DRAFT

INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

TRAVIS SAFE ROUTES TO SCHOOL AND TRANSIT PROJECT

FAIRFIELD, CALIFORNIA

LSA

February 2026

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INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

TRAVIS SAFE ROUTES TO SCHOOL AND TRANSIT PROJECT

FAIRFIELD, CALIFORNIA

Submitted to:

City of Fairfield
1000 Webster Street
Fairfield, California 94533

Prepared by:

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Project No. 20231438

LSA

February 2026

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LIST OF ABBREVIATIONS AND ACRONYMS

µg/m^3	micrograms per cubic meter
2023 Addendum	*Draft Environmental Impact Report Addendum Fairfield Train Station Specific Plan*
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AIA	Airport Influence Area
Air District	Bay Area Air District
Basin Plan	Water Quality Control Plan
BMPs	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
California Register	California Register of Historical Resources
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CBC	California Building Code
CC	Community Commercial
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CH_4	methane

City	City of Fairfield
Clean Air Plan	Bay Area 2017 Clean Air Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
Construction General Permit	SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2022-0057-DWQ, NPDES No. CAS000002
CS	Service Commercial
CT	Thoroughfare Commercial
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DDT	dichlorodiphenyltrichloroethane
EO	Executive Order
FESA	federal Endangered Species Act
FSSD	Fairfield-Suisun Sewer District
FTA	Federal Transit Administration
FTA Manual	Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual*
GHG	greenhouse gases
GSI	Green Stormwater Infrastructure

GWP	global warming potential
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HR	High Density Residential
I-80	Interstate 80
in/sec	inches per second
IS/MND	Initial Study/Mitigated Negative Declaration
L_{dn}	day-night average level
L_{eq}	equivalent continuous sound level
LID	low-impact development
L_{max}	maximum instantaneous noise level
LUCP	Travis Air Force Base Land Use Compatibility Plan
mgd	million gallons per day
MLD	Most Likely Descendant
MMP	mitigation and monitoring plan
MR	Medium Density Residential
MRP	San Francisco Bay RWQCB's Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008
MRZ	Mineral Resource Zone
MT	metric tons
MTC	Metropolitan Transportation Commission
MU	Mixed Use
N_2O	nitrous oxide
NAHC	Native American Heritage Commission

NEPA	National Environmental Policy Act
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
OS/C	Open Space/Conservation
PCBs	polychlorinated biphenyls
PF	Public Facility
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter 10 microns or less in diameter
PPV	peak particle velocity
PRC	Public Resources Code
project	Travis Safe Routes to School and Transit Project
RMS	root-mean-square
ROGs	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide

SR-12	State Route 12
SVRP	City of Fairfield Scenic Vistas and Roadways Plan
SWPPP	Storm Water Pollution Prevention Plan
TACs	toxic air contaminants
TC	Thoroughfare Commercial
TMDLs	total maximum daily loads
TS-PD	Train Station Specific Plan – Planned Development
TSSP	Fairfield Train Station Specific Plan
TSSP EIR	*Final Environmental Impact Report for the Fairfield Train Station Specific Plan*
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VdB	vibration velocity decibel
VMT	vehicle miles traveled
WEAP	workers environmental awareness program

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1.0 PROJECT INFORMATION

1. **Project Title:**

   Travis Safe Routes to School and Transit Project

2. **Lead Agency Name and Address:**

   City of Fairfield
   1000 Webster Street
   Fairfield, CA 94533

3. **Contact Person and Phone Number:**

   David Vong
   City of Fairfield
   1000 Webster Street
   Fairfield, CA 94533
   Dvong@fairfield.ca.gov

4. **Project Location:**

   The project site consists of a proposed trail alignment that extends a total of 1.5 miles from the south portal of the Fairfield-Vacaville Hannigan Train Station to the main gate of Travis Air Force Base on Parker Road.

5. **Project Sponsor's Name and Address:**

   City of Fairfield
   1000 Webster Street
   Fairfield, CA 94533

6. **General Plan Designation:**

   Public Facility (PF); Travis Station Specific Plan Area 3, Open Space/Conservation District (OS/C), Community Commercial (CC); Mixed Use (MU)

7. **Zoning:**

   Train Station Specific Plan – Planned Development (TS-PD), Open Space Conservation (OS/C), Public Facility (PF); Service Commercial (CS); Thoroughfare Commercial (CT)

8. **Description of Project:**

   The City of Fairfield (City) proposes to construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. A more detailed project description is provided in Section 2.0.

9. **Surrounding Land Uses and Setting:**

   Surrounding land uses include public facilities (i.e., schools), residential development, railroad lines, open space, and commercial uses owned by a variety of landowners, including both private

and public entities. The project site is adjacent to Fairfield-Vacaville Hannigan Train Station to the north and Travis Air Force Base to the south. There are three schools within the vicinity of the project including Center Elementary School, Golden West Middle School, and Vanden High School.

10. **Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):**

    See Table 2.A in Section 2.0, Project Description, below.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    A request form describing the proposed project and map depicting the project site was sent to the Native American Heritage Commission (NAHC) in West Sacramento requesting a list of tribes eligible to consult with the City, pursuant to Public Resources Code Section 21080.3.1, on January 21, 2025. On January 23, 2025, the NAHC responded in a letter with a list of tribal contacts. The City sent letters to these individuals on August 11, 2025, notifying them of their opportunity to consult for this project. A summary of tribal consultation efforts is provided in Section 4.18, Tribal Cultural Resources, of this Initial Study/Mitigated Negative Declaration.

2.0 PROJECT DESCRIPTION

The City of Fairfield (City) proposes to construct a mixture of Class I, Class III and Class IV mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and the Travis Air Force Base (project).

2.1 CONTACT PERSON

Any questions or comments regarding this Initial Study/Mitigated Negative Declaration (IS/MND), its assumptions, or its conclusions should be referred to:

David Vong
City of Fairfield
1000 Webster Street
Dvong@fairfield.ca.gov

2.2 PROJECT BACKGROUND

During the 1990s, the City of Fairfield began to work with the Solano Transportation Authority and other communities in Solano County to develop a plan for additional Capitol Corridor stations in the county. Through this effort, the cities of Fairfield and Vacaville agreed to jointly develop a new station, the Fairfield-Vacaville Hannigan Train Station, at the southeast corner of Peabody Road and Vanden Road in northeast Fairfield to serve commuters in eastern Fairfield and Vacaville.

In 1999, Fairfield acquired land for the Fairfield-Vacaville Hannigan Train Station and began the process of designing and constructing the station. As part of construction of the new train station, Peabody Road was elevated to improve safety and eliminate the surface road crossing. In addition, construction of a major regional connecting roadway, Jepson Parkway, began east of the station. The Fairfield-Vacaville Hannigan Train Station opened to the public in November 2017.

Prior to adoption of the Train Station Specific Plan and the subsequent annexation program, the land around the Fairfield-Vacaville Hannigan Train Station, including the station site itself, was largely unincorporated. As a part of the City's General Plan update in 2002, the City designated some land around the station for transit-supportive uses, including medium and high-density housing to the south, and office uses to the southeast and north. In 2005, the City Council directed staff to prepare a Specific Plan for land within approximately 0.25 mile of the station site. This included land within about a 10-minute walk to the train station. In 2008, the City Council expanded the area to be planned eastward to North Gate Road.

In 2011, the City of Fairfield adopted the Train Station Specific Plan to address the development of approximately 3,000 acres of land surrounding the new Fairfield-Vacaville Hannigan Train Station. The Train Station Specific Plan includes policy language, land use and infrastructure plans, and implementation elements including zoning, design guidelines and phasing plans for development of a transit- and pedestrian-oriented district around the station.

Chapter 10, Transportation, of the Train Station Specific Plan designates a connector street with a multi-use trail from the train station to Markeley Lane. The proposed project would implement this identified transportation improvement. In addition, the proposed project is included in the Solano Countywide Active Transportation Plan adopted by the Solano Transportation Authority Board in May 2022. The proposed project conforms to the goals of the Solano Countywide Active Transportation Plan by providing an equitable and safe facility for users of all ages and abilities. The proposed project is intended to provide safe pedestrian and bicycle access to three schools as well as transit options at the Fairfield-Vacaville Hannigan Train Station. The proposed project would serve residents within the Northeast Fairfield Priority Development Area and Travis Air Force Base.

2.3 PROJECT LOCATION

The project site is in the northeastern portion of Fairfield in Solano County, California. The project site consists of a linear trail alignment that begins at the south portal of the Fairfield-Vacaville Hannigan Train Station and extends south to the main gate of Travis Air Force Base on Parker Road. The majority of the project site is within City of Fairfield right-of-way along De Ronde Drive, Forbes Street, Markeley Lane, Air Base Parkway and Parker Road. However, portions of the project site are on federal land associated with Travis Air Force Base and on private land designated for residential development in the City's Train Station Specific Plan. Figure 2-1 shows the regional location of the project site.

2.3.1 Site Access

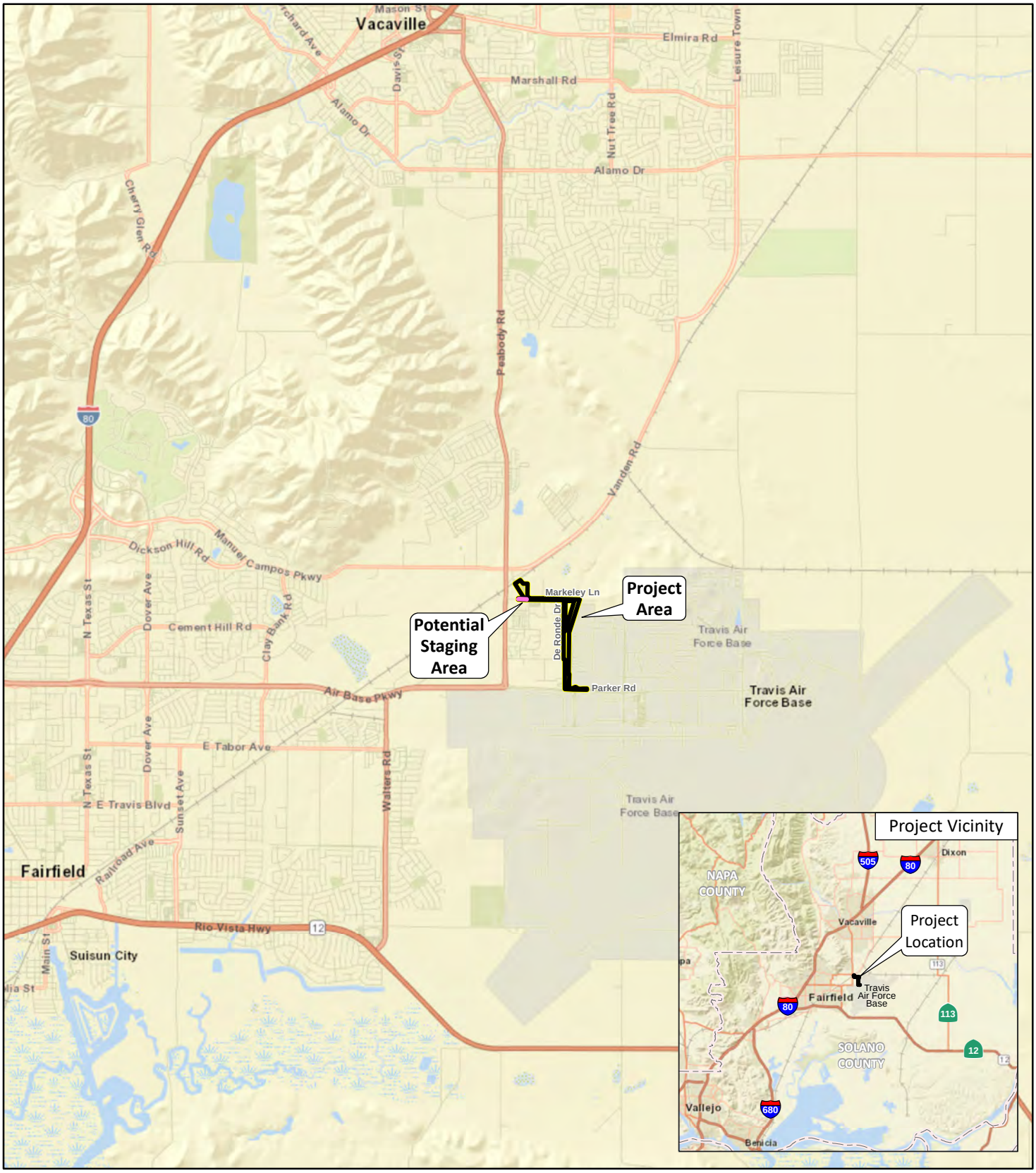
Regional access to the project site is provided by State Route 12 (SR-12) via Walters Street and Interstate 80 (I-80) via Air Base Parkway. SR-12 is an east-to-west-running highway south of Air Base Parkway and it intersects Walters Street approximately 2.5 miles south of the southern project limits. I-80 runs approximately 4.5 miles west of the project site.

2.3.2 Surrounding Land Uses

The project site is surrounded by a variety of land uses, including public facilities (i.e., schools), residential development, commercial uses, and undeveloped open space. The northernmost portion of the project site is adjacent to the Fairfield-Vacaville Hannigan Train Station within the Train Station Specific Plan area. There are three schools within the vicinity of the project site, including Center Elementary School, Golden West Middle School, and Vanden High School. Figure 2-2 provides an aerial view of the project site and surrounding land uses. In addition, a portion of the project site is on federal land associated with Travis Air Force Base.

2.3.3 Existing Site Conditions

The project site extends along three public roadways: Markeley Lane, DeRonde Road, and Parker Road. Within the project limits, Markeley Lane, De Ronde Road and Parker Road generally consist of one travel lane in each direction ranging in width from 12 to 18 feet. Currently, there are no existing bike lanes where the schools are along Dobe Lane, De Ronde Road, and Markeley Lane. Similarly, there are no existing sidewalks on Peabody Road from Dobe Lane and Air Base Parkway, and on Air Base Parkway from Peabody Road to Parker Road. The project site also includes a portion of



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LEGEND

Project Area

Potential Staging Area

FIGURE 2-1

N

0 3000 6000

FEET

SOURCE: Esri World Street Map (2025).

I:\2023\20231438\GIS\MXD\Project_2025-01\Figure 1_Regional Location.mxd (1/30/2025)

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California

Regional Location

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LSA

LEGEND

Project Area

Potential Staging Area

FIGURE 2-2

N

0 400 800

FEET

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California

Project Site

SOURCE: City of Fairfield; Nearmap (06/2024).

I:\2023\20231438\GIS\MXD\Project_2025-01\Figure 2_Project Site.mxd (1/30/2025)

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undeveloped land adjacent to an existing storm drain channel on the west side of Travis Air Force Base and a portion of undeveloped grazing land south of the existing Fairfield-Vacaville Hannigan Train Station. This portion of the project site is proposed for residential development consistent with the Train Station Specific Plan.

2.3.4 Regulatory Framework

The northernmost portion of the project site is within Train Station Specific Plan Area 3, as designated in the City's General Plan. Train Station Specific Plan Area 3 is bounded by the Capitol Corridor rail line to the north, Markeley Lane to the south, Peabody Road to the west, and Samo Lane to the east.

The linear trail alignment would be largely within existing public right-of-way, which does not have a land use or zoning designation. The area surrounding the project site is designated as Open Space – Conservation (OS/C), Public Facility (PF), Mixed Use (MU) and Community Commercial (CC) in the City of Fairfield General Plan[1] and Medium Density Residential (MR), High Density Residential (HR) and Park in the Train Station Specific Plan.[2] These areas are zoned as Train Station Planned Development (Planning Area 9B-Residential) (TS-PD), Public Facilities (PF), Thoroughfare Commercial (CT), Service Commercial (CS) and Open Space Conservation (OS/C).[3]

The proposed project will receive federal funding through the One Bay Area Grant project; therefore, the City is seeking to obtain environmental clearance for both the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). The City of Fairfield will serve as the lead agency for CEQA and the California Department of Transportation (Caltrans) will serve as NEPA lead agency.

2.4 PROJECT DESCRIPTION

The City proposes to construct a mixture of Class I,[4] Class III[5] and Class IV[6] trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The path of

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1 City of Fairfield. 2015. *City of Fairfield General Plan Land Use Diagram.* Website: https://www.fairfield.ca.gov/home/showpublisheddocument/3170/637732653282470000 (accessed July 2, 2024).

2 City of Fairfield. 2011. *Fairfield Train Station Specific Plan Area Land Use Plan.* August 2. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/4200/637553944997130000 (accessed July 2, 2024).

3 City of Fairfield. n.d. *Zoning Designations Web Application for City of Fairfield.* Website: https://fairfield.maps.arcgis.com/apps/webappviewer/index.html?id=2631cd4c79da4c6099c6e0a4ded9a172 (accessed July 2, 2024).

4 Class I Bikeways (Bike Paths) consist of off-road paths and trails, including multi-use trails. Class I bikeways are not on streets shared with vehicles, but separate places for bikes and other recreational uses.

5 Class III Bikeways (Bike Routes) consist of bicycle routes, which are preferred routes for people on bikes as compared to other alternatives. These are shared facilities with vehicles and other road users, often marked by signs appointing them as such and often include sharrows.

6 Class IV Bikeways (Separated Bikeways) consists of bikeways for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

the new trail encompasses the Train Station South Portal to the Markeley Lane-Viking Lane intersection (Class I temporary trail), Markeley Lane (Class IV), De Ronde Drive (Class IV), intersects Forbes Street, parallels the storm drain channel (Class I), Air Base Parkway (Class I) and Parker Road (Class III). Proposed improvements would include lighting, camera system, wayfinding signage, storm water low-impact development (LID), and potentially seating areas if funding allows. The project would not require future construction to fully utilize design capabilities.

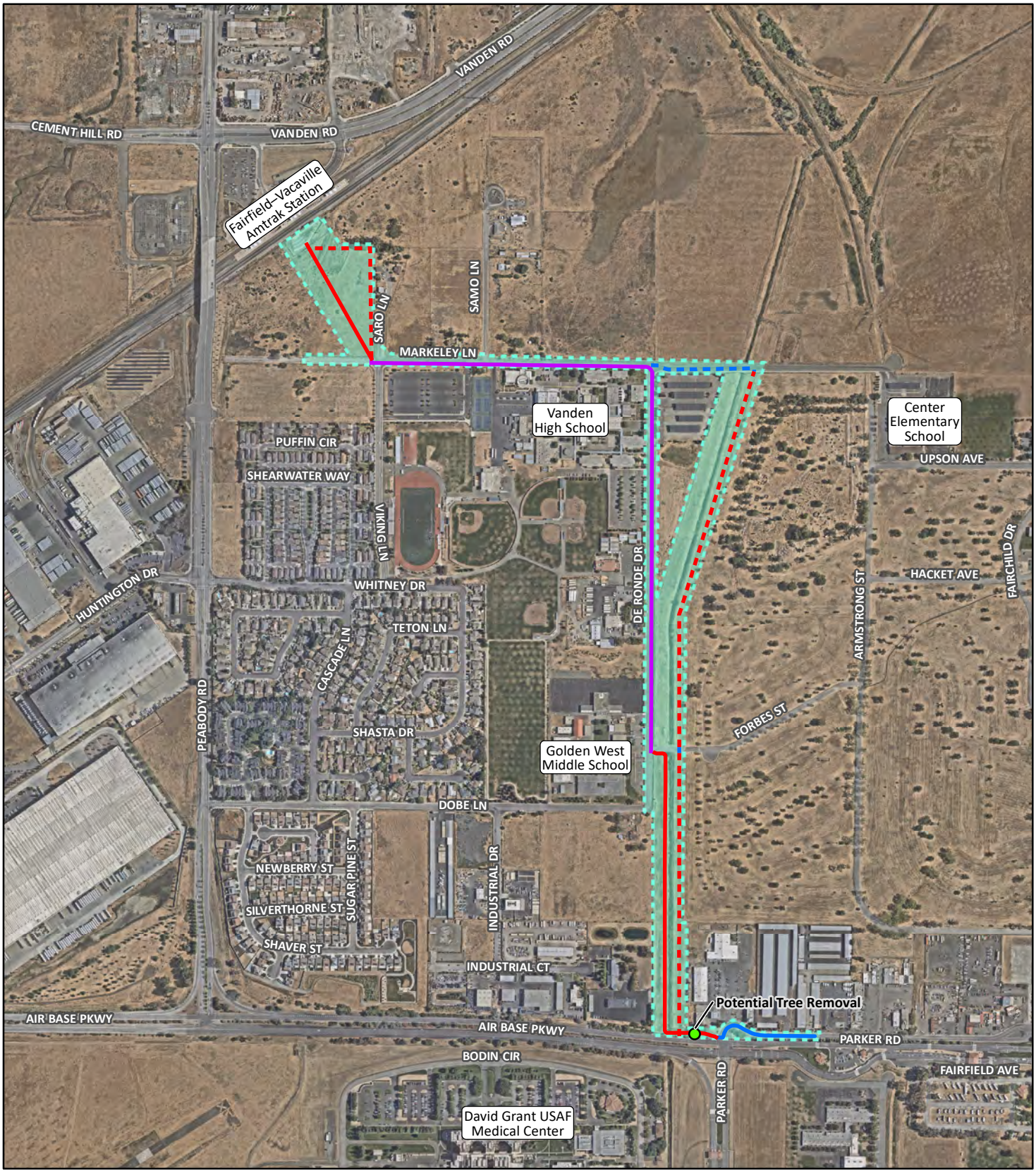
2.4.1 Proposed Trail

As shown in Figure 2-3, the proposed trail alignment would begin at the south portal of the Fairfield-Vacaville Hannigan Train Station and traverse vacant, unpaved grazing land in a southeastern direction for approximately 750 feet until it intersects Markeley Lane. This segment would be designed as a Class I bicycle trail and pedestrian path with one set of 6-foot, bidirectional bicycle lanes and 1-foot shoulders. This portion of the proposed trail alignment would require an easement from the private landowner and would be constructed as part of the proposed residential development between the Fairfield-Vacaville Hannigan Train Station and Markeley Lane.

