential Reside	Residential	47.4	45	45

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	50	0
Concrete Saw	No	20		89.6	50	0
Dump Truck	No	40		76.5	50	0
All Other Equipment > 5 HP	No	50	85		50	0
Grader	No	40	85		50	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A
Grader	85	81	N/A	N/A	N/A	N/A	N/A
Total	89.6	87.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2023
Case Description: Laguna Creek Trail Site Grading Phase

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Single Family Resid	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	15	0
Compactor (ground)	No	20		83.2	15	0
Dump Truck	No	40		76.5	15	0
Dump Truck	No	40		76.5	15	0
All Other Equipment > 5 HP	No	50	85		15	0

	Results Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator	91.2	87.2	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	93.7	86.7	N/A	N/A	N/A	N/A	N/A
Dump Truck	86.9	82.9	N/A	N/A	N/A	N/A	N/A
Dump Truck	86.9	82.9	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	95.5	92.4	N/A	N/A	N/A	N/A	N/A
Total	95.5	95	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Multi Family Reside	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	80	0
Compactor (ground)	No	20		83.2	80	0
Dump Truck	No	40		76.5	80	0
Dump Truck	No	40		76.5	80	0
All Other Equipment > 5 HP	No	50	85		80	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator	76.6	72.6	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	79.1	72.2	N/A	N/A	N/A	N/A	N/A
Dump Truck	72.4	68.4	N/A	N/A	N/A	N/A	N/A
Dump Truck	72.4	68.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	80.9	77.9	N/A	N/A	N/A	N/A	N/A
Total	80.9	80.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Caltrans Residential Ambient	Residential	47.4	45	45

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	50	0
Compactor (ground)	No	20		83.2	50	0
Dump Truck	No	40		76.5	50	0
Dump Truck	No	40		76.5	50	0
All Other Equipment > 5 HP	No	50	85		50	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A
Dump Truck	76.5	72.5	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	85	82	N/A	N/A	N/A	N/A	N/A
Total	85	84.5	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 7/17/2023
Case Description: Laguna Creek Trail Paving Phase

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Single Family Residenci	Residential	47.4	45	45

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	15	0

		Results			
	Calculated (dBA)		Noise Limits (dBA)		
		Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	87.7	84.7	N/A	N/A	N/A	N/A
Total	87.7	84.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Multi Family Residen	Residential	47.4	45	45

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	80	0

		Results			
	Calculated (dBA)		Noise Limits (dBA)		
		Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	73.1	70.1	N/A	N/A	N/A	N/A
Total	73.1	70.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Caltrans Residential Reside	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	77.2	74.2	N/A	N/A	N/A	N/A
Total	77.2	74.2	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/17/2023
Case Descriptio Laguna Creek Trail Architectural Coating Phase

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Single Family Re	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	15	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Scraper		94	90.1	N/A	N/A	N/A	N/A	N/A
	Total	94	90.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Multi Family Resid	Residential	47.4	45	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	80	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Scraper		79.5	75.5	N/A	N/A	N/A	N/A	N/A
	Total	79.5	75.5	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Caltrans Residen	Residential	47.4	45	45

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Scraper	No	40		83.6	50	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A
Total	83.6	79.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

EXHIBIT B

MITIGATION MONITORING AND REPORTING PROGRAM
LAGUNA CREEK TRAIL AND BRUCEVILLE ROAD SIDEWALK IMPROVEMENTS PROJECT (WTL019)

Purpose of Mitigation Monitoring and Reporting Program: The California Environmental Quality Act (CEQA), Public Resources Code Section 21081.6, requires that a Mitigation Monitoring and Reporting Program (MMRP) be established upon completing findings. CEQA stipulates that "the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This MMRP has been prepared in compliance with Section 21081.6 of CEQA to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the project, as required. A table (attached) has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, the responsible person/agency for implementing the measure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the Initial Study and Mitigated Negative Declaration.

In addition to the table of individual mitigation measures, a separate table of avoidance and minimization measures is also included for use by the lead agency.