The currently closed south portal of the train station would be removed to allow pedestrians and bicyclists to access the station from the south side of the railroad tracks. As the timing for the proposed subdivision is currently unknown, the City would construct a temporary asphalt trail in this area to provide the trail connection from the train station to Markeley Lane until the private landowner constructs the proposed subdivision with the permanent trail. Once construction of the proposed subdivision commences, the temporary trail would be removed. The new permanent trail would be constructed as part of the proposed roadway network for the subdivision and may follow a different alignment. Maintenance of the permanent trail would remain the responsibility of the City of Fairfield.

The proposed trail alignment would then extend east along Markeley Lane within City right-of-way for approximately 1,800 feet until it intersects with De Ronde Drive. The proposed trail segment along Markeley Lane would be designed as a Class IV separated bike lane with one set of 6-foot bi-directional bicycle lanes abutting the sidewalk and separated from Markeley Lane by a 2-foot shoulder. Other street improvements associated with this segment would include restriping of Markeley Lane for two 11-foot-wide travel lanes, striping of the crosswalk at the intersection of Markeley Lane and the Class I Trail, and approximately 4 feet of pavement widening. A road diet would reduce the roadway from 39 to 22 feet.

From the Markeley Lane and De Ronde Road intersection, the proposed trail alignment would extend south along De Ronde Road within City right-of-way for approximately 2,300 feet until it intersects with Forbes Street. This segment of the proposed trail would be designed as a Class IV separated bike lane with one set of 6-foot bidirectional bicycle lanes abutting the sidewalk separated from De Ronde Road by a 2-foot shoulder. Other street improvements associated with this segment would include the restriping of De Ronde Road, removal of existing median striping, and the addition of 3 feet of striping on the shoulder of the traffic lane closest to the bicycle lane.



LSA

Project Area
Proposed Class I Bike / Pedestrian Path
Proposed Class II Bike Lane and Road Widening *
Proposed Class IV Bike Lane and Road Widening *
Proposed Alternate Class I Bike / Pedestrian Path
Proposed Alternate Class II Bike Lane and Road Widening *

* Existing sidewalk on north side of Parker Rd and south side of Markeley Ln

0 400 800
FEET

SOURCE: City of Fairfield; Nearmap (06/2024).

I:\2023\20231438\GIS\MXD\Project_2025-01\Figure 3_Proposed Trail Alignment.mxd (1/30/2025)

FIGURE 2-3

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California

Proposed Trail Alignment

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Alternatively, the proposed trail alignment could extend along Markeley Lane, past the De Ronde Drive intersection to the existing storm drain channel. This alternative trail alignment, which would be designed as a Class I bike path, would then run southwest along the storm drain channel to Air Base Parkway.

The proposed trail alignment would jog east along Forbes Road approximately 75 feet and then continue south for approximately 1,700 feet paralleling De Ronde Drive until it intersects with Air Base Parkway. The proposed trail alignment would then extend east, parallel to Air Base Parkway until it intersects Parker Road. This segment would be designed as a Class I bicycle trail with one set of 6-foot bidirectional bicycle lanes and 1-foot shoulders. This segment of the proposed trail alignment would require an easement from Travis Air Force Base to construct the trail adjacent to an existing storm drain channel.

The final segment of the proposed trail alignment would extend east along Parker Road within City right-of-way for approximately 980 feet to the main gate of the Travis Air Force Base. This segment of the proposed trail would be designed as a Class III bicycle boulevard. No changes to the width of the road or sidewalk would take place. Striping improvements indicating the presence of a bicycle boulevard would be added.

2.4.2 Easement Acquisition

Approximately 50 percent of the proposed project would be constructed within City of Fairfield right-of-way. Easements would be required from the residential development between the Fairfield-Vacaville Hannigan Train Station south portal and Markeley Lane. The City is currently working with the developer to incorporate the Class I bike trail and pedestrian pathway into the development design. In addition, an easement would be required from the United States Air Force to construct the trail on the west side of Travis Air Force Base adjacent to the existing storm drain channel. A portion easement may also be required from the Travis Unified School District, depending which trail route is ultimately selected. Potential driveway conforms at Forbes Street may be required on Travis Air Force Base property.

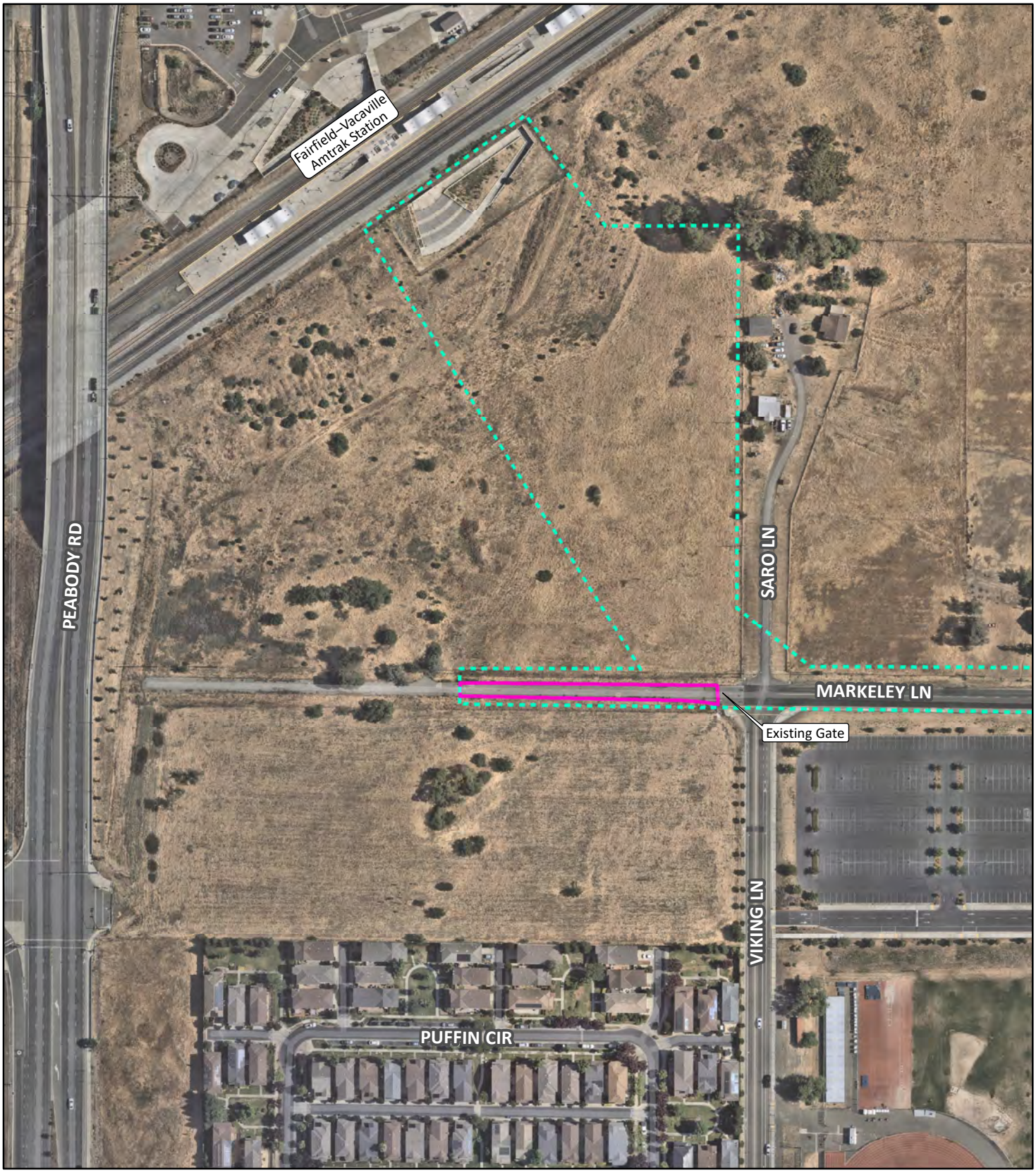
The extent to which utility relocation may be required is currently unknown but is unlikely, as the trail route could be modified to avoid utility conflicts.

2.4.3 Construction

Construction of the proposed project would commence in July 2027 and would extend for approximately 12 months. Construction hours would be during daylight hours, from approximately 8:00 a.m. to 5:00 p.m., daily.

Prior to construction, temporary contractor laydown areas would be identified. Anticipated construction staging would be at the west end of Markeley Lane between Viking Lane and Peabody Road, which consists of an undeveloped, fenced area as shown on Figure 2-4. Construction workers, equipment and deliveries would access the project site via Markeley Lane, DeRonde Drive, Dobe Lane, and Air Base Parkway. Once construction activities are complete, staging areas would be returned to existing conditions. During construction, workers would arrive at the site at 7:00 a.m.

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Potential Staging Area

Project Area

FIGURE 2-4

N

0 100 200

FEET

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California

Potential Staging Area

SOURCE: City of Fairfield; Nearmap (06/2024).

I:\2023\20231438\GIS\MXD\Project_2025-01\Figure 2b_Potential Staging Area.mxd (1/30/2025)

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and leave the site at 5:00 p.m. All construction equipment, including construction worker vehicles, would be staged on the project site for the duration of the construction period. No nighttime work is currently anticipated.

Construction of the proposed project would require roadway excavation, drainage facilities, asphalt and concrete paving, and installation of conduit for pathway lighting and cameras. During project construction, local roadways would remain open; however, temporary lane closures may be required. Final details regarding trail and roadway operations during the construction phase and location and size of temporary construction easements and staging areas would be identified during final project design.

The contractor would employ the use of heavy construction machinery, likely including excavators, backhoes, rollers, loaders, and pickup trucks to off-haul soil. Construction of the proposed trail alignment would require approximately 9,600 cubic yards of cut material, which would be collected and may be off-hauled by the construction contractor to an approved facility. The maximum depth of excavation is anticipated to be approximately 5 feet for pathway light pole foundations and 2.5 feet for pavement widening.

2.5 REQUIRED PERMITS AND APPROVALS

This IS/MND is intended to serve as the CEQA document for all actions associated with the project, including all discretionary approvals requested or required of the City to implement the project. In addition, this IS/MND is the reference document for the formulation and implementation of a Mitigation Monitoring and Reporting Program for the proposed project.

The project may require approvals, permits, or authorization from other agencies, classified as "Responsible Agencies" under CEQA. According to Section 15381 of the *State CEQA Guidelines*, a Responsible Agency is defined as a public agency other than the Lead Agency that will have discretionary approval power over the proposed project or some component of the project, including mitigation. These agencies include, but are not limited to, the agencies identified in Table 2.A.

Table 2.A: Potential Permits and Approvals

Regulatory Agency	Permits/Approvals
Union Pacific Railroad	Construction and Maintenance
United States Air Force	Easement, Construction and Maintenance
Fairfield Unified School District	Easement

Source: Compiled by LSA (2023).

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3.0 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" as indicated by the checklist in Section 4.0.

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

3.1 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed 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 proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) 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 proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

David Vang — Signature

2/19/26 — Date

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4.0 CEQA ENVIRONMENTAL 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. In non-urbanized areas, 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 a 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. Would the project have a substantial effect on a scenic vista? ***(Less Than Significant Impact)***

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The City of Fairfield's Scenic Vistas and Roadways Plan (SVRP) [7] was prepared and adopted with the purpose of ensuring that the visual integrity of the City of Fairfield's (City) scenic views and scenic roads is preserved as Fairfield develops and grows. The SVRP identifies the scenic landscapes and road corridors where visual character should be preserved and designates them as "Scenic Vista Areas" and "Scenic Roadways". The nearest and most visible Scenic Vista Area to the project site is the Cement Hill Range Scenic Vista Area located northwest of the project site. No Scenic Roadways exist within or adjacent to the project site. The City's General Plan Open Space, Conservation, and Recreation Element includes policies to guide development within these Scenic Vista Areas and maintain the scenic vistas of the rolling hills are seen from the urban areas of Fairfield.[8]

Visible elements of the proposed project would include the proposed trail, wayfinding signage, lighting, and other trail infrastructure. Overall, the trail would largely be surrounded by existing residential, educational, commercial, railroad, and open space land uses. Trail design would not include tall structures or landscaping that might obscure views of the surrounding rolling hills and would largely consist of low-lying roadway improvements. Due to their relatively small scale,

7 City of Fairfield. 1999. *Scenic Vistas and Roadways Plan*. June 15. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/366/637520967253430000 (accessed October 1, 2024).

8 City of Fairfield. 2013b. *City of Fairfield General Plan Open Space, Conservation, and Recreation Element*. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/3178/637546871949870000 (accessed June 7, 2024).

proposed trail improvements would not result in substantial adverse effects to scenic vistas. Therefore, this impact would be **less than significant**.

b. Would the project 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 Legislature created California's Scenic Highway Program in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. A highway may be designated as "scenic" based on the expanse of the natural landscape that can be seen by travelers, the scenic quality of that landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A Scenic Corridor is described as the land generally adjacent to and visible from such a highway and is usually limited by topography and/or jurisdictional boundaries. In addition to State highways, county roads are also eligible for scenic designation.

According to the California Department of Transportation (Caltrans),[9] the proposed project is not within view of an officially designated or eligible State Scenic Highway. The closest officially designated State Scenic Highway is the segment of State Route 160 in Sacramento County, approximately 20 miles east of the project site. Given this distance and the intervening development and topography, the proposed project would not be visible from this State Scenic Highway.

As described above, no City-designated Scenic Roadways are within or adjacent to the project site. The nearest City-designated Scenic Roadways, as identified in the SVRP, are the future Manuel Campos Parkway and the future Walters Road located to the north and west, respectively. Due to the distance of these roadways to the project site and intervening development, the project site is not visible from these roadways.

Therefore, no substantial damage to scenic resources within a State scenic highway would occur as a result of implementation of the proposed project. Impacts related to scenic resources would be **less than significant**.

c. In non-urbanized areas, would the project 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 a 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)***

The proposed project would result in the construction of Class I, Class III and Class IV trails and pedestrian paths connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed trail would be constructed primarily within or adjacent to

[9] California Department of Transportation (Caltrans). n.d. *California State Scenic Highway System Map*. Website: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed June 6, 2024).

existing roadways. Under existing conditions, the project area consists of both developed areas and undeveloped land. The proposed trail would be visible from multiple publicly accessible vantage points, including local roadways, and existing schools.

Construction activities would result in temporary visual changes (e.g., construction equipment, signage, and dust) within the project area, resulting in temporary visual impacts during the proposed project's approximately 12-month construction phase. However, construction of the proposed project would be temporary and construction equipment required for trail construction would be removed following completion of the trail.

Although implementation of the proposed project could alter the visual character of the project site through the provision of the trail and associated trail facilities, lands along the trail alignment are largely developed (or proposed for development) with residential, commercial, and public facilities (e.g., schools); therefore, construction of a trail within this landscape would not adversely change its visual character or quality. As such, implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, and this impact would be **less than significant.**

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ***(Less Than Significant Impact)***

Surrounding land uses consist primarily of residential, educational, commercial, railroad, and open space land uses. Light sources in the project vicinity include lights associated with nearby residences and commercial development, existing streetlights on local roadways, and vehicle headlights/ taillights. Daytime sources of glare include reflections off light-colored surfaces and windows.

Lighting would be installed along the proposed trail alignment to provide safety and security for trail users but would not create a new source of substantial light in the project area. At night, these new sources of light would be visible; however, the addition of new light sources associated with the proposed trail would generally blend in with surrounding development and would represent a continuation of existing urban development within this area of Fairfield.

During daylight hours, trail users could experience some glare due to light reflecting off vehicles parked or traveling on local roadways; however, the glare would be limited and would not substantially impact the visual experience of trail users. Furthermore, these existing sources of glare would not increase with development of the proposed project. The proposed project would not include installation of any facilities that would create new sources of glare. Therefore, the proposed project would not affect day or nighttime views in the area. This impact would be **less than significant**.

4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	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?	☐	☐	☐	☒

a. Would the project 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 majority of the proposed trail alignment is within land classified as "Urban and Built-Up Land" by the California Department of Conservation Farmland Mapping and Monitoring Program.[10] Urban and Built-Up land is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Other portions of the trail alignment are within land classified as "Grazing Land." Grazing land includes land on which the existing vegetation is suited to the grazing of livestock. No Prime Farmland, Unique Farmland, or Farmland of Statewide

[10] California Department of Conservation. 2016. Division of Land Resource Protection. *California Important Farmland Finder (map)*. Website: maps.conservation.ca.gov/dlrp/ciff (accessed June 6, 2024).

Importance exists in the project vicinity. Therefore, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, and there would be **no impact**.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ***(No Impact)***

The California Land Conservation Act of 1965, also referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or open space use. The California Department of Conservation maps designate the project site as "Urban and Built-Up Land" and "Grazing Land." No portion of the project site is subject to a Williamson Act contract.[11] The trail alignment is proposed on lands zoned as Train Station Specific Plan – Planned Development (TS-PD), Open Space Conservation (OS/C), Public Facility (PF), Service Commercial (CS), and Thoroughfare Commercial (CT). None of these zoning designations allow for agricultural use. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract and there would be **no impact**.

c. Would the project 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 proposed trail alignment is along the right-of-way of urbanized land and open grazing land. The project site is not used for timberland production, nor is it zoned for forest land or timberland. No forest lands or timberland exist on or around the project site. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. **No impact** would occur.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use? ***(No Impact)***

Refer to Section 4.2.c. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses, and **no impact** would occur.

e. Would the project 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? ***(No Impact)***

Refer to Sections 4.2.a and 4.2.c. The project site is located within an existing, largely urban environment. Implementation of the proposed project would not 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 forestland to non-forest use. Therefore, the proposed project would not adversely affect agricultural or forestry resources, and **no impact** would occur.

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[11] California Department of Conservation. n.d. *California Williamson Act Enrollment Finder*. Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html (accessed October 24, 2024).

4.3 AIR QUALITY

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

The project site is in Fairfield, Solano County, California and is within the jurisdiction of the Bay Area Air District (Air District), which regulates air quality in the San Francisco Bay Area and Solano County. Air quality conditions in the San Francisco Bay Area have improved significantly since the Air District was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In the air basin exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Within the Air District, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter 10 microns or less in diameter (PM_{10}), and lead have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The Air District is under State non-attainment status for ozone and particulate matter standards. The Air District is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal $PM_{2.5}$ 24-hour standard.

*a. Would the project conflict with or obstruct implementation of the applicable air quality plan? **(Less Than Significant with Mitigation Incorporated)***

The applicable air quality plan is the Bay Area 2017 Clean Air Plan (Clean Air Plan),[12] which was adopted on April 19, 2017. The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate.

[12] Bay Area Air District. 2017a. *Clean Air Plan*. April 19.

Consistency with the Clean Air Plan can be determined if the project (1) supports the goals of the Clean Air Plan, (2) includes applicable control measures from the Clean Air Plan, and (3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

Clean Air Plan Goals. The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce greenhouse gas emissions and protect the climate.

The Air District has established significance thresholds for project construction and operational impacts at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the region's attainment of air quality standards. The health and hazard thresholds were established to help protect public health. As discussed below, implementation of the proposed project would result in less than significant operation-period emissions and, with implementation of Mitigation Measure AIR-1, which requires the Air District's Basic Best Management Practices be implemented during construction, the project would result in less than significant construction-period emissions. Therefore, the project would not conflict with the Clean Air Plan goals.

Clean Air Plan Control Measures. The control strategies of the Clean Air Plan include measures in the following categories: Stationary Source Measures, Transportation Measures, Energy Measures, Building Measures, Agriculture Measures, Natural and Working Lands Measures, Waste Management Measures, Water Measures, and Super-Greenhouse Gas (GHG) Pollutant Measures.

Stationary Source Control Measures.The Stationary Source Measures, which are designed to reduce emissions from stationary sources such as metal melting facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by the Air District and then enforced by Air District's Permit and Inspection programs. Since the project would not include any stationary sources, the Stationary Source Measures of the Clean Air Plan are not applicable to the project.

Transportation Control Measures.The Air District identifies Transportation Control Measures as part of the Clean Air Plan to decrease emissions of criteria pollutants, toxic air contaminants (TACs), and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The proposed project involves the construction of a mixture of Class I,[13] Class III[14] and Class IV[15] trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would entail development that would encourage

[13] Class I Bikeways (Bike Paths) consist of off-road paths and trails, including multi-use trails. Class I bikeways are not on streets shared with vehicles, but separate places for bikes and other recreational uses.

[14] Class III Bikeways (Bike Routes) consist of bicycle routes, which are preferred routes for people on bikes as compared to other alternatives. These are shared facilities with vehicles and other road users, often marked by signs appointing them as such and often include sharrows.

[15] Class IV Bikeways (Separated Bikeways) consist of bikeways for the exclusive use of bicycles and include a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

walking and bicycling. The walking and bikeways would be connected to the surrounding land uses; therefore, the project would support the ability to use alternative modes of transportation and would promote initiatives to reduce vehicle trips and vehicle miles traveled (VMT). As such, the project would not conflict with the Air District's initiatives to reduce vehicle trips and VMT and would provide access to alternate means of transportation.

Energy Control Measures. The Clean Air Plan also includes Energy Control Measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area and by decreasing the carbon intensity of the electricity used by switching to less GHG intensive fuel sources for electricity generation. Since these measures apply to electrical utility providers and local government agencies (and not individual projects), the Energy Control Measures of the Clean Air Plan are not applicable to the proposed project.

Building Control Measures. The Air District has authority to regulate emissions from certain sources in buildings such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes, to facilitate adoption of best GHG control practices and policies. The proposed project would consist of a mixture of Class I, Class III, and Class IV trails; therefore, the Building Control Measures of the Clean Air Plan are not applicable to the proposed project.

Agriculture Control Measures.The Agriculture Control Measures are designed to primarily reduce emissions of methane. Since the project does not include any agricultural activities, the Agriculture Control Measures of the Clean Air Plan are not applicable to the proposed project.

Natural and Working Lands Control Measures.The Natural and Working Lands Control Measures focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to enact ordinances that promote urban-tree plantings. Since the project does not include the disturbance of any rangelands or wetlands, the Natural and Working Lands Control Measures of the Clean Air Plan are not applicable to the proposed project.

Waste Management Control Measures.The Waste Management Measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The proposed project would consist of a mixture of Class I, Class III, and Class IV trails; therefore, the Waste Management Control Measures of the Clean Air Plan are not applicable to the proposed project.

Water Control Measures.The Water Control Measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Since these measures apply to publicly owned treatment works and local government agencies (and not individual projects), the Water Control Measures are not applicable to the proposed project.

Super-GHG Control Measures. The Super-GHG Control Measures are designed to facilitate the adoption of best GHG control practices and policies through the Air District and local government agencies. Since these measures do not apply to individual projects, the Super-GHG Control Measures are not applicable to the project.

Clean Air Plan Implementation. As discussed above, the proposed project would generally implement the applicable measures outlined in the Clean Air Plan, including Transportation Control Measures. In addition, with implementation of Mitigation Measure AIR-1, the project would result in less than significant construction-period emissions and would therefore not conflict with the Clean Air Plan goals. Therefore, the project would not disrupt or hinder implementation of a control measure from the Clean Air Plan, and this impact would be **less than significant with mitigation incorporated**.

b. Would the project 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 Air District is currently designated as a non-attainment area for State and national ozone standards and national particulate matter ambient air quality standards. The Air District's non-attainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the Air District considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses the potential construction- and operation-related air quality impacts and CO impacts of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxide (NO_x), reactive organic gases (ROG), directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Project construction would involve grubbing and land clearing, grading and excavation, drainage, utilities, sub-grade, and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an

additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The Air District has established standard measures for reducing fugitive dust emissions (PM_{10}). With the implementation of these Basic Best Management Practices (BMPs), fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROGs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2022.1., consistent with Air District recommendations. Construction activities are expected to begin in July 2027 and extend for approximately 12 months, which was included in CalEEMod. In addition, the proposed project would include the export of 9,600 cubic yards of soil, which was included in CalEEMod. This analysis additionally assumes the use of Tier 2 construction equipment. Other construction details are not yet known; therefore, default assumptions (e.g., construction equipment and construction fleet activities) from CalEEMod were used. Construction-related emissions are presented in Table 4.3.A. CalEEMod output sheets are included in Appendix A.

Table 4.3.A: Project Construction Emissions (in Pounds Per Day)

Project Construction	ROG	NO_x	Exhaust PM_{10}	Fugitive Dust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$
2027	0.5	14.5	0.5	0.5	0.4	0.1
2028	0.4	12.2	0.4	0.4	0.3	0.1
Maximum Average Daily Emissions	0.5	14.4	0.5	0.5	0.4	0.1
Air District Thresholds	**54.0**	**54.0**	**54.0**	**BMP**	**82.0**	**BMP**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (January 2026).
Air District = Bay Area Air District
BMP = best management practices
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic gases

As shown in Table 4.3.A, construction emissions associated with the project would be less than significant for ROG, NO_x, $PM_{2.5}$, and PM_{10} exhaust emissions. The Air District requires the implementation of the Basic BMPs to reduce construction fugitive dust impacts to a less than significant level as follows:

Mitigation Measure AIR-1

In order to meet the Bay Area Air District (Air District) fugitive dust threshold, the following Basic Best Management Practices shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact the City of Fairfield regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

As shown in Table 4.3.A, construction emissions associated with the proposed project would be below established thresholds. In addition, consistent with Air District requirements, Mitigation Measure AIR-1 requires implementation of Basic BMPs during construction to control fugitive dust emissions. Therefore, with implementation of this measure, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the

project region is nonattainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant with mitigation incorporated.

Operational Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would not include the construction of any new buildings, requiring any new or relocated utility lines, such as natural gas, water, or sewer lines. In addition, as detailed in Section 4.17, Transportation, since the proposed project would develop bicycle and pedestrian facilities connecting the Fairfield-Vacaville Hannigan Train Station with existing uses in the area, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site. In addition, the proposed project would connect to the Fairfield-Vacaville Hannigan Train Station, which is considered high-quality transit. As such, the project would not result in a significant increase in the generation of vehicle trips or VMT that would increase air pollutant emissions. The project would not result in a substantial source of mobile, energy, or area source emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard. Impacts would be less than significant, and no mitigation is required.

Localized CO Impacts. Emissions and ambient concentrations of CO have decreased dramatically in the Bay Area with the introduction of the catalytic converter in 1975. No exceedances of the State or federal CO standards have been recorded at Bay Area monitoring stations since 1991. The Air District 2017 CEQA Guidelines[16] include recommended methodologies for quantifying concentrations of localized CO levels for proposed projects. A screening level analysis using guidance from the Air District CEQA Guidelines was performed to determine the impacts of the project. The screening methodology provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the Air District CEQA Guidelines, a proposed project would result in a less than significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.
- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

[16] Bay Area Air District. 2017b. California Environmental Quality Act Air Quality Guidelines. May.

- The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

Implementation of the proposed project would not conflict with the policies or programs of the Solano Countywide Active Transportation Plan. The proposed project would entail development that would encourage walking and bicycling. As identified in Section 4.17, Transportation, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site and would result in a less than significant VMT impact. Therefore, the project's contribution to peak hour traffic volumes at intersections in the vicinity of the project site would be well below 44,000 vehicles per hour. Therefore, the proposed project would not result in localized CO concentrations that exceed State or federal standards, and impacts would be less than significant. No mitigation is required.

Overall, with implementation of Mitigation Measure AIR-1 and because operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant or result in localized CO concentrations that exceed State or federal standards, impacts related to 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 would be **less than significant with mitigation incorporated**.

c. Would the project expose sensitive receptors to substantial pollutant concentrations? ***(Less Than Significant with Mitigation Incorporated)***

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day-care centers, nursing homes, hospitals, and residential dwelling units. The closest sensitive receptor would be the Vanden High School buildings within approximately 15 feet of the proposed trail alignment, particularly the buildings along De Ronde Drive.

According to the Air District, a project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10 in 1 million, increase non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). A significant cumulative impact would occur if the project in combination with other projects within a 1,000-foot radius of the project site would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100 in 1 million, an increased non-cancer risk of greater than 10 on the hazard index (chronic), or an ambient $PM_{2.5}$ increase greater than 0.8 $\mu g/m^3$ on an annual average basis. Impacts from substantial pollutant concentrations are discussed below.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement the Air District's Basic BMPs as specified in Mitigation Measure AIR-1. With adherence to Mitigation Measure AIR-1, project construction emissions would be below the Air District's significance thresholds. Additionally, due to the linear nature of the project, construction activities at any one

receptor location would take place for a limited duration. Once the project is constructed, the project would not be a source of substantial emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction or operation. With implementation of Mitigation Measure AIR-1, potential impacts would be **less than significant with mitigation incorporated**.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ***(Less Than Significant Impact)***

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be **less than significant**, and no mitigation is required.

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 Wildlif or U.S. 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?	☐	☐	☐	☒

4.4.1 Existing Conditions

The project area is primarily developed with the exception of the portions from the Fairfield-Vacaville Hannigan Train Station south to Markeley Lane and along the north side of Markeley Lane, which are currently undeveloped. Of these undeveloped areas, the western portions are designated for development while the eastern portions are identified for Open Space/Vernal Pool Conservation under the Fairfield Train Station Specific Plan (TSSP).[17] The remaining portions of the project area, including the portion along the south side of Markeley Lane, the portion along De Ronde Drive and the portion along Air Base Parkway, are developed. The alternative alignment from Dobe Lane to Air Base Parkway would run on a constructed flood control maintenance road along a rerouted section of Union Creek. Approximately 50 percent of the proposed project would be constructed within City of Fairfield right-of-way with parking-lot or landscaped edges.

[17] City of Fairfield. 2011. *Fairfield Train Station Specific Plan Area Land Use Plan.* August 2. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/4200/637553944997130000 (accessed June 2025).

Easements would be required from the residential development located between the Fairfield-Vacaville Hannigan Train Station south portal and Markeley Lane. In addition, an easement would be required from the United States Air Force to construct the trail on the west side of Travis Air Force Base adjacent to the existing storm drain channel. A portion easement may also be required from the Travis Unified School District depending which trail route is ultimately selected. Potential driveway conforms at Forbes Street may be required on the Travis Air Force Base property.

The topography within the project area is flat. Much of the site was historically used for cattle ranching and has been subjected to some level of agricultural disturbance. The area has been extensively leveled for agricultural use, which has resulted in substantial disturbance and alteration of natural habitats on the site. Although vernal pools and mesic grassland still persist north of Markeley Lane, the natural mound and swale micro topography that existed historically has been virtually eliminated from the project site. The current vegetation has been largely converted to communities dominated by nonnative annual grasses, such as Italian ryegrass (*Festuca perennis*) and Mediterranean barley (*Hordeum marinum*), except in a few remaining vernal pools. The project site is composed primarily of nonnative annual grassland with scattered trees consisting of black walnut (*Juglans hindsii*), Arizona cypress (*Cupressus arizonica*), bluegum eucalyptus (*Eucalyptus globulus*), and silver wattle (*Acacia dealbata*).

Native soils on the site consist of Antioch-San Ysidro complex, 0 to 2 percent slopes, Antioch-San Ysidro complex, thick surface, 0 to 2 percent slopes, and Dibble-Los Osos clay loams, 2 to 9 percent slopes;[18] however, imported fill also seems to be present within the roadway edges and existing developments within the project site.

Methods. A list of sensitive wildlife and plant species potentially occurring within the project site was compiled to evaluate the potential impacts associated with development of the proposed project. Sources used to compile the list include the California Natural Diversity Database (CNDDB),[19] California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California,[20] and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation list.[21] Permits and the Biological Opinion (81420-2008-F-1216-1) issued in 2017 for the proposed Markeley Lane Subdivision Project were reviewed to identify special-status species occupancy and impacts. The determination of whether a species could potentially occur within the project site was based on the availability of suitable habitat within the species' known range, as well as known occurrences of the species in or adjacent to the project site according to the CNDDB.

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18 University of California, Davis. n.d. UC Davis SoilWeb: An Online Soil Service. Website: https://casoilresource.lawr.ucdavis.edu/gmap/ (accessed September 23, 2024).

19 California Department of Fish and Wildlife (CDFW). 2025. California Natural Diversity Database, commercial version dated May 12, 2025. Biogeographic Data Branch, California Department of Fish and Wildlife, Sacramento.

20 California Native Plant Society (CNPS). 2025. Inventory of Rare and Endangered Plants (online edition). Sacramento: California Native Plant Society. Website: www.cnps.org/inventory (accessed May 12, 2025).

21 United States Fish and Wildlife Service (USFWS). 2025. Information for Planning and Consultation. May 12, 2025.

As described above, the project area north of Markeley Lane lies within the TSSP.[22] The City of Fairfield (City) adopted the TSSP in July 2011 for a growth area in northeastern Fairfield consisting of almost 3,000 acres focused on the Capital Corridor Train Station (Fairfield-Vacaville Hannigan Train Station) at the southeast corner of Peabody Road and Vanden Road. The entire project area also lies within the boundary of the Draft Solano Habitat Conservation Plan (HCP).[23] The Draft Solano HCP has been developed to support the issuance of a Section 10(a)1(B) incidental take permit under the federal Endangered Species Act (FESA) of 1973 (as amended). The proposed project must also comply with Policy OSCR-3.1 of the City of Fairfield's General Plan, which states that, until the Draft Solano HCP is adopted, projects must comply with applicable Draft Solano HCP avoidance, minimization, and mitigation measures in the Draft Solano HCP. Both the TSSP and the HCP provide background and guidance for assessment of the effects to biological resources resulting from the proposed project.

Field Survey. LSA conducted a general biological field survey on April 3, 5, 9, and 19, 2024 to identify plant and wildlife species, assess habitat for special-status species, and identify other sensitive biological resources such as jurisdictional waters or wetlands, sensitive natural communities, and/or nest sites for raptors and other native birds. Plant species names are consistent with *The Jepson Manual: Vascular Plants of California*, Second Edition.[24]

Results. As noted above, the project site is composed primarily of annual grassland habitat with scattered trees and shrubs. Additionally, the survey area contains several jurisdictional aquatic features, including Union Creek, which borders the eastern limit of the project area and potentially two roadside ditches, which are along the north side of Markeley Lane within the project site. However, no formal aquatic delineation was completed at the time of the survey.

No special-status plants were observed in the project site during the reconnaissance survey; however, moderate suitable habitat is present for three special-status wildlife species as described in more detail below.

Habitats and Vegetation Communities. The following habitats and vegetation communities are located within the project site.

- *Annual Grassland.* The annual grassland community on the site is dominated by a variety of non-native grasses including wild oats (*Avena fatua*), Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), and medusa head (*Elymus caput-medusae*). This community also contains a small number of native species including blue wild rye (*Elymus glaucus*), 6-week fescue (*Festuca microstachys*), and spikeweed (*Centromadia pungens*).

- *Ruderal Vegetation.* As noted above, most of the site supports annual grassland, which also contains ruderal vegetation at roadside edges or areas subject to repeated disturbance. These areas are dominated by non-native weedy forbs and grasses, such as field mustard (*Brassica*

22 City of Fairfield. 2011. *Fairfield Train Station Specific Plan.* July and Addendum 2023.

23 Solano County Water Agency. 2025. *Solano Habitat Conservation Plan. Administrative Draft.* May.

24 Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, eds. 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. Berkeley: University of California Press.

rapa), cut-leaved geranium (*Geranium dissectum*), bristly ox-tongue (*Helminthotheca echioides*), Bermuda buttercup (*Oxalis pes-caprae*), radish (*Raphanus sativus*), and milk thistle (*Silybum marianum*). Also present are patches of sweet fennel (*Foeniculum vulgare*), and Himalayan blackberry (*Rubus armeniacus*), which are all non-native weedy plants.

- *Union Creek.* A channelized portion of Union Creek bisects the eastern portion of the project area, where the alternate trail alignment is proposed. The channel is incised and contains emergent vegetation such as bull rush (*Scirpus* sp.), cattail (*Typha* sp.), and various rushes (*Juncus* spp.).

- *Roadside Ditches.* The adjacent roadside ditches along the north side of Markeley Lane appear ephemeral in nature. Vegetation is either absent within the drainage or of similar composition to the adjacent annual grasslands. Vegetation consists of wild oats, Italian ryegrass, and soft chess.

- *Developed.* The developed portions of the project site are along the southern edge of Markeley Lane, along De Ronde Drive, and along Parker Road/Air Base Parkway. These areas include a high school and subsequent parking lots, beyond that the greater area contains medium density housing to the southwest and east. Natural vegetation is generally absent from the developed parts of the project site; however, annual grassland species from the adjacent landscape occur at low frequency within this area. Additionally, several landscaped areas were observed, which contain common decorative species.

Wildlife. The most common wildlife observed on the site or in adjacent area were birds, including Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), black phoebe (*Sayornis nigricans),* American crow (*Corvus brachyrhynchos*), tree swallow (*Tachycineta bicolor*), cliff swallow (*Petrochelidon pyrrhonota),* European starling (*Sturnus vulgaris*), northern mocking bird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), Brewer's blackbird (*Euphagus cyanocephalus*); all these birds are common species in the suburban landscapes of Solano county. No heron or egret rookeries were observed in the trees near the project site.

Raptor nests are known to be present within the eucalyptus grove to the near the Fairfield-Vacaville Hannigan Train Station. The grove has hosted a Swainson's hawk (*Buteo swainsoni*), great horned owl, and red-tailed hawk pairs intermittently over the last 5 years.