The City of Elk Grove is the lead agency for the Project under CEQA and shall administer and implement the MMRP. The City is responsible for review of all monitoring reports, enforcement actions, and document disposition. The City shall rely on information provided by the Project site observers/monitors (e.g., construction manager, Project manager, biologist, archaeologist, etc.) as accurate and up-to-date and shall provide personnel to field check mitigation measure status, as required.

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Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
AIR QUALITY				
AQ - 1: Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Construction	City of Elk Grove/ Construction Contractor		
AQ - 2: The construction contractor shall comply with Caltrans' Standard Specifications Section 14 of Caltrans' Standard Specifications (2018) and Section 14-9.02 Air Pollution Control. Section 14-9.02 states: a. Comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including those provided in Government Code § 11017 (Pub Cont Code § 10231). b. Do not dispose of material by burning.	Construction	City of Elk Grove/ Construction Contractor		
AQ-3: Sacramento Metropolitan Air Quality Management District's Rule 403 – Fugitive Dust would be followed. The general requirements of Rule 403 are: a. 301 Limitations: A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to: i. 301.1 Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land. ii. 301.2 Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts; iii. 301.3 Other means approved by the Air Pollution Control Officer.	Construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIOLOGICAL RESOURCES				
BIO-1 A qualified USFWS- and CDFW-approved biologist shall conduct botanical surveys within the typical identification periods for all potentially occurring special-status plant species within suitable habitat prior to commencement of construction activities. For the special-status plant species that may potentially occur, two rounds of focused plant surveys would be necessary to survey within the typical identification periods for all potentially occurring special-status plants. The first round of surveys would be conducted in March or April and the second round of surveys would be conducted in May or June. If no special-status plants are observed, then a letter report documenting the results of the survey will be provided to the Project proponent for their records, and no additional measures with respect to special-status plants are recommended.	Permitting/Final Design/Prior to Construction	City of Elk Grove		
BIO-2 If any special-status plants are found within the Project site, they should be avoided to the extent feasible. The plant locations will be identified on a map, and an agency-approved buffer will be established around the plants with high visibility construction fencing. The construction fencing will remain intact until construction is complete.	Permitting/Final Design	City of Elk Grove		
BIO-3 If special-status plants cannot be avoided, then a mitigation plan will be prepared in consultation with CDFW. CDFW would need to approve the mitigation plan prior to commencement of construction activities that would impact special-status plants.	Permitting/Final Design	City of Elk Grove		
BIO-4 Onsite vernal pool and depressional seasonal wetlands represent suitable habitat for special-status plant species and vernal pool branchiopods and invertebrates. If avoidance is not feasible, then impacts to suitable vernal pool habitat shall be mitigated at a 2:1 ratio (two acres mitigated for every acre lost) or as determined through consultation between USFWS and Caltrans. Mitigation shall be accomplished through preservation of suitable vernal pool habitat or purchase of vernal pool preservation credits at a USFWS- approved conservation bank prior to commencement of activities within suitable habitat. Final habitat acreages, mitigation ratios, and other project-specific compensatory requirements shall be determined through consultation between USFWS and Caltrans.	Permitting/Final Design/ Prior to Construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-5 Ground-disturbing work shall take place during the GGS active season, if feasible, while snakes are more likely to avoid potential disturbances. The general active season for GGS is May 1 – October 1 but seasonal weather patterns should be considered during construction to provide flexibility.	Construction	City of Elk Grove		
BIO-6 A USFWS-approved qualified biologist shall conduct a pre-construction survey for giant garter snake within 24 hours prior to the commencement of any construction activity within 200 feet of potential giant garter snake aquatic habitat. The qualified biologist shall provide a field report of the survey results that shall be made available to the USFWS within one (1) week of the completion of the survey. The Project area shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred within suitable habitat areas.	Pre-construction	City of Elk Grove		
BIO-7 If giant garter snake or suitable burrows are observed within the Project site during the pre-construction survey, the USFWS-approved biologist shall monitor all ground-disturbing activity within the suitable habitat area.	Pre-construction; Construction	City of Elk Grove		