No reptiles or amphibians were observed during the field survey. However, northwestern pond turtles (*Actinemys maramota*) are known to occur upstream in the Union Creek Drainage and the project site is in upland habitat within dispersal distance of known breeding populations of California tiger salamanders (*Ambystoma californiense*). No mammals were directly observed, but the occurrence of common local species, such as the California vole (*Microtus californicus*) and Botta's pocket gopher (*Thomomys bottae*), was indicated by the presence of their runways and burrows, respectively.

a. Would the project 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 Game or U.S. Fish and Wildlife Service? ***(Less Than Significant with Mitigation Incorporated)***

Special-status species are defined as:

- Species that are listed, formally proposed for listing, or designated as candidates for listing as threatened or endangered under FESA
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA)
- Plant species on California Rare Plant Rank Lists 1A, 1B, and 2 in the CNPS Inventory of Rare and Endangered Plants
- Animal species designated as Species of Special Concern or Fully Protected by the California Department of Fish and Wildlife (CDFW)
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the *State CEQA Guidelines*
- Species considered a taxon of special concern by the relevant local agencies

Eleven federally listed plant and animal species and two proposed threated species that occur in the vicinity or have suitable habitat in the project vicinity were analyzed. Two species, northwestern pond turtle (*Actinemys marmorata*) and California tiger salamander (*Ambystoma californiense*) were found to have potential to occur on the project site or have suitable occupied habitat adjacent to the site. Monarch butterfly (*Danaus plexippus*) may also migrate through and potentially breed in project area.

The CNDDB search and review of the TSSP and other available information provided occurrence records for the following special-status plant species (as defined above) within 1 mile of the project site: alkali milk vetch (*Astragalus tener* var. *tener*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), brittlescale (*Atriplex depressa*), Contra Costa goldfields (*Lasthenia conjugens*), dwarf downingia (*Downingia pusilla*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Extriplex joaquinana*), and Suisun Marsh aster (*Symphyotrichum lentum*). All are considered vernal pool or wetland specialists and may occur within the vicinity of the project.

The CNDDB search also provided occurrence records for four special-status animal species within 1 mile of the project site: Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), and tricolored blackbird (*Aeglaius tricolor*). Additional special-status species that could occur on the site occasionally include the white-tailed kite (*Elanus leucurus*) and loggerhead shrike (*Lanius ludovicianus).*

The significance of impacts to biological resources depends in large part on the final trail route selected and timing of construction for the proposed project. For consistency, mitigation measures have been adapted from the *Final Environmental Impact Report for the Fairfield Train Station Specific Plan* (TSSP EIR)[25] and the *Draft Environmental Impact Report Addendum Fairfield Train Station Specific Plan* (2023 Addendum).[26] Where applicable, additional measures from the Solano HCP and other sources have been added to address species that were not addressed in detail in the TSSP. References to measures that are adapted from the TSSP EIR and 2023 Addendum are provided where applicable.

Special-status Plants. Documented occurrences of Contra Costa goldfields, pappose tarplant, and saline clover occur in vernal pools abutting Markeley Lane, particularly east of De Ronde Road (Figure 4-1). The remaining undeveloped portions of the project area appear regularly disced/mowed and are in a disturbed condition dominated by nonnative species characteristic of disturbed areas.

Development of the proposed trail along the north side of Markeley Lane, particularly the proposed alternate alignment that extends along Markeley Lane east of De Ronde Road, could adversely affect special-status plant species through direct removal or disturbance to the habitats in which they grow. Consistent with the TSSP EIR, the 2023 Addendum and the Draft Solano HCP, impacts to annual special-status plant species would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1a (TSSP Mitigation Measures 4.4-3a) and BIO-1b (TSSP Mitigation Measure 4.4-3b), which require permit authorization for Contra Costa Goldfields, pre-construction surveys for special-status plants, and preparation of a mitigation and monitoring plan, and compensatory mitigation if special-status plant species cannot be avoided.

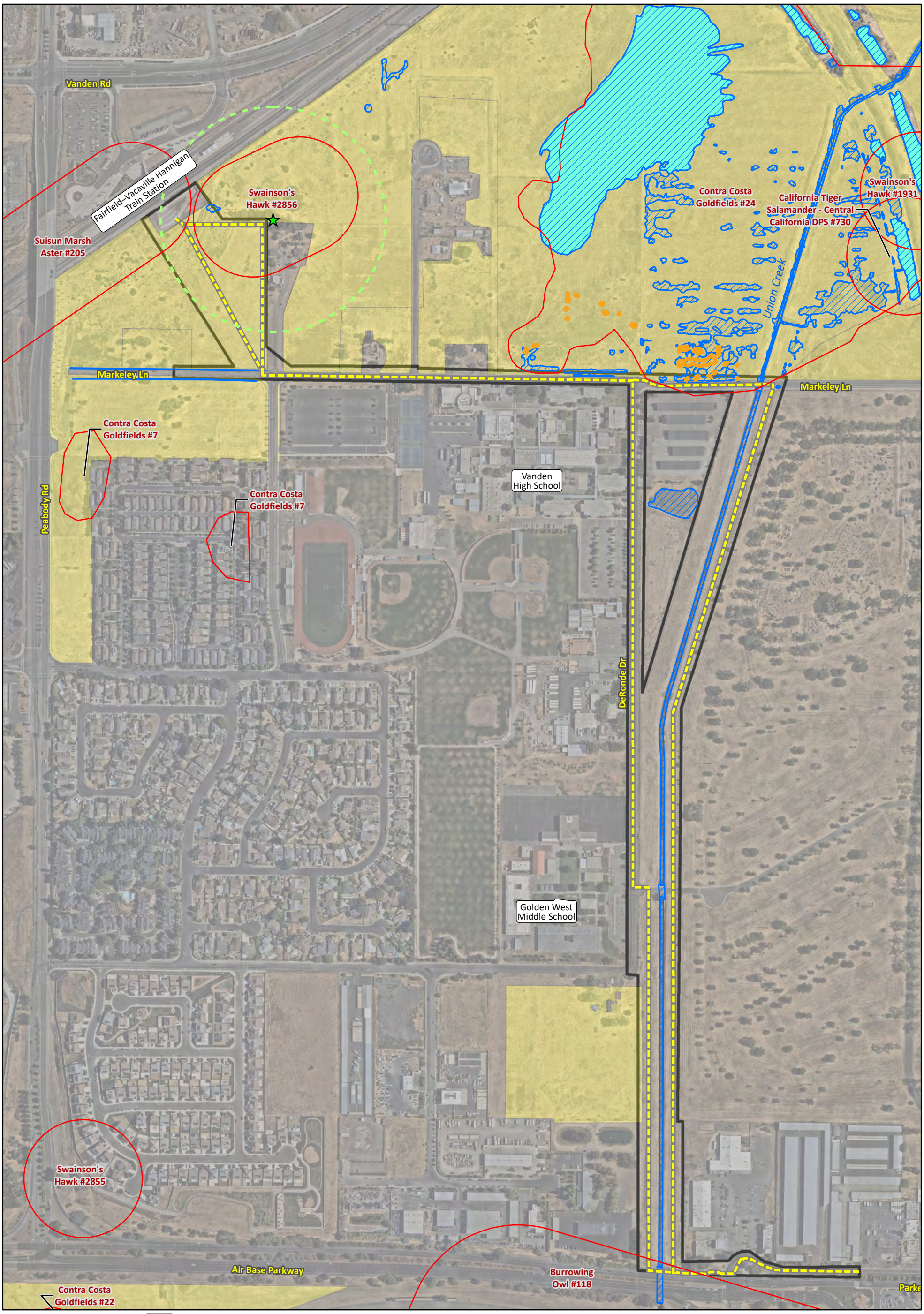
Mitigation Measure BIO-1a **Secure Authorization for Federally Listed Contra Costa Goldfields If Required and Implement All Permit Conditions (TSSP Mitigation Measures 4.4-3a).**

1. To avoid and minimize direct and indirect impacts on Contra Costa goldfields in the Specific Plan Area and off-site improvement areas, the following performance criteria/design guidelines provided in the Conservation Strategy of the draft HCP shall be implemented:

    a. New roads and expansion of existing roads shall incorporate design measures to maintain hydrological connectivity, such as culverts and underpasses.

[25] AECOM. 2011. *Final Environmental Impact Report for the Fairfield Train Station Specific Plan State Clearinghouse #2010042093*. July.

[26] LSA. 2023. *Draft Environmental Impact Report Addendum Fairfield Train Station Specific Plan, City of Fairfield, California, State Clearinghouse No. 201004293*. February.



LSA

FIGURE 4-1

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California
Sensitive Biological Resources

SOURCE: CDFW CNDDB (05/2025); Nearmap (06/2024).

I:\2023\20231438\GIS\MXD\Bio Constraints\Figure 4-1_Biological Resources Constraints Map.mxd (6/24/2025)

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b. Individual projects shall not directly impact more than 10% of suitable Contra Costa goldfield habitat in the Specific Plan Area.

c. The project shall not directly impact more than 50% of current or historically occupied habitat in the Specific Plan Area.

d. The extent of occupied habitat shall be based on a minimum of two years of surveys. Occupied habitat shall be based on the total area of occupied wetland habitat, not just Contra Costa goldfield cover.

e. Preserve areas shall encompass at least 100 acres of suitable vernal pool grassland habitat.

2. To compensate for the direct loss of occupied Contra Costa goldfield habitat within core population areas (portions of Specific Plan Area east of Vanden Road) and potential habitat, watershed, and corridor areas (portions of Specific Plan Area west of Vanden Road); new, self-reproducing populations of Contra Costa goldfields shall be established at a ratio of 4:1, or other ratio as required in the final adopted HCP according to the following criteria outlined in the HCP:

   a. Establishment of new populations shall take place in constructed, restored, and enhanced wetlands within the known range of Contra Costa goldfields in Solano County. To the extent possible, habitat restoration and establishment of new populations shall occur within the open space areas of the Specific Plan Area in the same core area as the affected habitat. For on- site restoration and establishment to be feasible, unoccupied habitat that can be restored must be identified in the Specific Plan Area. It is likely that currently unoccupied habitat on the Noonan North and South sites could be restored for establishing new populations of Contra Costa goldfields.

   b. New populations shall be established from seed of plants that would be removed as a result of project development and if needed, additional seed from the affected population may be collected if necessary to establish new populations (affected populations are within core areas identified in the HCP). Seed and topsoil shall be salvaged from the occupied wetlands that would be removed by project development. Seed shall be collected from affected populations for at least one season prior to loss, but no more than 10% of the seed produced can

be removed from the overall population in a given growing season. All of the seed from plants in occupied habitat to be removed shall be harvested in the final harvest season. Collected seeds shall be stored at two different seed repositories, including the National Center for Genetic Resources Preservation in Fort Collins, Colorado, and a repository certified by the Center for Plant Conservation, such as the Rancho Santa Ana Botanic Garden, until reestablishment habitat is ready for planting.

c. The extent of occupied area and the flower density in compensatory reestablished populations shall be equal to or greater than the affected occupied habitat.

d. Reestablished populations shall be considered self producing when: i) plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and ii) reestablished habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar pool types and core areas (e.g., the Noonan Ranch Conservation Bank).

e. If success criteria are not met within 10 years of project implementation, the project applicant shall increase the preserved wetland restoration acreage by 50%. The project applicant shall provide bonds or other financial assurances to ensure implementation of the mitigation measures.

3. If the HCP is not adopted prior to implementing the project, project applicant(s) shall develop a mitigation and monitoring plan (MMP) for Contra Costa goldfields in consultation with USFWS. The MMP shall include detailed plans to compensate for the direct loss of occupied Contra Costa goldfield habitat at a ratio agreeable to USFWS and the City. At a minimum, the MMP shall include all of the measures listed above from the Draft HCP and shall include monitoring of preserved and compensatory reestablished populations annually for a minimum of 5 years to ensure plants are regenerating on a yearly basis without human intervention. If plants are not regenerating, reseeding and other measures (e.g., recontouring wetland habitat, hydrological remediation, weed management), as appropriate based on assessment by a qualified ecologist shall be implemented and monitoring continued until populations are self-sustaining.

4. All Contra Costa goldfields habitat mitigation lands shall be preserved in perpetuity and incompatible land uses shall be prohibited in habitat conservation areas.

Mitigation Measure BIO-1b **Conduct Special-Status Plant Surveys: Implement Avoidance and Mitigation Measures and Compensatory Mitigation for Special-status Plants (TSSP Mitigation Measure 4.43b).**

1. To mitigate for the potential loss or degradation of special-status plant species and habitat, the City shall adhere to the requirements described below:

    a. The City shall retain a qualified botanist to conduct protocol level preconstruction special-status plant surveys for all potentially occurring species for the selected alignment. The surveys shall be conducted no more than 5 years prior and no later than the blooming period before approval of grading or improvement plans or any ground disturbing activities, including grubbing or clearing, for any project phase, including off-site elements. If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report to the City Planning Division and no further mitigation shall be required. If a protocol level survey targeting all potentially occurring special-status plant species has been conducted on the specific project site in the previous 5 years, a preconstruction survey shall not be required because surveys conducted according to established guidelines are generally considered valid by the resource agencies for a period of 5 years. If the SHCP is approved at the time of project implementation and the applicant participates in the SHCP, special status plant surveys shall not be required in conservation areas designated as low to medium value.

    b. If special-status plant populations are present, the City shall consult with CDFW and USFWS, as appropriate depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts on any special-status plant population. Mitigation measures may include preserving and enhancing existing populations at ratios described below, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals.

    c. If impacts on special-status plant species are likely, a mitigation and monitoring plan shall be developed before the

approval of grading plans or any ground-breaking activity within 250 feet of a special-status plant population. The mitigation plan shall be submitted to the City of Fairfield Planning Division for review and approval. It shall be submitted concurrently to CDFW or USFWS, as appropriate depending on species status, for review and comment. The City shall consult with these entities before approval of the plan. The plan shall require maintaining viable plant populations in the Project area and shall identify avoidance measures for any existing population(s) to be retained and compensatory measures for any populations directly affected. Consistent with City of Fairfield General Plan policy, special-status plant populations shall be avoided to the maximum extent feasible. Possible avoidance measures include fencing populations before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. Mitigation for unavoidable impacts could include purchase of an existing off-site area known to support the special-status species to be affected, as well as preserving the site in perpetuity. Transplanting and/or reseeding of special-status plants is not proven to be an effective compensation method for most species; therefore, project proponents should avoid special-status plants for which transplanting techniques have not been proven or compensate for impacts by preserving other populations.

d. Minimum mitigation ratios shall be as follows for impacts to special status vernal plants such as Contra Costa goldfields or as specified in any incidental take permits issued by CDFW or USFWS:

   - For effects in designated development under the TSSP, the City shall preserve vernal pool and swale habitats at a ratio of 2:1 and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the time of effect or at a 2:1 ratio if habitats are restored concurrent with the effect.

   - For unavoidable impacts within the Vernal Pool Conservation Area/Open Space under the TSSP, the City shall preserve vernal pool and swale habitats at a ratio of 9:1, and restore vernal pool and swale habitats at a ratio of 1:1 if restored habitats are in place and functional at the

time of effect or at a 2:1 ratio if habitats are restored concurrent with the effect.

e. All mitigation lands shall be preserved via dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures. The details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, and other details, as appropriate to target the preservation of long-term viable populations.

With implementation of Mitigation Measures BIO-1a and BIO-1b, impacts to special-status plant species would be reduced to **less than significant with mitigation incorporated**.

Special-Status Wildlife Species and Nesting Birds. The following special-status wildlife species are known to or have the potential to occur on the project site or vicinity: Crotch's bumble bee (CESA candidate), California tiger salamander (CESA and FESA threatened), northwestern pond turtle (FESA proposed threatened), monarch butterfly (FESA proposed threatened), burrowing owl (CESA candidate), Swainson's hawk (CESA threatened), white-tailed kite (Fully Protected), and loggerhead shrike (CDFW California Species of Special Concern). All of the above-mentioned species are covered under the Draft Solano HCP with the exception of Crotch's bumble bee. All other species that were identified based on database searches are unlikely or have low potential to occur on the project site for one or more of the following reasons: the project site is outside of the known or historical range of the species; the project site lacks suitable habitat (e.g., marsh, estuarine, perennial stream, vernal pools with sufficient hydrology, chaparral, open forest, or sufficient nesting/roosting substrates); or the project site lacks connectivity with suitable habitat in the region.

Crotch's Bumble Bee. There were no observations of bumble bees present during the initial surveys; however, the area contains suitable forage and nesting habitat typical of open landscapes used by native bees. The closest known occurrence per CNDDB records is approximately 0.4 mile south of the project site.

Should Crotch's bumble bee colonies or overwintering queens be present in underground nests on future construction sites within the trail alignment, construction activities could adversely affect this species and its habitat. Consistent with CDFW avoidance measures, implementation of Mitigation Measures BIO-2a and BIO-2b, would reduce potential direct impacts to Crotch's bumble bee to a less than significant level by requiring preconstruction surveys, development of an avoidance plan, and take authorization, if needed.

Mitigation Measure BIO-2a **Crotch's Bumble Bee Pre-construction Surveys.** Prior to project construction, the City shall retain a qualified biologist to conduct a pre-construction survey consistent with *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*. Surveys shall be conducted by a qualified biologist

familiar with the behavior and life history of Crotch's bumble bees.

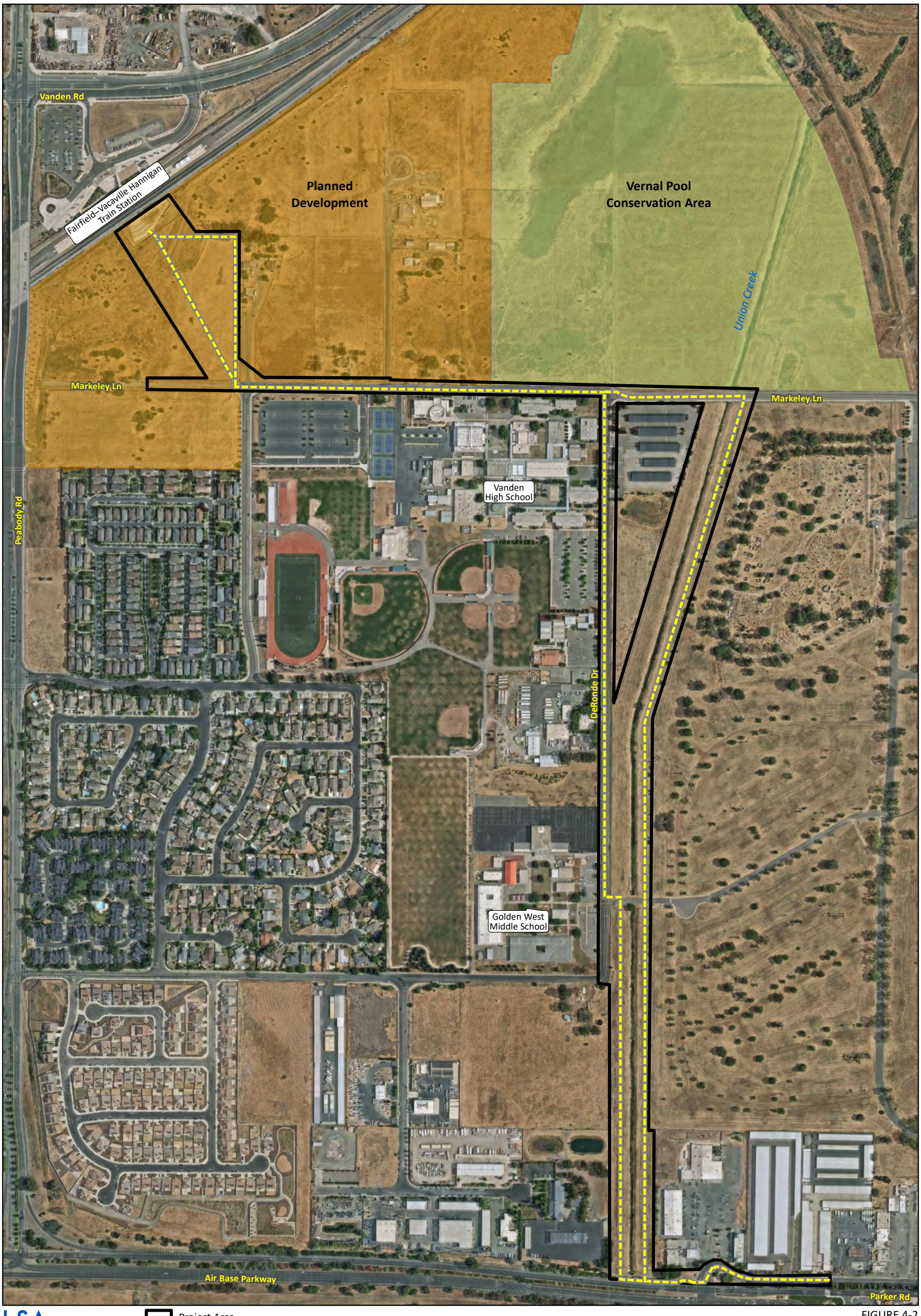
Surveys shall be conducted during the colony active period (i.e., April through August) prior to construction and when floral resources are in peak bloom. Bumble bees move nest sites each year, therefore, surveys shall be conducted each year that project work activities occur. The Qualified Biologist shall conduct a habitat assessment during the peak bloom period for floral resources on which Crotch's bumble bees feed. If no Crotch's bumble bees are identified, no further mitigations are required.