BIO-8 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of work and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel shall sign a form stating that they have attended the training and understand all the measures. Proof of this instruction shall be kept on file with the Project proponent. The Project proponent shall provide the USFWS and CDFW with a copy of the training materials and copies of the signed forms indicating that training has been completed. If new construction personnel are added to the site, the crew foreman shall ensure that the personnel receive the mandatory training before starting work. Copies of signed forms shall be submitted monthly as additional training occurs for new employees. The crew foreman is responsible for ensuring that construction personnel adhere to the guidelines and restrictions.	Pre-construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-9 Exclusion fencing shall be installed along the outer edge of work along the northern edge of Segment 1 in the areas of the adjacent pond (located east of Mannington Street and north of Monterey Oaks Drive) and adjacent to Sacramento County's Lower Laguna Flood Control Project deed restricted parcels, the depressional seasonal wetland (located east of Lyndale Circle and north of Big Horn Boulevard), and along the vernal pool west of Bruceville Road.	Pre-construction	City of Elk Grove/Construction Contractor		
BIO-10 A USFWS-approved biologist will inspect the exclusion fencing weekly, and the fencing will be maintained until the end of construction. If a GGS is found onsite during construction, all activities will stop until the GGS leaves the construction area on its own. The USFWS will be notified within 24 hours of any GGS observations. No handling or capture of a GGS will occur.	Construction	City of Elk Grove/Construction Contractor		
BIO-11 During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary.	Construction	City of Elk Grove/Construction Contractor		
BIO-12 Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any aquatic habitat.	Construction	City of Elk Grove/Construction Contractor		
BIO-13 The use of erosion control materials potentially harmful to GGS and other species such as mono-filament netting or similar material will be prohibited. Tightly woven fiber netting or similar material will be used to ensure GGS do not get trapped or entangled. To avoid entrapment of GGS, trenches will be covered overnight or escape ramps installed. Any pipes or hoses will be sealed with duct tape or equally effective means so that no GGS can enter them. Alternatively, pipes and hoses may be stored at least 3 feet above ground or within a part of the staging area surrounded by exclusionary fence.	Pre-construction; Construction	City of Elk Grove/Construction Contractor		
BIO-14 After completion of construction activities, the Project proponent, or its contractor, shall remove all stockpiled material and construction debris and, wherever feasible, restore disturbed areas to pre-Project conditions.	Post-construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIO-15 Impacts to western pond turtle will be avoided through implementation of Caltrans' Standard BMPs (Caltrans 2017), the Construction Site Monitoring Program Guidance Manual (Caltrans 2013), and the following measures: Ground-disturbing work shall take place during the western pond turtle active season, if feasible, while turtles are more likely to avoid potential disturbances. The general active season for western pond turtle is March 1 – November 1 but seasonal weather patterns should be considered during construction to provide flexibility.	Construction	City of Elk Grove/Construction Contractor		
BIO-16 If possible, construction shall occur outside of the breeding and dispersal season (October through May) for western spadefoot in order to avoid impacts to breeding populations and aquatic metamorphs. It should be noted, this work window conflicts with the GGS and western pond turtle active season work windows as described in Mitigation Measures BIO-5 and BIO-15 (MM-9 and MM-19 in the NES). See Mitigation Measure BIO-17 (MM-22 in the NES) below for guidance if work occurs within the western spadefoot breeding and dispersal season.	Pre-construction	City of Elk Grove		
BIO-17 If construction occurs within the breeding and dispersal season, a pre-construction survey shall be conducted by a qualified biologist within the appropriate survey window to determine the presence of western spadefoot within the Project site: a. If western spadefoot are observed within the Project site, then additional measures such as a qualified biologist conducting a pre-construction survey within 24 hours prior to commencement of construction activities, conducting a pre-construction worker awareness training, and being present to monitor construction during initial vegetation clearing and ground disturbance shall be required. b. If no western spadefoot are observed within the Project site, then a letter report regarding survey results shall be made available to the Project proponent and no additional avoidance and mitigation measures for the species are recommended. c. If a western spadefoot is observed within the construction zone, then all work shall immediately halt in the vicinity of the animal and the animal will be allowed to leave the area on its own will. If the animal is in immediate danger and needs to be relocated, then it shall safely	Pre-construction; Construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
be relocated outside of the construction zone within suitable habitat and at a safe distance from all construction related activities. No work shall resume until the animal is outside of the construction zone.				
BIO-18 A qualified biologist shall conduct an environmental awareness training for all construction personnel. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.	Pre-construction	City of Elk Grove		