Mitigation Measure BIO-2b **Crotch's Bumble Bee Avoidance Plan.** If Crotch's bumble bees are detected during pre-construction surveys, a Crotch's bumble bee avoidance plan shall be developed and provided to CDFW for review prior to work activities involving ground disturbance or vegetation removal. The City shall incorporate CDFW's comments into the avoidance plan. If take of Crotch's bumble bee cannot be avoided, the City shall consult with CDFW pursuant to CESA and obtain an ITP before project activities may commence.

With implementation of Mitigation Measures BIO-2a and BIO-2b, impacts to Crotch's bumble bee would be **less than significant with mitigation incorporated.**

California Tiger Salamander and Vernal Pool Crustaceans. The closest known occurrence per CNDDB records is approximately 0.09 mile northeast (CNDDB Occurrence No. 730) of the project site. While the project site provides no suitable aquatic habitat for California tiger salamander, the project area north of Markeley Lane provides suitable upland habitat and occurs within potential dispersal distance of known breeding habitats (1.3 miles) for California tiger salamander. Although the project would not result in impacts to California tiger salamander breeding habitat, permanent and temporary impacts to upland California tiger salamander habitat from ground disturbance associated with trail construction would occur in the annual grasslands primarily north of Markeley Lane.

Seasonal wetlands in the project area may support one or more federally listed vernal pool crustaceans including vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*), as well as unlisted special-status species mid-valley fairy shrimp (*Branchinecta mesovallensis*) and California fairy shrimp (*Linderiella occidentalis*). The primary habitat areas for vernal pool crustaceans are in the Vernal Pool Conservation Area/Open Space identified in the TSSP (Figure 4-2). Implementation of the proposed project could result in permanent and temporary impacts to vernal pool habitat from ground disturbance associated with trail construction along Markeley Lane, where such habitat is present. Consistent with the TSSP EIR and the Draft Solano HCP, implementation of Mitigation Measure BIO-3 (TSSP Mitigation Measures 4.4-2a and -2b), which requires take authorization to be obtained prior to



LSA

Project Area

Proposed Bike Lane or Path

Train Station Specific Plan Land Use Designations

Planned Development (Residential, Park, and Detention Basin)

Vernal Pool Conservation Area

N

0 200 400

FEET

SOURCE: City of Fairfield (2025); Nearmap (06/2024).

I:\2023\20231438\GIS\MXD\Bio Constraints\Figure 4-2_Dev Zoning Designations from Train Station Specific Plan.mxd (6/24/2025)

FIGURE 4-2

Travis Safe Routes to School and Transit
City of Fairfield, Solano County, California

Development Zoning Designations from the Train Station Specific Plan

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project construction and compensatory mitigation to be provided, would reduce potential impacts to California tiger salamander and vernal pool crustaceans to a less than significant level.

Mitigation Measure BIO-3 **Secure Take Authorization for California Tiger Salamander, Vernal Pool Fairy Shrimp, and Vernal Pool Tadpole Shrimp and Implement All Permit Conditions; Preserve and Enhance Upland Habitat; Preserve and Create Breeding Habitat. (TSSP EIR Mitigation Measures 4.4-2a and -2b)**

1. No project construction shall proceed in areas supporting upland and movement habitat for California tiger salamander and vernal pool crustaceans north of Markeley Lane until take authorization has been obtained from the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), and the City has abided by all conditions in the take authorization, including conservation and minimization measures, intended to be completed before on-site construction.

2. The City shall preserve upland habitat at a minimum 3:1 ratio and create 0.01 acre of breeding habitat per acre of upland habitat removed or as specified in the USFWS and CDFW incidental take authorizations. All habitat mitigation lands shall be preserved in perpetuity and incompatible land uses shall be prohibited in habitat conservation areas.

With implementation of Mitigation Measure BIO-3, impacts to California tiger salamander and vernal pool crustaceans would be reduced to **less than significant with mitigation incorporated**.

Northwestern Pond Turtle. Although project activities would not directly impact Union Creek, the creek is perennial and provides suitable habitat for the northwestern pond turtle. The project would not result in permanent impacts to pond turtle aquatic habitat; however, construction activities would take place in adjacent uplands that could provide nesting and movement habitat for this species. Construction activities could result in indirect impacts such as noise disturbance and potential entrapment of individual turtles. Consistent with the Draft Solano HCP, implementation of Mitigation Measures BIO-4a, BIO-4b, and BIO-4c would reduce potential impacts to northwestern pond turtle a less than significant level by requiring pre-construction surveys, monitoring and relocation during construction, and take authorization, if needed.

Mitigation Measure BIO-4a **Northwestern Pond Turtle Surveys.** A qualified biologist shall conduct at least two surveys of the work site no more than 2 weeks prior to the onset of construction activities along all project features. Surveys of aquatic habitats for pond turtles shall be conducted under all the following conditions:

- On sunny days between 9:00 a.m. and 4:00 p.m.
- When air temperatures are a minimum of 55 degrees Fahrenheit.
- When winds are less than 12 miles per hour (3 on the Beaufort scale).

Results of the surveys shall be submitted to the City of Fairfield Planning Division and shall document, at a minimum, the name(s) of the waterbody, the type(s) of waterbody, the project site(s) name, surveyor name(s), date, start and end times, and weather conditions (temperature, wind, and cloud cover) of each survey; the numbers, age class, behaviors, and locations (Latitude/ Longitude or Universal Transverse Mercators) of pond turtles observed; and any invasive species observations. Upland habitat survey forms shall include the above information, plus locations of nests or individuals observed and distance to water.

Mitigation Measure BIO-4b **Northwestern Pond Turtle Avoidance Measures.** The following measures shall be implemented by a qualified biologist (with pond turtle trapping/handling experience and holding a CDFW Scientific Collecting Permit) during construction activities to avoid impacts to western pond turtle:

- The qualified biologist shall have the authority to halt any action that might result in take (harm or harassment) of western pond turtle.
- The qualified biologist shall capture and relocate northwestern pond turtles or their nests out of to secure locations away from work areas. Any injured pond turtles shall be taken to an approved wildlife rescue and rehabilitation facility.

Mitigation Measure BIO-4c **Northwestern Pond Turtle Take Authorization.** The northwestern pond turtle is currently proposed for listing as a threatened species under the Federal Endangered Species Act. Should it be listed prior to project implementation, the City shall consult with United States Fish and Wildlife Service and secure take authorization, if required, and implement all required permit conditions.

With implementation of Mitigation Measures BIO-4a, BIO-4b, and BIO-4c, impacts to northwestern pond turtle would be reduced to **less than significant with mitigation incorporated**.

Swainson's Hawk, Western Burrowing Owl and Other Raptors. Swainson's hawks have been documented nesting in multiple locations within 0.5 mile of the project area. One nest was documented in 2022 within 500 feet of the Fairfield-Vacaville Hannigan Train Station; however, this nest site has subsequently been used by other raptor species. Despite the changes in species occupation, the project site contains potential nesting habitat and suitable foraging habitat for Swainson's hawk, as well as other raptor species. Multiple burrowing owl occurrences are documented within 1 mile of the project site and suitable foraging and nesting habitat is present in the area of the project.

The proposed project would result in a loss of foraging habitat for these species and could result in loss of nesting habitat, depending on which trail alignment is chosen. Construction-related activities could also result in nest loss or abandonment through noise, vibration, or visual disturbance, if these species are nesting in the project area during construction. Consistent with the TSSP EIR and the Draft Solano HCP, implementation of Mitigation Measure BIO-5 (TSSP Mitigation Measure 4.4-2c), which requires preconstruction surveys, establishment of buffers, and compensatory mitigation for loss of foraging habitat, would reduce potential impacts to Swainson's hawk, western burrowing owl and other raptors to a less than significant level.

Mitigation Measure BIO-5 **Avoid Direct Loss of Swainson's Hawk and Other Raptors (TSSP EIR Mitigation Measure 4.4-2c)**. The following measures shall be implemented to avoid, minimize, and mitigate impacts to Swainson's hawk, burrowing owl and other raptors. Effects to burrowing owls may require obtaining an Incidental Take Permit from the CDFW.

1. To avoid, minimize, and mitigate potential impacts on Swainson's hawk and other raptors (not including burrowing owl), the City shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 0.5 mile of the project features and construction yards. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all project phases. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk. If no nests are found, no further mitigation is required.

2. Impacts on nesting Swainson's hawks, burrowing owl, and other raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. No project activity shall commence within the buffer areas until a qualified biologist has determined in coordination with CDFW the young have

fledged, the nest is no longer active, or until that reducing the buffer would not result in nest abandonment. CDFW guidelines recommend implementation of 0.25- or 0.5-mile-wide buffers for Swainson's hawks, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

3. To mitigate impacts on Swainson's hawk, burrowing owl, and other raptor foraging habitat the City shall preserve grassland suitable foraging habitat at a minimum 1:1 ratio. This mitigation can be concurrent with mitigation for California tiger salamander habitat required under Mitigation Measure BIO-3 above provided the valley floor grassland habitat preserved is suitable for both species. Active and suitable nest trees within and adjacent to foraging habitat shall be retained to the maximum extent practicable.

4. If an active burrowing owl nest is found during the non-breeding season (September 1 through January 31), then western burrowing owls occupying burrows that cannot be avoided or adequately protected may be evicted from the area using passive relocation as described in CDFW's Staff Report on Burrowing Owls (1995, or most current) provided suitable alternative burrows are located within 330 feet of the occupied burrows and can be protected during project construction.

5. If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and shall be provided with a 250-foot protective buffer unless a qualified biologist verifies through noninvasive means that either: 1) the birds have not begun egg laying, 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival, or 3) the burrow is no longer active. Once the fledglings are capable of independent survival or the burrow is no longer active, the owls can be evicted consistent with measure 4 above and the burrow can be destroyed.

6. Project applicants shall mitigate for the permanent loss or conversion of suitable burrowing owl foraging habitat at a minimum 1:1 ratio. This mitigation can be concurrent with

mitigation for Swainson's hawk and/or California tiger salamander habitat required under Mitigation Measure BIO-3 above provided the valley floor grassland habitat preserved is suitable for both species. Concurrent.

7. If active burrowing owl nests are found during preconstruction surveys and these nest sites, and may be affected by construction activities, construction activities shall cease immediately, and construction shall not resume until the qualified biologist, in consultation with CDFW and United States Fish and Wildlife Service (USFWS), has determined that construction may continue under modified restrictions or that nesting activity is complete. The City shall mitigate in the loss of nest burrows through preservation of other known nest sites at a ratio of 1:1.

8. All Swainson's hawk, burrowing owl, and other raptor nesting and foraging habitat mitigation lands shall be preserved in perpetuity and incompatible land uses shall be prohibited in habitat conservation areas.

With implementation of Mitigation Measure BIO-5, impacts to Swainson's hawk, western burrowing owl and other raptors would be reduced to **less than significant with mitigation incorporated**.

Other Nesting Birds. The trees and open grasslands on the site provide potential nesting habitat for various native bird species protected under the Migratory Bird Treaty Act and the California Fish and Game Code; most native bird species in California are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. The nesting season in Solano County is generally considered to extend from February 1 through August 31, but some species can begin nesting as early as late December and January.

Active nests (i.e., nests containing viable eggs or young) of native birds could be adversely affected by vegetation clearing and construction activities. Adverse effects to active nests would be considered significant under CEQA. Implementation of Mitigation Measure BIO-6 would reduce potential impacts to nesting birds to a less than significant level by requiring pre-construction nesting bird surveys and establishment of buffers around identified nests.

Mitigation Measure BIO-6 **Nesting Bird Surveys and Avoidance Measures.** Prior to construction activities taking place during the nesting bird season (February 1 through August 31), preconstruction activity surveys for nesting birds shall be conducted by a qualified biologist to ensure disturbance of active nests will be avoided or minimized during project implementation. Surveys shall be conducted no more than 7 days prior to the initiation of construction activities. During this survey, the biologist shall

inspect all trees and other potential nesting habitats (e.g., shrubs, ground, and structures) in the project area plus a surrounding 50-foot buffer for nests. If removal of potential nesting substrate or project grading will take place during more than one nesting season or in different parts of the project area over the course of a single season, then additional pre-activity surveys must be performed within 7 days prior to initiation of work in any specific area. If the preconstruction activity survey does not identify the presence of any active nests on or within 50 feet of the project area, construction activities may proceed.

If nests are known to have eggs or young, or if they cannot be confirmed to be inactive or to lack eggs or young, are found, or adults are demonstrating nesting behavior, a qualified biologist shall establish an appropriate construction-free buffer around each nest. Nest buffers can vary depending the context of the nest location and the bird species therefore, a qualified biologist shall determine a suitable nesting buffer based on these factors. The buffer shall remain in place until the qualified biologist has confirmed that the nest is no longer active.

If a less than a 50-foot-wide nest buffer is determined to be appropriate for a particular nest or nests, a qualified biologist shall monitor the nest(s) before construction to document baseline nesting behavior and monitor the nest during construction to ensure nesting birds are not exhibiting signs of stress and territorial behavior. If signs of stress are observed during the monitoring, construction activities shall cease or the buffer will be increased, as determined by a qualified biologist, to a sufficient distance where the nesting birds are longer exhibiting signs of stress.

To prevent encroachment, the buffer shall be clearly marked for avoidance. The established buffer shall remain in effect until the young have fledged or the nest is no longer active as confirmed by the qualified biologist.

Implementation of Mitigation Measure BIO-6 would reduce potential impacts to nesting birds to **less than significant with mitigation incorporated** by ensuring that direct and indirect effects to nesting birds are avoided during project construction.

With implementation of Mitigation Measures BIO-1 through BIO-6, impacts to special-status plants and wildlife would be reduced to **less than significant with mitigation incorporated.**

b. Would the project 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 Game or U.S. Fish and Wildlife Service? ***(Less Than Significant with Mitigation Incorporated)***

The CDFW tracks the occurrences of natural plant communities that are of limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects. *A Manual of California Vegetation,* Second Edition,[27] lists vegetation alliances with State rarity rankings of S1–S3 as considered "highly imperiled" and project impacts to "high-quality occurrences" of these alliances could be considered significant under CEQA. Most types of wetlands and riparian communities are also considered special-status natural communities due to their limited distribution in California. The majority of the project area is composed primarily of annual grassland habitat with scattered trees and shrubs and planted ornamentals in developed areas. However, the wetlands and vernal pools in the designated Vernal Pool Conservation Area/Open Space as established under the TSSP would be considered a sensitive natural community. No significant woody riparian habitat is present along Union Creek.

Impacts to the vernal pools and swales within the TSSP-designated Vernal Pool Conservation Area/Open Space can be avoided by routing the trail to the south, along the existing developed side of Markeley Lane. If impacts to these sensitive natural communities cannot be avoided, implementation of Mitigation Measures BIO-1a, BIO-1b and BIO-3, described above, would reduce potential impacts to sensitive natural communities to a less than significant level by requiring compensatory mitigation for impacted area. With implementation of Mitigation Measures BIO-1a, BIO-1b and BIO-3, this impact would be **less than significant with mitigation incorporated.**

c. Would the project 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)***

Wetlands are present north of Markeley Lane, primarily in the TSSP-designated Vernal Pool Conservation Area/Open Space. These wetlands may or may not be subject to Clean Water Act Section 404 jurisdiction given recent changes in federal regulatory definitions. However, all wetlands would be subject to state jurisdiction under the Regional Water Quality Control Board (RWQCB). Although the project area encompasses a channelized portion of Union Creek, all ground disturbance associated with implementation of the proposed project would occur outside of the top of bank along the existing maintenance road and within the surrounding uplands comprised of annual grasses. Therefore, Union Creek would not be impacted by the proposed project.

A formal wetland delineation was not within the scope of the biological survey; however, the roadside ditches along Markeley Lane were examined for wetland characteristics (e.g., hydric soils, wetland vegetation, wetland hydrology) during the reconnaissance field surveys for the project. Hydric soils are formed under conditions of saturation, flooding, or ponding for a long enough period during the growing season to develop anaerobic conditions. During the initial assessment, the

[27] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second edition. Sacramento: California Native Plant Society Press.

roadside ditches along Markeley Lane lacked a predominance of wetland vegetation or strong evidence of wetland hydrology or hydric soils. While the preliminary assessment is that these ditches do not meet wetland criteria, a final determination as to the jurisdictional status of these ditches is subject to verification by the United States Army Corps of Engineers (USACE) and RWQCB. If the roadside ditches are determined to be jurisdictional by the USACE and/or the RWQCB, implementation of the proposed project could result in permanent (e.g., direct fill) and temporary impacts to jurisdictional waters. Implementation of Mitigation Measure BIO-7 (TSSP EIR Mitigation Measure 4.4-1a), which requires that the City obtain and comply with appropriate regulatory permits and provide compensatory mitigation, as needed, would reduce potential impacts to jurisdictional waters to a less than significant level.

Mitigation Measure BIO-7 **Secure Clean Water Act Section 404 Permit and other Necessary State Permit and Implement All Permit Conditions; Ensure No Net Loss of Functions and Values of Wetlands, Other Waters of the United States, and Waters of the State (TSSP Mitigation Measure 4.4-1a).**

1. The City shall complete a formal wetland delineation which shall be submitted to the United States Army Corps of Engineers and Regional Water Quality Control Board for review and verification. If it is determined that wetlands would not be affected by the project, no further mitigation measures are required.

2. If waters of the United States or waters of the state may be affected by the project, the City shall obtain all necessary permits under Sections 401 and 404 of the CWA or the State's Porter-Cologne Act.

3. The City shall require design the project to avoid fill of wetlands and other waters of the United States to the maximum extent practicable.

4. If wetlands or other waters cannot be avoided, the City shall replace, restore, or enhance, in accordance with US Army Corps of Engineers and the Regional Water Quality Control Board policies and as specified in applicable permits. Minimum mitigation requirements shall follow ratios specified in Mitigation BIO-1b above or as determined during the Section 401 and/or Section 404 permitting processes.

With implementation of **Mitigation Measure BIO-7** potential construction-related impacts, both temporary and permanent in nature, would be **less than significant with mitigation incorporated.**

d. Would the project 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 with Mitigation Incorporated)***

Wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. Wildlife movement includes migration (i.e., usually annual round-trip), inter-population movement (i.e., long-term genetic flow), and small travel pathways (i.e., daily movement corridors within an animal's territory). These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another in order to fulfill foraging, breeding, or territorial needs. In Solano County, landscape elements that facilitate local and/or regional wildlife movement include stream drainages, canyons, ridges, or other prominent natural or human-made landscape features.

The project site north of Markeley Lane is composed of annual grasslands with scattered trees and shrubs; the site is surrounded by open grasslands to the north and east with residential development to the west and south. This grassland habitat is within dispersal distance from potential breeding ponds in the vicinity of the project, and individual California tiger salamander may move through the project site during seasonal movements between breeding pools and contiguous grasslands. The developed areas south of Markeley Lane also contain suitable upland habitat for California tiger salamander.

Construction of the project between the Fairfield-Vacaville Hannigan Train Station and Markeley Lane could result in temporary ground disturbance and placement of linear hard surface, resulting in temporary impacts from removal of cover that could disrupt California tiger salamander and other species' seasonal movements. These temporary impacts can be minimized by implementing Mitigation Measure BIO-8, below, which requires seasonal restrictions for construction activities in this area. The trail, absent the planned development north of Markeley Lane, is unlikely to cause significant long-term impacts to California tiger salamander or other species migration and inter-population movement as its anticipated use is not expected to create a barrier to movement.

Mitigation Measure BIO-8 **Seasonal Construction Restrictions**. If the northern project segment between the Fairfield-Vacaville Hannigan Train Station and Markeley Road is constructed prior to planned residential development, ground disturbing activities (clearing, grading, etc.) shall be limited to the period between June 15 and October 31. If the proposed project is implemented concurrent with or after the planned residential development, this measure is not applicable.

Wildlife species that currently move through or around the developed areas along the proposed trail alignment would likely continue to move through or around the area during and after project construction because most of the species that are likely to occur in the area are generalists that are adept at moving through urban landscapes. Therefore, impacts to wildlife movement corridors would be **less than significant with mitigation incorporated.**

Nursery sites are defined as areas where fish and wildlife concentrate for hatching and/or raising young, such as nesting rookeries for birds, spawning areas for native fish, fawning areas for deer, monarch overwintering sites, and maternal roosts for bats. Other than known or potential California tiger salamander breeding ponds north and east of the project site, no other nursery sites were identified or have been documented in the project area. As described in Section 4.4.a, no California tiger salamander breeding habitat would be affected by the project. As such, the proposed project would have **no impact** on any wildlife nursery sites.

e. Would the project 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's TSSP and General Plan contain several measures that promote protection of rare, threatened, and endangered species; sensitive habitats; and participation with the Solano Habitat Conservation Plan. However, as identified in the TSSP EIR, project construction could result in the spread of noxious weed species that are present in the project area including barbed goat grass (*Aegilops triuncialis*), black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), purple starthistle (*Centaurea calcitrapa*), yellow starthistle (*Centaurea solstitialis*), artichoke thistle (*Cynara cardunculus*), perennial pepperweed (*Lepidium latifolium*), and medusa head (*Taeniatherum caput-medusae*). Spread of these invasive species would conflict with policies to protect biological resources. Implementation of Mitigation Measure BIO-9 (TSSP EIR Mitigation Measure 4.4-6a), which requires that the City implement measures during construction to prevent the spread of noxious weed species, would reduce potential impacts associated with the spread of noxious weed species to less than significant.

Mitigation Measure BIO-9 **Identify and map noxious weed infestations, avoid infested areas to the extent feasible; Clean Equipment so that it is free of soil, seeds, vegetative matter or other debris prior to being moved onto the project (TSSP Mitigation Measure 4.4-6a).**

1. The following measures shall be implemented to reduce the risk of spreading noxious weeds:

    a. Prior to construction commencement, the City shall hire a qualified botanist to identify and map all noxious weed infestations within project construction sites. The botanist shall contact the Solano County Agricultural Commissioner and review data from the California Invasive Pest Plant Council to obtain a current list of noxious weeds of concern.

    b. Areas infested by noxious weeds shall be fenced and avoided during construction if feasible. If these areas are to be developed and cannot be avoided, noxious weeds shall be removed at the onset of construction and disposed of properly. Proper disposal methods depend on the species, removal method, and the timing of removal. Appropriate

methods of disposal shall be determined by a qualified botanist or land manager experienced in weed eradication methods.

c. All equipment shall be cleaned so that it is free of soil, seeds, vegetative matter or other debris prior to being moved onto the project and from infested sites to un-infested sites and prior to being transported into or out of the project area.

With implementation of Mitigation Measure BIO-9, impacts related to noxious weed species would be less than significant with mitigation incorporated.

In addition, Section 25.36, *Tree Conservation*, of the City's Municipal Code protects significant trees from unnecessary destruction or removal, encourages the replacement of trees lost to disease, natural hazards, or human intervention. "Protected trees" include:

- All trees on public property.
- Trees planted or preserved in private property or within the public right-of-way, which were required as a condition of approval or shown on a landscape drawing/plan for a project approved by the City.
- The following species of trees located on undeveloped private properties, which exceed 6 inches in caliper or diameter at breast height[28]: native oaks (*Quercus* sp.), bay laurel (*Umbelluraria californica*), madrone (*Arbutus menziesi*), and buckeye (*Aesculus californica*).
- Trees or groups of trees having one or more of the following characteristics: 1) demonstrated habitat value; 2) historical or cultural value, as documented by published sources; 3) important aesthetic value; 4) uniqueness or rarity; or 5) unusual size or age.

The City's Tree Conservation ordinance prohibits removal, excessive pruning, topping, and disfigurement of any protected trees, or performance of any act, which results in the premature death or decline of a protected tree.

One to two trees along Air Base Parkway may need to be removed to accommodate the proposed trail alignment. No other trees would be removed to accommodate the proposed project. Consistent with the City's Tree Conservation Ordinance, trees to be removed public property by the Public Works Department of City Contractors must be replaced by the same species or another species/ type, as approved by the Director of Community Development, in cooperation with the Public Works Department. New trees would be planted as part of the proposed project, consistent with the replacement requirement identified in the City's Municipal Code.

[28] Breast height is measured at a point 4.5 feet above the existing ground level of the tree.

Therefore, with implementation of Mitigation Measure BIO-9, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be **less than significant with mitigation incorporated.**

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ***(No Impact)***

The project site is within the boundaries of the administrative draft Solano HCP. The HCP has not been adopted at this time. In general, the TSSP provides consistency with the conservation strategy of the Solano HCP. In addition, all of the mitigation measures provided in this section are consistent with the mitigation requirements presented in the conservation strategy section of the current draft Solano HCP. Therefore, implementation of the proposed project would not reduce the effectiveness of the Solano HCP conservation strategy and would not interfere with attaining the overall Solano HCP conservation goals and objectives. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **No impact** would occur.

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 formal cemeteries?	☐	☐	☐	☒

The information and analysis in this section is based, in part, on the Cultural Resources Assessment prepared for the project site[29] consisting of background research, a field survey, and an evaluation of an approximately 1,650-foot segment of channelized Union Creek north of Travis Air Force Base. The results of the study are summarized below. Please see Appendix B for California Department of Parks and Recreation Series 523 form records for a presentation of the historical and land use development context of this segment of channelized Union Creek in the project area.

Records Search Results. On January 29, 2025, the staff of the Northwest Information Center (NWIC) conducted a record search (NWIC File No. 24-1074) of the project site and a 0.5-mile radius. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resource records and reports for Solano County. As part of the background research, local and State inventories for cultural resources were also reviewed, and the Native American Heritage Commission (NAHC) was contacted.

The NWIC records search indicate there have been 22 previous studies within 0.5 mile of the project site and 10 that included the project area. Two resources were identified within the project site, P-48-002050 and -002051. Both of these resources are single family farmsteads that were found not eligible for the California Register of Historical Resources (California Register) due to a lack of significance.

The NWIC records search identified 10 previously recorded cultural resources within 0.5 mile of the project site. Two marginal prehistoric period resources (48-000148 and -000149, both vernal pools) are within several hundred feet of the project; three additional historic period archaeological resources (48-000735, remnants of a farmstead with structural debris, water management/ conveyance features and refuse deposit; 48-002053, water conveyance feature; and 48-002058, an aircraft crash site) along with one built environment resource (48-000199, a functioning railroad) are documented within 0.5 mile.

Historic Period Aerial Photograph Review. Historical maps and aerial photographs indicate that, with the exception of a road that corresponds with modern day Air Base Parkway, the project area

[29] LSA. 2025. *Cultural Resources Assessment for the Safe Routes to School and Transit Project, Fairfield, California*. May.

remained minimally or largely undeveloped until the mid-20th century and then experienced rapid growth as a result of the expansion of Travis Air Force Base as well as the suburbanization of Fairfield and Solano, a common land use pattern in central Solano County and rural areas statewide with developing military infrastructure during the 20th century.

Archaeological Field Survey. On February 2, 2024, a pedestrian survey of the project site was conducted that focused on visible/accessible areas. The portions of the project area obscured by development and pavement could not be included in the survey. Visibility in the balance of the project was generally poor due to obstruction by vegetation and landscaping, limited to foot paths near Nature Lake, and patchy exposures and rodent aprons in landscaped beds. The picnic area south of the Heather Farm Community Center was an exception with fully exposed soil; however, the ground was disturbed and not an original surface. Due to these visibility constraints, the survey was conducted using intuitive transects to access the localized soil exposures.

A fragment of ecofactual shell was noted in a rodent apron on the grassy hill, east of the community garden fence (in the northwest corner of the project site). Although the hill appeared to be a natural landform (with multiple rodent aprons that allowed limited inspection of the subsurface soil), it may have been contoured as part of the park development.

No archaeological resources were noted during the survey. It is likely that little of the original ground surface remains, as much of the topography has clearly been contoured/graded for drainage and recreation purposes. Buried utilities (including stormwater, irrigation, and electrical) are present and represent an additional level of disturbance to an unknown depth beyond what was sustained from park development.

Architectural Field Survey. On April 19, 2025, a pedestrian field review of the project site was conducted by an architectural historian. The survey documented the condition and setting of the approximately 1,650-foot segment of the proposed trail would lie atop the western levee of the segment of channelized Union Creek, which is more than 50 years old. The purpose of the field survey was to photograph the segment, its notable features (if any), and describe any alterations not reflected in background research.

From north to south, the proposed trail alignment would lie within the right-of-way of Markeley Road and De Ronde Road with education institutional properties, shift to an approximately 1,650-foot segment atop the western levee of channelized Union Creek to Air Base Parkway, and then shift to the right-of-way of Air Base Parkway and to the east on urbanized land near the southern end at Parker Road. The proposed segment that would lie atop has a total width of approximately 170 feet bisected by an approximately 35-foot wide channel that carries water. The levee banks are wide, flat, and largely covered in vegetation that appears regularly mowed. From north to south, the segment is flanked by institutional properties on the west such as Vanden High School, Travis Community School, Travis Unified School District offices, and Golden West Middle School along De Rande Road as well as one privately-owned parcel covering 9.7-acres at 198 Dobe Lane, and the Solano County Mosquito Abatement District campus at 2950 Industrial Court and on the eastern side by a currently non-operating golf course within the boundary of Travis Air Force Base. All of these properties are adjacent to the proposed trail alignment.

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

CEQA defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources;
- Listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k);
- Identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC; or
- Determined to be a historical resource by a project's lead agency (PRC Section 21084.1 and State CEQA Guidelines Section 15064.5[a]).

The California Register defines a "historical resource" as a resource that meets one or more of the following criteria: (1) associated with events that have made a significant contribution to the broad patterns or local or regional history of the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation. Under CEQA, historical resources can include precontact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts.

According to the *State CEQA Guidelines*, a proposed project may have a significant effect on the environment if it would create "an effect that may cause a substantial adverse change in the significance of a historical resource." Specifically, substantial adverse changes include "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (*State CEQA Guidelines* §15064.5(b)(1)).

As discussed above, the Cultural Resources Assessment included a historical evaluation of an approximately 1,650-foot segment of channelized Union Creek north of Travis Air Force Base. According to the historical evaluation, the approximately 1,650-foot segment of channelized Union Creek is associated with the development of Travis Air Force Base and Solano County's growth in the mid-20th century. However, the association of this segment of water conveyance infrastructure with this pattern of events does not appear of high, relative importance with similar other examples of water conveyance infrastructure as regards the history of Travis Air Force Base, Solano County, California or the nation. For these reasons, this segment of channelized Union Creek does not qualify as a "historical resource" for the purposes of CEQA (as defined by PRC Section 21084.1).[30] As this

[30] LSA. 2025. *Cultural Resources Assessment for the Safe Routes to School and Transit Project, Fairfield, California*. May.

built environment resource was evaluated for significance as a historical resource and found not eligible for inclusion on the California Register, implementation of the project would not adversely cause a substantial adverse change in the significance of a historical resource.

Based on the lack of previously recorded archaeological resources within the project site, the low potential for substantive archaeological resources in the vicinity, and the negative survey results, the project site was determined to have low potential for *in situ*, buried, pre-contact archaeological resources. Nevertheless, should archaeological deposits be encountered during project ground disturbance, a substantial adverse change in the significance of a historical resource could occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (*State CEQA Guidelines* Section 15064.5(b)(1)). Implementation of Mitigation Measure CUL-1 would reduce potential impacts to a less than significant level by requiring workers' environmental awareness program training prior to any ground disturbing activities and work stoppage in the event of an archaeological discovery.

Mitigation Measure CUL-1a **Workers' Environmental Awareness Program (WEAP) Training.** All personnel involved in project-related ground-disturbing activities (e.g., on-site construction managers, equipment operators and other crew) shall be required to participate in a workers' environmental awareness program (WEAP) training prior to any such activities (including clear and grub and building foundation removal). The training will include relevant information regarding cultural resources including applicable regulations and consequences of violating State laws and regulations and will also describe communication and procedural protocols (including avoidance) in the event cultural resources are encountered. The training shall be presented by a professional archaeologist (RPA or RA) and will emphasize the requirement for confidentiality and culturally appropriate treatment of all archaeological discoveries.

Mitigation Measure CUL-1b **Unanticipated Archaeological Deposits.** Should an archaeological deposit be encountered during project subsurface construction activities, all ground-disturbing activities within 50 feet shall be redirected, and the Construction Contractor shall contact a qualified Project Archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology to assess the situation, notify the United States Army Corps of Engineers (USACE) and the City of Walnut Creek, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If the Project Archaeologist finds the deposit to be potentially significant (i.e., potentially eligible for listing in the California Register of Historical Resources), the City of Walnut Creek shall be responsible for funding and implementing appropriate mitigation measures. Mitigation measures may include recording the archaeological deposit, data recovery and analysis, and public

outreach regarding the scientific and cultural importance of the discovery. Upon completion of the selected mitigations, the Project Archaeologist shall prepare a report documenting methods, findings, and recommendations; shall submit the report to the USACE and City for review; and shall submit the final report to the Northwest Information Center at Sonoma State University. Recovered archaeological materials shall be submitted to an appropriate local curation facility and may be used for future research and public interpretive displays, as appropriate.

With implementation of Mitigation Measures CUL-1, potential impacts to historical resources would be reduced to **less than significant with mitigation incorporated.**

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

According to the *State CEQA Guidelines*, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (California PRC Section 21083.2). As discussed above, no archaeological resources were identified within the project site by either the record search or survey. Archaeological deposits identified during project construction would be treated by the City and project applicant—in consultation with a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology—in accordance with Mitigation Measure CUL-1. With implementation of Mitigation Measure CUL-1, impacts to archaeological resources would be **less than significant with mitigation incorporated**.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

Based on previous archaeological investigation and analysis, there is a low potential for the disturbance of archaeological human remains. However, if human remains are encountered at the project site, State Health and Safety Code Section 7050.5 and *State CEQA Guidelines* Section 15064.5(e)(1) state that no further disturbance shall occur to the area of the find until the County Coroner has made a determination of origin and disposition of the remains pursuant to PRC Section 5097.98, as required by Mitigation Measure CUL-2.

Mitigation Measure CUL-2 **Unanticipated Human Remains.** In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the

landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

With implementation of Mitigation Measures CUL-2, potential impacts to human remains would be reduced to **less than significant with mitigation incorporated.**

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a 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?	☐	☐	☒	☐

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

The proposed project would result in a small increase in the demand for electricity and gasoline. The discussion and analysis provided below is based on data included in the California Emissions Estimator Model (CalEEMod) output, which is included in Appendix A.

Construction-Period Energy Use. The anticipated construction schedule assumes that construction of the proposed project would begin in July 2027, and would continue over 12 months, ending in 2028. Project construction would involve grubbing and land clearing, grading and excavation, drainage, utility, sub-grade, and paving activities.

Construction of the proposed project would require energy for the manufacture and transportation of construction materials, preparation of the site for grading activities, and construction of the proposed park improvements. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. In addition, construction activities are not anticipated to result in an inefficient use of energy, as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be **less than significant.**

Operational Energy Use. Operational energy usage is typically associated with natural gas use, electricity consumption, and fuel used for vehicle trips. The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and the Travis Air Force Base. The proposed project would not include the construction of new buildings. As such, the proposed project would not include natural gas consumption. Energy use consumed by the proposed project would include electricity consumption associated with lighting. Lighting is proposed along trail segments to promote security and safety for trail users, which would tie into existing electric utilities. It is not anticipated that the proposed project would generate substantial additional electricity demand such that new facilities or expansion of facilities would be required. Therefore, electricity consumption associated with lighting would be minimal. Furthermore, as described in in Section 4.17, Transportation, the proposed

project is not anticipated to generate any additional vehicle trips to and from the project site. In addition, the proposed project would connect to the Fairfield-Vacaville Hannigan Train Station, which is considered high-quality transit. Therefore, due to the minimal increase in electricity and fuel demand, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Construction and operation period impacts related to consumption of energy resources would be **less than significant**.

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

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The most recently CEC adopted energy report is the 2023 Integrated Energy Policy Report.[31] The 2023 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2023 Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage in the project area during construction and operation would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's 2023 Integrated Energy Policy Report. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and this impact would be **less than significant**.

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[31] California Energy Commission. 2023. *2023 Integrated Energy Policy Report*. Website: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report (accessed October 24, 2025).

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?	☐	☒	☐	☐

a. Would the project 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. ***(No Impact)***

Fault rupture occurs when the ground's surface breaks due to fault movement during an earthquake. The location of surface fault rupture generally can be assumed to be along an active or potentially active major fault trace. The State of California enacted the Alquist-Priolo Fault Zoning Act in 1972, requiring the State Geologist to delineate Earthquake Fault Zones along known active faults that have high potential for fault rupture. Active faults are defined as a fault that has surface

displacement within the last 11,000 years.[32] State regulations prohibit habitable structures from being sited within 50 feet of an active fault.

The project site is in the North Bay subregion of the San Francisco Bay Area, a seismically active region subject to strong seismic ground shaking activity resulting from earthquakes on nearby faults. The closest active faults and designated Earthquake Fault Zones to the project site are the Cordelia fault, approximately 9.3 miles west of the project site, and the Green Valley fault, approximately 10.8 miles west of the project site.[33] No active earthquake faults are known to cross the subject property. Therefore, surface fault rupture is considered to have **no impact** to site use or improvements.

ii. Strong seismic ground shaking? ***(Less Than Significant with Mitigation Incorporated)***

The project site, similar to the entire San Francisco Bay Area, is within a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the Earth's surface resulting from an earthquake and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The nearest active faults that are capable of producing significant ground shaking at the project site include the Cordelia fault and the Green Valley fault.[34]

An earthquake of moderate to high magnitude within the San Francisco Bay Area could generate significant ground shaking at the project site. The most significant adverse impact associated with strong seismic ground shaking is potential damage to structures and subsequent injury to people inside or nearby those structures. The proposed project includes construction of Class I, Class III and Class IV trails and pedestrian paths connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. No habitable structures are proposed as part of the project. In addition, the proposed project would be required to prepare a design-level geotechnical exploration with geotechnical recommendations for proposed grading and foundation and retaining wall design to ensure that proposed improvements are designed in accordance with California Building Code (CBC) requirements and to mitigate potential geotechnical and geological hazards.

Mitigation Measure GEO-1 **Design-Level Geotechnical Exploration**. A Design-Level Geotechnical Exploration shall be performed for the proposed trail improvements. Geotechnical recommendations shall be prepared for the project under the direction of a California Registered Geotechnical Engineer, or Registered Civil Engineer experienced in geotechnical engineering. The geotechnical recommendations shall be based on the final project design plans and shall establish the seismic design parameters, as determined by the engineer in accordance with requirements of the California Building Code, for improvements to the project site. The geotechnical exploration shall include detailed

[32] California Department of Conservation. 2021. *California Earthquake Hazards Zone Application ("EQ Zapp")*. Website: https://maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed June 6, 2024).
[33] Ibid.
[34] Ibid.

evaluations of geotechnical concerns in the project area including slope stability, expansive potential, and liquefaction potential. The geotechnical exploration shall provide data for the preparation of design-level recommendations regarding grading, foundation, and retaining wall design for the proposed development and provide recommendations regarding techniques and procedures to be implemented during construction to mitigate potential geotechnical and geological hazards.