BIO-19 Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.5 mile of the Project site where legally permitted to directly access; all suitable nest trees within 0.5 mile of the Project site shall be surveyed using binoculars from legally accessible areas. If no active Swainson's hawk nests are identified within 0.5 mile of the Project site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the Project proponent and CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.	Pre-construction	City of Elk Grove		
BIO-20 If active Swainson's hawk nests are found within 0.5 mile of the Project site, then a qualified biologist shall contact the Project proponent and the CDFW within one day following the pre-construction survey to report the findings. Should an active nest be present within 0.5 mile of Project site, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing should be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.5 mile of the nest. Should the qualified biologist determine that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until the CDFW is consulted.	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the Project proponent and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are recommended.				
BIO-21 The Project proponent shall comply with the City of Elk Groce Swainson's Hawk Code (Chapter 16.130) to mitigate for the loss of foraging habitat.	Pre-construction	City of Elk Grove		
BIO-22 A qualified biologist shall conduct an environmental awareness training for all construction personnel. The training for active white-tailed kite nests should be similar to the training described for Swainson's hawk. This training will follow the same guidelines as the giant garter snake and western pond turtle trainings.	Pre-construction	City of Elk Grove		
BIO-23 A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities if anticipated to commence during the nesting season (between February 15 and August 31). An additional pre-construction survey should be conducted within 72 hours of commencement of ground-disturbing activities. During the surveys, suitable nest trees adjacent to the Project site shall be surveyed using binoculars from legally accessible areas. If the pre-construction survey documents that there is no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, then an additional pre-construction survey shall be conducted.	Pre-construction	City of Elk Grove		
BIO-24 If suitable nesting habitat or wintering habitat features are present for white-tailed kite on or within ¼-mile of the Project site, or if nests are identified during the pre-construction survey within the Project site, then a qualified biologist shall conduct surveys within 0.25-mile of the Project area within 14 days and again within 3 calendar days prior to the start of Project activities during the nesting season (February 1 – August 31). Surveys shall be done during the appropriate time	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
of day to maximize detectability and shall concentrate on suitable nesting structures for the species. If an active nest is discovered during the survey or during construction, a qualified biologist shall establish a minimum 0.25-mile no disturbance buffer around active nests to start until the nesting season has ended or until the qualified Biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival. Permittee shall halt any Project activities that could affect the foraging or feeding behavior of WTKI. The nest buffer should be assessed for effectiveness and may require increase (or decrease) in size depending on the birds' tolerance level to the disturbance. ~~establish a minimum ¼ mile buffer zone around active nests to start until the nesting season has ended or until the qualified biologist determines that all young have fledged and are no longer reliant upon the nest or parental care for survival.~~ The biologist will mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. The nest buffer should be assessed for effectiveness and may require increase or decrease in size depending on the birds' tolerance level to the disturbance. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.				
CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and that no forced fledging occurs. Daily monitoring should occur until the qualified biologist determines that the nest is no longer occupied or active. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and CDFW for their records and no additional measures are recommended.				
BIO-25 If construction is expected to occur during the nesting season (February 15 through August 31), then a qualified biologist will conduct an environmental awareness training for all construction personnel. The training will include information pertaining to the potential for active nests to occur within the Project site and procedures to follow in the event that an active nest is found during	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
construction.				
BIO-26 If feasible, then construction and any tree/shrub removal should be completed between September 1 and February 14, outside of the nesting season.	Pre-construction	City of Elk Grove		
BIO-27 If construction begins during the nesting season (February 15 through August 31), then a pre-construction nesting bird survey shall be conducted within 7~~14~~ days prior to the commencement of construction activities and vegetation removal. If the pre-construction survey results in no evidence of active nests, then a letter report will be submitted to the Project proponent and CDFW for their records and no additional measures are recommended. If active nests are located within or directly adjacent to the Project site then the following shall occur: a. If any active nests are located, then a qualified biologist shall establish an appropriate species-specific buffer zone (generally a 500~~75~~-foot standard buffer for most songbirds, a 0.5-mile ~~300-foot~~ standard buffer for most raptors, and ~~up to~~ a buffer of 0.5-mile ~~1,320~~ 2,640 ~~feet~~ for Swainson's hawk) around the nests. The buffer may need to be increased based on the birds' tolerance level to the disturbance; the qualified biologist will confirm whether or not the buffer is sufficient to avoid take/nest failure and will increase the buffer if needed. The qualified biologist shall mark the buffer zone with highly visible flagging or pin flags and maintain the buffer zone until all construction has been completed, until the end of the breeding season, or until the young have successfully fledged and/or the nest is no longer active. A qualified biologist will monitor active nests weekly during construction to evaluate potential nesting disturbance caused by construction activities. If establishing the typical buffer zone is impractical, then the qualified biologist may reduce the buffer depending on the species, and daily monitoring is also recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied or that it has been determined that nesting activity is not negatively affected by adjacent Project construction activities. Once it has been determined that the nest is no longer active, then a letter report shall be submitted to the Project proponent and the CDFW for their records.	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Monitoring of potential nesting activities in the Project site should continue, at a minimum, until the end of the avian nesting season (September 1). If a lapse in Project-related work of 7 calendar days or longer occurs, the qualified biologist shall complete another focused survey before Project activities can be reinitiated.				
BIO-28 Prior to commencement of ground disturbing activities, the City shall obtain all required regulatory authorizations from the USACE and RWQCB for the discharge of dredged or fill material within waters of the U.S. and/or waters of the State.	Permitting/Final Design	City of Elk Grove		
BIO-29 To mitigate for the permanent loss of waters of the U.S. resulting from development of the proposed Project, the City shall submit a compensatory mitigation plan to the USACE and RWQCB proposing in-kind replacement of impacted waters of the U.S. at a minimum 1:1 ratio, or as otherwise required by the USACE and RWQCB.	Permitting/Final Design	City of Elk Grove		
BIO-30 Prior to commencement of activities within resources subject to Fish and Game Code Section 1602, the City shall enter into a Streambed Alteration Agreement with CDFW.	Permitting/Final Design	City of Elk Grove		
BIO-31 All aquatic resources delineated within the Project site are likely to be determined to be classified either as waters of the U.S. and/or waters of the State. If it is determined that some of the aquatic resources within the Project site are not subject to federal jurisdiction, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the Project result in impacts to these features. Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. A report of waste discharge shall be filed for impacts to non-federal waters, if required.	Permitting	City of Elk Grove		
BIO-32 Prior to ground-disturbing activities and any tree removal, a Tree Removal	Permitting	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Permit shall be obtained from the City, and the Project proponent shall comply with all of the conditions of the permit. As part of the approval of a tree permit for removal of a tree(s), the approving authority shall require mitigation for the loss of the tree consistent with Article IV (Mitigation for Tree Loss) of Chapter 19.12 of the Municipal Code. A tree preservation plan shall be prepared for the Project identifying all protection and mitigation measures to be taken. The measures shall remain in place for the duration of construction activities at the Project site. The tree preservation plan shall be submitted to and approved by the City Arborist.				
BIO-33 Tree Protection Measures • Tree Protection Fencing, consisting of chain link or four-foot tall, brightly-colored, high-visibility plastic fencing, shall be placed around the perimeter of the critical root zone (CRZ) (one foot per inch of trunk diameter) or dripline radius + 1 foot, whichever is greater. This is the minimum distance for placing protective fencing. Tree protection fencing should be placed as far outside of the CRZ as possible. Signs shall be placed along the fence denoting this as a "Tree Protection Zone" that shall not be moved until construction is complete. Trees or tree clusters with canopy extending beyond 50 feet from proposed Project boundaries may be fenced only along sides facing the Project. In cases where proposed work infringes on the CRZ, fence shall be placed at edge of work; • Whenever possible, fence multiple trees together in a single CRZ; • Tree protection fencing shall not be moved without prior authorization from the Project Arborist and the City, as appropriate; • No parking, portable toilets, dumping or storage of any construction materials, grading, excavation, trenching, or other infringement by workers or domesticated animals is allowed in the CRZ;	Pre-construction; Construction	City of Elk Grove/Construction Contractor		
• No signs, ropes, cables, or any other items shall be attached to a protected tree, unless recommended by an ISA-Certified Arborist; • No tree-toxic materials shall be dumped on the Project site (e.g., gasoline, herbicide, salt);				