Implementation of Mitigation Measure GEO-1 would further reduce the level of the potential impact through the identification of specific recommendations related to slope stability, expansive soils, liquefaction potential, and implementation of supplemental recommendations, if needed. Therefore, with implementation of Mitigation Measure GEO-1, implementation of the proposed project would not cause a substantial adverse effect, including the risk of loss, injury, or death involving strong seismic ground shaking. Impact associated with strong seismic ground shaking would be **less than significant with mitigation incorporated**.

iii. Seismic-related ground failure, including liquefaction? ***(Less Than Significant Impact)***

Liquefaction occurs when loose, fine-grained sediment temporarily transforms to a fluid-like state similar to quicksand. This phenomenon occurs due to strong seismic activity and lessens the soil's ability to support a structural foundation. The primary factors affecting the possibility of liquefaction in soil are (1) intensity and duration of earthquake shaking, (2) soil type and relative density (3) overburden pressures, and (4) depth to groundwater. Soil most susceptible to liquefaction is clean, loose, fine-grained sands and non-plastic silts that are saturated.

The California Geological Survey (CGS) has mapped Seismic Hazard Zones that delineate areas susceptible to liquefaction and/or landslides that require proposed new developments in these areas to conduct additional investigation to determine the extent and magnitude of potential ground failure. According to mapping by CGS,[35] the proposed trail alignment is not located in a mapped liquefaction hazards area. Additionally, mapping performed by the Metropolitan Transportation Commission (MTC)/Association of Bay Area Governments (ABAG) indicates that the proposed trail alignment is in an area of low liquefaction susceptibility.[36] Therefore, impacts associated with liquefaction would be **less than significant**.

iv. Landslides? ***(Less Than Significant Impact)***

Most of the trail alignment would take place on flat terrain that would not be susceptible to landslides. Seismically induced landslides and other slope failures are common during or soon after an earthquake in areas with significant ground slopes. Unstable slopes can be formed by natural

35 California Geological Survey. 2019. *California Earthquake Hazards Zone Application*. Website: maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed June 6, 2024).

36 Metropolitan Transportation Commission/Association of Bay Area Governments. 2018a. Earthquake Liquefaction Susceptibility Map. Website: mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, (accessed June 6, 2024).

processes such as erosion, water saturation, and destroyed vegetation due to wildfire and fault line displacements. Landslides may also induce flooding by damming creeks and streams with debris. Mapping performed by MTC/ABAG indicates that the proposed trail alignment is in an area of low liquefaction susceptibility.[37] Therefore, impacts associated with landslides would be **less than significant**.

b. Would the project result in substantial soil erosion or the loss of topsoil? ***(Less Than Significant Impact)***

Exposed soils could be subject to erosion during construction of the proposed project. Exposed soils could be entrained in stormwater runoff and transported off the project site. The potential for soil erosion exists during the period of earthwork activities and between the time when earthwork is completed, and new pavement and vegetation is established. As specified in Section 4.10, Hydrology and Water Quality, a Storm Water Pollution Prevention Plan (SWPPP) would be required for construction of the proposed project. Although designed primarily to protect storm water quality, the SWPPP would incorporate best management practices (BMPs) to minimize erosion. Preparation and implementation of a SWPPP, required by existing regulations, would reduce any potential soil erosion impacts to a **less than significant** level.

c. Would the project 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 with Mitigation Incorporated)***

The proposed project would be designed and constructed in accordance with standard engineering practices and the CBC. Areas along the proposed trail alignment are not anticipated to become unstable as a result of the proposed project, or potentially result in on- or off-site landslides, liquefaction, or lateral spreading. Further, implementation of Mitigation Measure GEO-1, which would require preparation of a design-level geotechnical evaluation and implementation of proposed geotechnical recommendations, would ensure that the proposed project would not result in a geologic hazard from landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts would be **less than significant with mitigation incorporated**.

d. Would the project 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 with Mitigation Incorporated)***

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percentage of change in the soil

[37] Metropolitan Transportation Commission/Association of Bay Area Governments. 2018b. Landslide Hazard Map. Website: mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, (accessed June 6, 2024).

volume. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction.

Soils underlying the project site are composed of Antioch-San Ysidro complex, 0 to 2 percent slopes (AoA), Antioch-San Ysidro complex, thick surface, 0 to 2 percent slopes (AsA), Dibble-Los Osos clay loams, 2 to 9 percent slopes (DlC) and San Ysidro sandy loam, 2 to 5 percent slopes (SeB), according to the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey.[38] These soils have a low to high shrink-swell potential depending on depth from surface.[39] As discussed above, the proposed project would be designed and constructed in accordance with standard engineering practices and the CBC, and would implement Mitigation Measure GEO-1, requiring preparation of a design-level geotechnical evaluation and implementation of proposed geotechnical recommendations. Implementation of Mitigation Measure GEO-1 would reduce potential impacts associated with expansive soils. Therefore, impacts would be **less than significant with mitigation incorporated**.

e. Would the project 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 proposed project is a multi-use trail alignment and would not generate wastewater. No restrooms would be constructed as part of this project. No septic tanks or alternative wastewater disposal systems would be required for the proposed project. Therefore, **no impact** related to this topic would occur as a result of implementation of the proposed project.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***(Less Than Significant with Mitigation Incorporated)***

The proposed project would not require deep excavation or trenching that would likely encounter paleontological resources. However, in the event that fossil remains are encountered, impacts to paleontological resources could occur. Therefore, the proposed project would be required to implement Mitigation Measure GEO-2, requiring work stoppage if paleontological resources are encountered during grading activities.

Mitigation Measure GEO-2 **Previously Undiscovered Paleontological Resources.** If paleontological resources are encountered during grading activities for each individual trail segment, all work within 25 feet of the discovery shall be redirected until a qualified paleontologist has assessed the discoveries and made recommendations. Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks. If the

38 United States Department of Agriculture. Natural Resources Conservation Service. n.d. Web Soil Survey. Website: websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed March 21, 2025).

39 United States Department of Agriculture Soil Conservation Service. 1977. *Soil Survey of Solano County*. Website: https://ia903201.us.archive.org/35/items/usda-solanoCA1977/solanoCA1977.pdf (accessed March 21, 2025).

paleontological resources are found to be significant, adverse effects to such resources shall be avoided by project activities to the extent feasible. If project activities cannot avoid the resources, the adverse effects shall be mitigated. In accordance with *State CEQA Guidelines* Section 15126.4(b)(3), mitigation may include data recovery and analysis, preparation of a final report, and the formal transmission or delivery of any fossil material recovered to a paleontological repository, such as the University of California Museum of Paleontology (UCMP). Upon completion, the final report shall document methods and findings of the mitigation and be submitted to the City of Fairfield, as applicable, and to a suitable paleontological repository.

Implementation of Mitigation Measure GEO-2 would reduce the level of the potential impact through the identification of paleontological resources during construction; the evaluation of unanticipated discoveries; and the recovery of significant paleontological data from those resources that warrant such investigation. This process would recover scientifically consequential information from at-risk resources to offset their potential loss. Therefore, with implementation of Mitigation Measure GEO-2, impacts on paleontological resources would be **less than significant with mitigation incorporated**.

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?	☐	☐	☒	☐

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. Although human-made GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6, are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

In April 2022, the Air District adopted the Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans[40] document that identifies applicable GHG significance thresholds. The Air District recommends these thresholds of significance for use in determining whether a proposed project would have a significant impact related to climate change. These thresholds evaluate a project based on its effect on California's efforts to meet long-term climate goals. Applying this approach, the Air District identifies and provides supporting documentation outlining the requirements that new land use development projects must comply with to achieve California's long-term climate goal of carbon neutrality by 2045. Based on this research, the Air District has determined that new land use development projects must incorporate specified design elements to contribute the "fair share" towards implementation of the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the identified design elements, then it would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change. The document concludes that if a project does not incorporate these design elements, then it should be found to result in a significant climate impact because it would hinder California's efforts to address climate change.

According to the Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, a project would have a less than significant impact related to GHG emissions if it would:

Include, at a minimum, the following project design elements:

1. Buildings

    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

    b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation

    a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*:

[40] Bay Area Air District. 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April.

1. Residential projects: 15 percent below the existing VMT per capita
2. Office projects: 15 percent below the existing VMT per employee
3. Retail projects: no net increase in existing VMT

b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Or be consistent with a local GHG reduction strategy that meets the criteria under *State CEQA Guidelines* Section 15183.5(b).

In December 2024, the City of Fairfield adopted and certified the City's Climate Action Plan (CAP)[41]. The City's CAP meets the Air District requirements for a Qualified GHG Reduction Strategy and is designed to streamline environmental review of future development projects in the City consistent with *State CEQA Guidelines* Section 15183.5(b) and the Air District CEQA Air Quality Guidelines. The City's CAP identifies emission reduction goals to reduce GHG emissions in Fairfield, consistent with State goals and targets codified in Assembly Bill (AB) 32 and Senate Bill (SB) 32 for 2030 and 2050. Therefore, this section evaluates the project's consistency with the City's CAP.

Construction Greenhouse Gas Emissions. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The Air District does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that the emissions associated with construction of the proposed project would be approximately 648.6 metric tons (MT) of CO_2e. Construction GHG emissions were amortized over the life of the project (assumed to be 30 years) and added to the operational emissions. When annualized over the life of the project, amortized construction emissions would be approximately 21.6 MT CO_2e per year.

Operational Greenhouse Gas Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., vehicle and truck trips), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle trips to and from the project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the project. Waste source

41 City of Fairfield. 2024. Climate Action Plan.

emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. As described in Section 4.3, Air Quality, the proposed project would not include the construction of any new buildings, requiring any new or relocated utility lines, such as natural gas, water, or sewer lines. In addition, as detailed in Section 4.17, Transportation, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site. As such, since the project would not result in a significant increase in the generation of vehicle trips or vehicle miles traveled that would increase GHG emissions. The project would not result in a substantial source of mobile, energy, water, waste, or area source emissions.

Furthermore, as described above, the City's CAP[42] meets the Air District requirements for a Qualified GHG Reduction Strategy and is designed to streamline environmental review of future development projects in Fairfield consistent with *State CEQA Guidelines* Section 15183.5(b) and the Air District CEQA Air Quality Guidelines. The City's CAP sets forth strategies to achieve GHG emission reductions; therefore, a qualitative analysis of the proposed project's consistency with these policies and strategies is provided. These policies and other strategies include measures in transportation, land use, building energy, water, waste, and green infrastructure. Since the proposed project would not include new buildings, many of the CAP strategies related to land use, building energy, water, and waste would not apply to the proposed project. The following measures are applicable to the proposed project:

- TR-2: Reduce VMT per capita by at least 3% from 2020 levels by 2030 and 8% by 2050
    - TR-2A: Sustainable Land Use and Transportation Policies
    - TR-2D: School Transportation, Carpool, Safe Routes to Schools

The proposed project would entail development that would encourage walking and bicycling. The walking and bikeways would be connected to the surrounding land uses; therefore, the project would support the ability to use alternative modes of transportation and would promote initiatives to reduce vehicle trips and VMT. In addition, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site. The proposed project would also connect to the Fairfield-Vacaville Hannigan Train Station, which is considered high-quality transit. Therefore, the proposed project would be consistent with the applicable GHG reduction strategies from the City's CAP. As such, the proposed project would not generate significant GHG emissions that would have a significant effect on the environment, and this impact would be **less than significant**.

[42] City of Fairfield. 2024. *Climate Action Plan*.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed above, the City's CAP meets the Air District's requirements for a Qualified GHG Reduction Strategy and is designed to streamline environmental review of future development projects in the City consistent with *State CEQA Guidelines* Section 15183.5(b) and the Air District CEQA Air Quality Guidelines. The proposed project involves the construction of a mixture of Class I, Class III, and Class IV trails. Since the proposed project would not include new buildings, many of the CAP strategies related to land use, building energy, water, and waste would not apply to the proposed project. However, the proposed project would be consistent with the applicable strategies related to sustainable transportation and reduction of VMT from the City's CAP. Therefore, the proposed project would be consistent with applicable CAP measures.

In addition, the proposed project was analyzed for consistency with the goals of the 2022 Scoping Plan, including Executive Order (EO) B-30-15, SB 32, AB 197, and AB 1279.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[43] to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016. AB 1279 codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The Air District's Justification Report established guidance on how individual projects would be consistent with California's long-term climate goals and provides substantial evidence in supporting the use of their thresholds for projects throughout California because the thresholds are designed to meet the State's established GHG reduction goals, including the 2022 Scoping Plan goals. If a project is designed and built to incorporate these design elements related to VMT, natural gas, energy, and electric vehicle requirements, then it would contribute its portion of what is necessary to achieve California's long-term climate goals and an agency reviewing the project under CEQA can conclude that the project would be consistent with the State's 2022 Scoping Plan.

[43] California Air Resources Board. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

As described in Section 4.6, Energy, the proposed project would not include the use of natural gas and would not result in a substantial increase in electricity or fuel demand. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy. In addition, as described in Section 4.17, Transportation, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site and would result in a less than significant VMT impact. The proposed project would consist of a mixture of Class I, Class III, and Class IV trails and would not include parking; therefore, the electric vehicle requirements would not apply to the proposed project. In addition, the proposed project would support alternative modes of transportation. These alternatives aim to reduce reliance on single-occupancy vehicles and promote the use of sustainable modes of transportation such as walking and biking. Therefore, the proposed project would be aligned with strategies outlined in the 2022 Scoping plan for reducing VMT and GHG emissions related to transportation and motor vehicles. Based on this analysis, the proposed project would be consistent with the Air District's project design elements related to natural gas, energy, VMT, and electric vehicles. Therefore, the proposed project would contribute its "fair share" of emission reductions to support long-term State goals of GHG emission reductions and carbon neutrality, and would therefore be found to be consistent with regional and State goals and applicable plans for GHG emissions reductions.

Therefore, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in EO B-30-15, SB 32, and AB 1279 and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant**.

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 proposed 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 2 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?	☐	☐	☒	☐

a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* ***(Less Than Significant Impact)***

Hazardous substances include chemicals regulated under both the United States Department of Transportation[44] and the United States Environmental Protection Agency "Hazardous Materials"[45] regulations. Hazardous waste requires specific handling and disposal procedures because of potential damage to public health and the environment.

Construction and operation of the proposed project would not involve the routine transport, use or disposal of hazardous materials, although hazardous materials would be involved on a temporary basis during construction of the proposed trail. During construction, hazardous materials, which could include lubricants, solvents, paint, and fuels, would be used for equipment operation and

[44] United States Department of Transportation. 2017. *Hazardous Materials Regulations*. Website: www.phmsa.dot.gov/standards-rulemaking/hazmat/hazardous-materials-regulations (accessed June 6, 2024).

[45] United States Environmental Protection Agency. 2020. *Hazardous Waste Regulations*. Website: www.epa.gov/osw/lawsregs/regs-haz.htm (accessed February 3, 2021).

possibly maintenance. However, these materials would not be used in sufficient quantities to pose a threat to human or environmental health. Further, any activities involving hazardous materials and hazardous waste would be conducted in accordance with health and safety standards mandated by the Occupational Safety and Health Administration and other federal, State, and local regulations, thereby reducing potential hazards to workers, the public and the environment from the use, transport, and disposal of those materials and wastes.

Operation of the proposed project (i.e., use of the proposed trail by cyclists and pedestrians) would not involve routine transport, use, or disposal of hazardous materials. Therefore, impacts related to this topic would be **less than significant**.

b. Would the project 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)***

There are two types of hazardous material releases that could occur with implementation of the proposed project, including the accidental release of hazardous material that is routinely used during construction activities and the potential for construction activities to encounter contaminated soil or groundwater at the site. Construction at the project site would require the limited use and transport of hazardous materials, including fuels, oils, and other chemicals used during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and environment.

As discussed in Section 4.10, Hydrology and Water Quality, construction activities at the project site would require implementation of a SWPPP. The SWPPP would incorporate current BMPs for construction, including site housekeeping practices, hazardous material storage, inspections, maintenance, worker training in pollution prevention measures, and containment of releases to prevent runoff via stormwater. Although designed to protect stormwater quality, implementation of the SWPPP would also reduce the potential impacts of hazardous materials releases during construction.

In addition, as discussed in Section 4.9.d, below, the project site is not located on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and contaminated soil or groundwater is not anticipated to be encountered during construction activities. Therefore, impacts related to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be **less than significant**.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***(Less Than Significant Impact)***

The proposed trail alignment would be close to three schools, including Center Elementary School, Golden West Middle Schools and Vanden High School. The proposed project would not routinely emit hazardous emissions, and handling of hazardous or acutely hazardous materials, substances, or waste on the project site (if any) would be temporary and cease once construction is complete. In addition, as discussed above, implementation of the proposed project would not result in the

release of contaminated soil or groundwater. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and impacts would be **less than significant**.

d. Would the project 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? ***(Less Than Significant Impact)***

The project site and a 1-mile radius encompassing the project site were evaluated via the State Water Resources Control Board GeoTracker database,[46] the Department of Toxic Substances Control's EnviroStor database,[47] and the Hazardous Waste and Substances Sites (Cortese) List [48] for the purposes of identifying recognized environmental conditions or historical recognized environmental conditions. The project site is not listed on any list of hazardous material sites compiled pursuant to Government Code Section 65962.5. A total of 15 properties with recognized environmental conditions or historical recognized environmental conditions were identified within 1 mile of the project site, as detailed in Table 4.9.A, below.

Table 4.9.A: Adjacent Hazardous Materials Sites

Site ID	Site Name	Address (all located in the City of Fairfield)	Site Type	Status
T0609500195	Travis Unified School District	2751 De Ronde Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T10000004504	Solano Garbage Company, Republic Services	2901 Industrial Court	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500206	Tosco- Facility #01527	685 Parker Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500302	Budget Rent A Car	600 Parker Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500137	Shell	628 Parker Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500255	Thrifty Rent A Car	538 Parker Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500292	DeMarta Property GM Towing	532 Parker Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
SL0609504340	5053 Noonan Lane	5053 Noonan Lane	Cleanup Program Site	COMPLETED – CASE CLOSED
SL0609584174	Former Owens-Brockway Plastics Products, Inc. Facility	2500 Huntington Drive	Cleanup Program Site	OPEN – Eligible for Closure as of September 26, 2024

46 State Water Resources Control Board. 2022. *Geotracker Database*. Website: https://geotracker.waterboards.ca.gov/ (accessed October 21,2024).

47 California Department of Toxic Substances Control. 2022. *EnviroStor Database*. Website: https://www.envirostor.dtsc.ca.gov/public/ (accessed August 28, 2024).

48 California Environmental Protection Agency (Cal/EPA). 2020. *Cortese List Data Resources*. Website: calepa.ca.gov/sitecleanup/corteselist/ (accessed August 28, 2024).

Table 4.9.A: Adjacent Hazardous Materials Sites

Site ID	Site Name	Address (all located in the City of Fairfield)	Site Type	Status
T0609500111	Owens	2500 Huntington Drive	LUST Cleanup Site	COMPLETED – CASE CLOSED
SL0609538765	Kinder Morgan SFPP, L.P. Peabody Road Release Site	Peabody Road	Cleanup Program Site	COMPLETED – CASE CLOSED
T0609500109	North West Pipe	989 Peabody Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0609500260	Syar Ready-mix Plant	4969 Vanden and Peabody Road	LUST Cleanup Site	COMPLETED – CASE CLOSED
T0607592413	Travis Air Force Base-Travis AFB 771A/B	BG. 771 Aero Club	Military UST Site	COMPLETED – CASE CLOSED
T0607592383	Travis Air Force Base-Travis AFB 771C	BG. 771 Aero Club	Military UST Site	COMPLETED – CASE CLOSED

Source: Geotracker Database (2022), EnviroStor Database (2022), and Cortese List Data Resources (2020).
LUST = Leaking Underground Storage Tank

As shown in Table 4.9.A, all but one of these sites is designated as "Completed—Case Closed." A closed site indicates that regulatory requirements for response actions, such as site assessment and remediation, have either been completed or were not necessary and, therefore, potential migration of residual contaminants in groundwater beneath the project site (if any) does not likely pose a risk to human health and the environment. The one open case, the former Owens-Brockway Plastics Products, Inc. Facility, was determined Eligible for Closure as of September 26, 2024, and does not represent a significant risk to public health or safety (e.g., on-site storage, leaking tanks, or approaching groundwater contamination plume) at the project site. Therefore, no significant hazard to the public or environment would be associated with these listed sites, and this impact would be **less than significant.**

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 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? ***(Less Than Significant Impact)***

Travis Air Force Base, a government-owned military base and airport, is adjacent to the project site. According to the Travis Air Force Base Land Use Compatibility Plan (LUCP)[49], the entire project site is within Zone D of the Airport Influence Area (AIA). The project site is also within the City's Airport Overlay Zoning District, which is coterminous with the AIA. Zone D prohibits development that would result in hazards to flight, such as physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. No other restrictions on development apply within Zone D.