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
• Prior to the installation of new asphalt, weed control chemicals shall not be applied where they can leach into the dripline of any protected tree. • Underground utilities should be avoided in the CRZ, but if necessary, shall be bored or drilled. If boring is impossible, all trenching will be done by hand under the supervision of an ISA-Certified Arborist; • No cut or fill within the dripline of existing protected tree is permitted except as shown on the final development plans. If cut or fill within the dripline is unavoidable, any mitigation requirements shall be determined by the City, as appropriate; • Pruning of any retained tree shall be done under the supervision of an ISA-Certified Arborist and in accordance with current ISA standards and ANSI A300 standards; • All wood plant material smaller than six inches in diameter shall be mulched on site. Resulting mulch shall be spread in a layer four to six inches deep in the CRZ of preserved trees. Mulch shall not be placed touching the trunk of preserved trees; and • Appropriate fire prevention techniques shall be employed around all significant trees to be preserved. This includes cutting tall grass, removing flammable debris within the CRZ, and prohibiting the use of tools that may cause sparks, such as metal blade trimmers or mowers.				
CULTURAL RESOURCES				
CUL-1 No project-related activities (e.g. grubbing, staging, equipment parking/storage, traffic handling signage, etc.) shall take place within the ESA located within the unevaluated portion of P-34-005386 (CA-SAC-001278H) shown on Figure 4 of the September 2021 *Finding of No Adverse Effect for the Laguna Creek Trail and Bruceville Road Sidewalk improvements Project, Sacramento County, California*.	Construction	City of Elk Grove/Construction Contractor		
CUL-2 At least two weeks prior to commencing construction, the construction contractor, in consultation with the City Project Engineer and the Caltrans	Pre-construction	City of Elk Grove/Construction		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
Archaeologist, will delineate the boundaries of the ESA. Construction exclusion fence surrounding the ESA outside of the Project Impact Area shall be installed one calendar week prior to the initiation of work near the archaeological site.		Contractor		
CUL-3 Information contained in the final ESA Action Plan shall be included within the Permits, Agreements and Mitigation Form and shall be included on the Project specification and estimates package. The importance of the ESA, as well as the prohibition of any activities within the ESA, shall be relayed to the construction contractor and personnel during a pre-Project Worker Awareness Training conducted prior to commencement of Project construction. The importance of ESA shall be discussed with construction personnel, and it will be stressed that no construction activity (including storage or staging of equipment or materials) should occur within the ESA and that workers must remain outside of the ESAs at all times. Additionally, personnel will be informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.	Permitting/Final Design; pre-construction	City of Elk Grove		
CUL-4 The Caltrans Archaeologist shall be notified five business days prior to commencement of work in the area of the ESA. The Caltrans Archaeologist shall conduct weekly drop-in monitoring of the ESA area to ensure no breaching of the ESA.	Pre-construction; Construction	City of Elk Grove/Construction Contractor		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
CUL-5 If Native American cultural materials are discovered during Project construction, then all work shall halt within 100 feet of the discovery and the Resident Engineer shall be immediately notified. The City shall contact the United Auburn Indian Community of the Auburn Rancheria (UAIC) and the Wilton Rancheria regarding the discovery. The Resident Engineer, the City, an archaeologist meeting the Secretary of the Interior's Standards in Archaeology, the UAIC, and the Wilton Rancheria shall assess the discovery to determine if it qualifies as a Tribal Cultural Resource. The appropriate treatment of the discovery, including any applicable avoidance or mitigation strategies, shall be determined in consultation with the City, the UAIC, and the Wilton Rancheria. Construction activities will not commence until the appropriate treatment has been determined and any applicable mitigation has been completed. Mitigation shall follow the recommendations detailed in Public Resources Code sections 21084.3(a) and (b), and CEQA Guidelines section 15370.	Construction	City of Elk Grove/Construction Contractor		
CUL-6 Worker environmental training will include archaeological and Tribal Cultural Resource awareness. The training shall be developed in coordination with the UAIC and the Wilton and will be provided prior to commencement of Project construction activities for all personnel working within the Project site. The training will identify the appropriate point of contact in the case of Tribal Cultural Resource discovery and will include relevant information regarding Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also underscore the requirement for confidentiality and culturally appropriate treatment of Tribal Cultural Resources.	Pre-construction	City of Elk Grove		
GEOLOGY AND SOILS				
GEO-1 Before the start of any earthmoving activities, the City shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided	Pre-construction	City of Elk Grove		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.				
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1 Prior to the commencement of construction, a hazardous materials compliance plan shall be prepared by a Certified Industrial Hygienist to address the metals content of any yellow and white roadway striping with the Project area. This plan shall be prepared in accordance with Caltrans Standard Specifications Section 14-11.12C for removal of yellow traffic stripe and pavement markings that produce hazardous waste residue.	Pre-construction	City of Elk Grove		
LAND USE AND PLANNING				
LU-1 Prior to implementing construction of proposed improvements, the City shall consult with the USACE and USFWS to obtain the applicable regulatory authorizations for project development.	Permitting	City of Elk Grove		
NOISE				
NOI-1 *Construction Equipment Sound Control*. All internal combustion engines, including trucks, shall be equipped with the manufacturer-recommended mufflers and silencing devices. Operation of an internal combustion engine shall not occur on the job site without the appropriate muffler.	Construction	City of Elk Grove/Construction Contractor		
NOI-2 *Neighborhood Notification Prior to Construction.* At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice to all property owners, businesses, and residents within 300 feet of the Project area. The notice shall contain a description of the Project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s).	Construction	City of Elk Grove/Construction Contractor		
RECREATION				
Implementation of mitigation measures for **Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use, Noise, and Tribal Cultural Resources** would reduce potentially significant impacts related to recreation to less than significant levels.				

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
TRIBAL CULTURAL RESOURCES				
Implementation of **Mitigation Measure CUL-5 and CUL-6** would reduce potentially significant impacts related to tribal cultural resources to less than significant levels.				
MANDATORY FINDINGS OF SIGNIFICANCE				
See **Mitigation Measures AQ-1 through AQ-3, BIO-1 through BIO-32**, **CUL-1 through CUL-6**, **GEO-1**, **HAZ-1**, **NOI-1, NOI-2, and LU-1**.				

CERTIFICATION
ELK GROVE CITY COUNCIL RESOLUTION NO. 2024-146

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) ss
CITY OF ELK GROVE)

I, Jason Lindgren, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on August 28, 2024 by the following vote:

AYES: COUNCILMEMBERS: Singh-Allen, Brewer, Robles, Spease, Suen

NOES: COUNCILMEMBERS: None

ABSTAIN: COUNCILMEMBERS: None

ABSENT: COUNCILMEMBERS: None



Jason Lindgren, City Clerk
City of Elk Grove, California