[49] County of Solano. 2024a. *Travis Air Force Base Land Use Compatibility Plan*. August 8. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=34765 (accessed October 24, 2024).

As outlined in the project description, the project proposes to construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. No hazardously tall structures or other hazards to aviation are anticipated to be proposed as part of the project. Therefore, the proposed project would not result in development of an incompatible land use within the LUCP. In addition, as discussed in Section 4.13, Noise, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. Therefore, impacts would be **less than significant**.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ***(No Impact)***

The proposed trail would mostly run along the existing City right-of-way. Smaller portions of the project would be constructed on unpaved land designated for grazing. The proposed project includes construction of mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, **no impact** related to this topic would occur.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ***(Less Than Significant Impact)***

A wildland fire is a fire occurring in a suburban or rural area that contains uncultivated land, timber, range, brush, or grasslands. Wildland fires are primarily a concern in areas where there is a mix of developed and undeveloped lands. The proposed project is primarily within an urban area and is not within a State Responsibility Area, as mapped by California Department of Forestry and Fire Protection (CAL FIRE).[50] Portions of the trail alignment that parallel the eastern portion of De Ronde Road are located in a Federal Responsibility Area. Mapping compiled by the Metropolitan Transportation Commission and Association of Bay Area Governments show that the project site is not in any fire hazard severity zones.[51]

The proposed project does not involve construction of residential or commercial structures or any other structures for human occupation. Therefore, implementation of the proposed project would not expose people or structures to significant loss, injury, or death from wildfires beyond the existing condition and impacts related to this topic would be **less than significant**.

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50 California Department of Forestry and Fire Protection (CAL FIRE). 2020. *State Responsibility Area Viewer*. Website: https://data.ca.gov/dataset/state-responsibility-area-sra-viewer (accessed June 6, 2024).

51 Metropolitan Transportation Commission/Association of Bay Area Governments. 2018c. *Fire Hazard Severity Zone Map*. Website: mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, (accessed June 6, 2024).

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 groundwater 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 offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
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?	☐	☐	☒	☐

*a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? **(Less Than Significant Impact)***

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the San Francisco Bay Regional Water Quality Control Board (RWQCB) is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and waterbodies within the region. Section 303(d) of the federal Clean Water Act (CWA) requires that states identify waterbodies including bays, rivers, streams, creeks, and coastal areas that do not meet water quality standards and the pollutants that are causing the impairment. Total maximum daily loads (TMDL) describe the maximum amount of a pollutant that a waterbody can receive while still meeting established water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed and that action plans are implemented that examine factors and sources adversely affecting water quality and identify specific plans to improve overall water quality and reduce pollutant discharges into impaired waterbodies.

The project site extends along three public roadways – Markeley Lane, DeRonde Road, and Parker Road. Within the project limits, Markeley Lane, De Ronde Road and Parker Road generally consist of one travel lane in each direction ranging in width from 12 to 18 feet. The project site also includes a portion of undeveloped land adjacent to an existing storm drain channel on the west side of Travis Air Force Base and a portion of undeveloped grazing land south of the existing Fairfield-Vacaville Hannigan Train Station. This portion of the project site is proposed for residential development consistent with the Train Station Specific Plan.

Th project site is within the Union Creek-Frontal Suisun bay Estuaries Watershed, which ultimately drains to Suisun Bay via Suisun Slough.[52] Under existing conditions, stormwater from the portions of the project site along Markeley Lane, DeRonde Road, and Parker Road is collected by existing curb and gutter stormwater infrastructure located within the roadways and is discharged into the existing storm drain channel that runs along De Ronde Drive. Stormwater from the remaining portions of the project site either infiltrates at the project site or discharges into existing adjacent stormwater infrastructure and the existing storm drain channel.

Stormwater from the existing storm drain channel along De Ronde Drive discharges to Union Creek, south of Travis Air Force Base, which discharges to Hill Slough. Hill Slough then discharges to Suisun Slough, which travels though the Suisun Marsh Wetlands and ultimately drains to Suisun Bay. According to the SWRCB Surface Water Quality Assessment 2024 Integrated Report for Clean Water Act Sections 303(d) and 305(b)[53], Hill Slough is listed as an impaired waterbody for mercury and dissolved oxygen, Suisun Slough is listed for mercury, pesticides (diazinon), and dissolved oxygen, and Suisun Marsh Wetlands is listed for mercury, nutrients (including organic enrichment/low dissolved oxygen), water temperature, and salinity/total dissolved solids/chlorides. Suisun Bay is listed as an impaired water body for pesticides (chlordane, dichlorodiphenyltrichloroethane [DDT], and dieldrin), toxic organics (dioxin compounds [including 2, 3, 7, 8-tetrachlorodibenzodioxin], furan compounds, polychlorinated biphenyls [PCBs], PCBs [dioxin-like]), invasive species, and metals (mercury and selenium). Union Creek is not listed as impaired for any constituents. TMDLs have been adopted for all of the listed constituents for Hill Slough, Suisun Slough, Suisun Marsh Wetlands, and Suisun Bay, which would be applicable to the proposed project.

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the CWA). The NPDES program's objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the San Francisco Bay RWQCB.

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52 City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July. Website: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed October 25, 2024, 2024).

53 State Water Resources Control Board. 2024. *2024 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)*. Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.waterboards.ca.gov%2Fwater_issues%2Fprograms%2Ftmdl%2F2023_2024state_ir_reports%2Fapx-a-2024-303d-list-final.xlsx&wdOrigin=BROWSELINK (accessed July 2025).

Construction activities are subject to the SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2022-0057-DWQ, NPDES No. CAS000002 (Construction General Permit).[54] Any construction activity, including grading, that would result in the disturbance of 1 acre or more would require compliance with SWRCB's Construction General Permit, which requires preparation of Stormwater Pollution Prevention Plan (SWPPP) and implementation of Construction Best Management Practices (BMPs) during construction activities. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

Construction. The proposed project would result in the construction of approximately 1.5 miles of paved Class I, Class III, and Class IV bicycle trails connecting Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked, and they have the potential to be transported via stormwater runoff into receiving waters. Groundwater quality impacts could also occur if construction chemicals spill or leak and infiltrate into areas of shallow groundwater. However, excavation associated with the proposed project is not anticipated to reach depths that would require groundwater dewatering.

Because the proposed project is anticipated to result in greater than 1 acre of disturbed soil area during project construction, the project would be required to comply with the Construction General Permit. The proposed project would also be required to comply with Chapter 22B, Stormwater Management and Discharge Control, of the City's Municipal Code,[55] which specifies provisions for storm water quality, management, and discharge control during project construction including the implementation of construction site controls.

As required by the Construction General Permit and the City's Municipal Code, the Construction Contractor would be required to prepare a SWPPP and implement construction BMPs detailed in the SWPPP during construction activities. Construction BMPs would include, but are not limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

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54 NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002).

55 City of Fairfield. 2010. *Fairfield Municipal Code, Chapter 22B Stormwater Management and Discharge Control*. Website: https://www.codepublishing.com/CA/Fairfield/#!/html/Fairfield22B.html (accessed October 25, 2024).

With compliance with the Construction General Permit, including preparation of a SWPPP and implementation of construction BMPs, construction impacts related to surface water quality standards, waste discharge requirements, and surface water quality would be less than significant.

Operation. Pollutants of concern from long-term operation of the proposed project include pathogens (bacteria/virus), nutrients, and trash and debris. Potential sources of these pollutants associated with the proposed project include:

- **Pathogens:** Sediment
- **Nutrients:** Sediment, and trash/debris
- **Trash and Debris:** Food wrappers, and food wastes

Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. As previously discussed, TMDLs have been adopted for all of the listed constituents for Hill Slough, Suisun Slough, Suisun Marsh Wetlands, and Suisun Bay, which would be applicable to the proposed project.

Pursuant to Section 402 of the Clean Water Act and the Porter-Cologne Act, municipal stormwater discharges in the City are regulated under the San Francisco Bay RWQCB's Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008 (MRP).[56] The MRP is overseen by the San Francsico Bay RWQCB. Local municipalities (the permittees) are responsible for ensuring compliance with the MRP. Provision C.3.b.ii.(5) of the MRP requires that all public road reconstruction projects, including bicycle lanes that are built or rebuilt as part of the existing streets or roads, that create or replace one acre or more of impervious surface, include Low Impact Development (LID) measures or Green Stormwater Infrastructure (GSI) to address increased runoff and pollutants in runoff. Compliance with the MRP is implemented through Chapter 22B, Stormwater Management and Discharge Control, of the City's Municipal Code, which requires compliance with all applicable requirements set forth in Provision C.3 of the MRP.

As the proposed project would result in approximately 63,000 square feet (1.4 acres) of impervious surface area along the project alignment, the proposed project would be subject to the LID or GSI requirements of the MRP. Operational BMPs that meet LID requirements include source controls, site design, LID treatment measures, and hydromodification management measures (if necessary). Source control BMPs are preventative measures that are implemented to prevent the introduction of pollutants into stormwater. Site design BMPs are stormwater management strategies that emphasize conservation and use of existing site features to reduce the amount of runoff and pollutant loading generated from a project site. LID treatment measures include infiltration, evapotranspiration, rainwater harvesting/use, and biotreatment/bioretention. Hydromodification management measures are features that control runoff peaks, volumes, and durations, and are only implemented where needed to control erosion in creeks. As stormwater runoff from the proposed project would

[56] San Francisco Bay Regional Water Quality Control Board. 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. May 11.

not discharge directly into a creek, hydromodification management measures would not be required.

The MRP provides sizing and design guidelines for stormwater treatment systems constructed for Regulated Projects. Provision C.3.d requires that treatment systems shall be designed to treat stormwater runoff equal to the volume of annual runoff required to achieve 80 percent or more capture or the flow of runoff resulting from a rain event equal to at least 0.2 inch per hour intensity. In addition, Provision C.3.d requires bioretention (infiltration) devices be designed to achieve a maximum 5 inches per hour infiltration rate, include engineered biotreatment soil mix, and include a raised underdrain for maximum infiltration (if allowed). Compliance with the requirements of the MRP by including operational BMPs to manage and treat stormwater runoff from the project alignment and adherence to the sizing and design requirements detailed in the MRP would ensure that impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality during project operation would be less than significant.

Overall, because the proposed project would be required to comply with existing regulations including the Construction General Permit, Chapter 22.B of the City's Municipal Code, and the MRP, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impacts would be **less than significant**.

b. Would the project 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)***

The project site lies within the Suisun-Fairfield Valley Groundwater Basin.[57] The Suisun-Fairfield Valley Groundwater Basin is composed of low alluvial plains, surrounding foothills and mountains located immediately north of Suisun Bay. The basin is bounded on the west by the foothills of the Coast Ranges located west of Green Valley. The southern extent of the Vaca Mountains forms the basin boundary to the north and its eastern extent is marked by low ridges of consolidated rock that appear near Vacaville and extend southeast to the Montezuma Hills. The basin drains to Suisun Bay in the south.[58]

Construction. As previously discussed, excavation associated with the proposed project is not anticipated to reach depths that would require groundwater dewatering. Grading and construction activities would compact soil, which can decrease infiltration to the groundwater basin during construction. However, construction activities would be temporary, and the reduction in infiltration

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57 City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR).* July. Available online at: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed October 25, 2024, 2024).

58 California Department of Water Resources. 2003. 2-003 Suisun-Fairfield Valley Basin Boundaries Description. Website: https://data.ca.gov/dataset/groundwater-basin-boundary-descriptions-san-francisco-region-2-xxx-basins/resource/eeaaebfb-616e-4937-b70f-348ce1713b48 (accessed October 25, 2024).

would not be substantial. Therefore, impacts related to the decrease of groundwater supplies or interference with groundwater recharge during construction would be less than significant.

Operation. The proposed project would not involve dewatering or the use of groundwater as potable water during operation. In addition, although the proposed project would introduce new impervious surfaces at the project site, the proposed project would not result in the construction of large areas of impervious surfaces that would prevent groundwater from infiltrating into the groundwater basin, nor would the project result in direct additions to or withdrawal of existing groundwater. Therefore, impacts related to the decrease of groundwater supplies or interference with groundwater recharge during operation would be less than significant.

Overall, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management. Impacts would be **less than significant**.

c. Would the project 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)***

During construction activities, soil would be exposed and disturbed, and drainage patterns would be temporarily altered, resulting in an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. As discussed above, the project would be required to comply with the Construction General Permit, including preparation of a SWPPP and implementation of construction BMPs to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. The proposed project would also be required to comply with Chapter 22B, Stormwater Management and Discharge Control, of the City's Municipal Code which specifies provisions for storm water quality, management and discharge control during project construction including the implementation of a construction site controls. Therefore, adherence to the requirements of the Construction General Permit and the City's Municipal Code would ensure that construction of the proposed project would not result in substantial erosion or siltation.

After the completion of construction, the proposed project would increase impervious surface area along the project alignment due to the construction of new paved bicycle trails. Impervious surface area would not be prone to onsite erosion or siltation because no soil would be included in these areas. Therefore, onsite erosion and siltation impacts would be minimal. Additionally, the proposed project would include LID BMPs, including source control, site design, and LID treatment measures, in compliance with the MRP. These operational BMPs would meet the design and sizing requirements of the MRP in order to adequately manage and treat stormwater runoff from the project alignment. Additionally, compliance with MRP requirements and standard conditions of approval require applicants to establish and maintain drainage patterns so as to not adversely affect adjacent properties and rights-of-way. Therefore, the proposed project would not result in substantial erosion or siltation due to alteration of drainage patterns, and impacts would be **less than significant**.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; ***(Less Than Significant Impact)***

Construction of the proposed project would disturb and compact soil and drainage patterns would be temporarily altered, which can increase the volume and velocity of stormwater runoff and increase the potential for localized flooding compared to existing conditions. As previously discussed, the proposed project would be required to comply with the Construction General Permit and the City's Municipal Code. Compliance with the Construction General Permit and the City's Municipal Code and preparation and implementation of a SWPPP that includes BMPs to control and direct surface runoff on-site would reduce impacts associated with on- or off-site flooding. Construction activities would be short-term and would be limited to the dry season. Therefore, adherence to the Construction General Permit and the City's Municipal Code would ensure that construction of the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result flooding on- or off-site, and impact would be less than significant.

Implementation of the proposed project would increase impervious surface area along the project alignment due to the construction of new paved bicycle trails which, without compliance with regulatory requirements, have the potential to increase the volume and rate of stormwater runoff discharged from the project site. However, the proposed project would include LID BMPs, including source control, site design, and LID treatment measures, in compliance with the MRP. These operational BMPs would meet the design and sizing requirements of the MRP to adequately manage and treat stormwater runoff from the project alignment. Specifically, Provision C.3.d requires that treatment systems shall be designed to treat stormwater runoff equal to the volume of annual runoff required to achieve 80 percent or more capture or the flow of runoff resulting from a rain event equal to at least 0.2 inch per hour intensity. In addition, Provision C.3.d requires bioretention (infiltration) devices be designed to achieve a maximum 5 inches per hour infiltration rate, include engineered biotreatment soil mix, and include a raised underdrain for maximum infiltration (if allowed).

Therefore, compliance with the MRP would ensure the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, and impacts would be **less than significant**.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or ***(Less Than Significant Impact)***

Stormwater Drainage System Capacity. Implementation of the proposed project would increase impervious surface area along the project alignment due to the construction of new paved bicycle trails. However, the proposed project would comply with all applicable NPDES regulations, including the Construction General Permit and the MRP. Construction and operational BMPs would be implemented to reduce pollutants of concern in stormwater runoff from the project site. In addition, the operational BMPs would be appropriately sized to treat stormwater runoff equal to the volume of annual runoff required to achieve 80 percent or more capture or the flow of runoff resulting from a rain event equal to at least 0.2 inch per hour intensity. Therefore, the proposed project would not

cause an exceedance of the capacity of the existing stormwater drainage systems and impacts would be **less than significant.**

Polluted Runoff. Implementation of BMPs to reduce pollutants of concern in stormwater runoff in compliance with the Construction General Permit and the MRP would ensure that the proposed project would result in less than significant impacts related to discharge of polluted runoff during project construction and operations. Therefore, the proposed project would not contribute additional sources of polluted runoff, and impacts would be **less than significant**.

iv. Impede or redirect flood flows? ***(No Impact)***

According to the City's General Plan EIR, the project site is within Zone X, which is identified as an area of minimal flood hazard.[59] Further, the project site is not within a 100-year floodplain. As the proposed project would not place improvements within a 100-year floodplain or an identified flood hazard area, the proposed project would not impede or redirect flood flows. In addition, the project site would remain relatively flat, and the proposed project would not substantially alter drainage patterns. Therefore, **no impact** related to impeding or redirecting of flood flows would occur.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ***(Less Than Significant Impact)***

Flooding. As discussed above, according to the City's General Plan EIR, the entirety of the project site is in Zone X, which is identified as an area of minimal flood. During construction, BMPs would be implemented to ensure that during a rain event, pollutants would be retained on site and would be prevented from reaching downstream receiving waters in accordance with the Construction General Permit and City Municipal Code. During operation, the proposed project would include BMPs in compliance with the MRP, which would ensure that pollutants would be treated and prevented from reaching downstream receiving waters. In addition, according to the California Department of Water Resources Division of Safety of Dams, the project site is not within a dam inundation area.[60] Therefore, the proposed project would not result in the release of pollutants due to flooding cause by a dam failure.

Tsunami. Tsunamis are ocean waves generated by tectonic displacement of the seafloor associated with shallow earthquakes, seafloor landslides, rockfalls, and exploding volcanic islands. Tsunamis can have wavelengths of up to 120 miles and travel as fast as 500 miles per hour across hundreds of miles of deep ocean. Upon reaching shallow coastal waters, the waves can reach up to 50 feet in height, causing great devastation to near-shore structures. The project site is approximately 50 miles from the Pacific Ocean shoreline, which is well outside of the tsunami zone. Therefore, the project

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59 City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR).* July. Available online at: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdlTxeJQV0 (accessed October 25, 2024).

60 California Department of Water Resources, Division of Safety of Dams. n.d. *Dam Breach Inundation Map Web Publisher.* Website: https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2 (accessed October 25, 2024).

site would not be subject to inundation from tsunamis, and there would be no risk of release of pollutants due to inundation from tsunami.

Seiches. Seiching occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities (e.g., reservoirs and lakes). Such waves can cause retention structures to fail and flood downstream properties. No large, enclosed body of water is present in the vicinity of the project site. Because impacts from seiches are very localized and the project site is miles from enclosed bodies of water, implementation of the proposed project would not result in the release of pollutants due to inundation cause by a seiche. Therefore, the project site would not be subject to inundation from seiche waves, and there would be no risk of release of pollutants due to inundation from seiche.

With compliance with the Construction General Permit and City Municipal Code, and because the project site is not within a tsunami or seiche zone, impacts related to risk of release of pollutants due to project inundation would be **less than significant**.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ***(Less Than Significant Impact)***

In the Bay Area, including the project site, the San Fransico RWQCB is responsible for implementation of the Basin Plan. The Basin Plan establishes beneficial water uses for waterways and waterbodies within the region. As previously discussed, the proposed project would comply with existing NPDES permit and City Municipal requirements, and would implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff. Compliance with these regulatory requirements would ensure that the proposed project would not degrade or alter water quality, causing the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. As such, the proposed project would not result in water quality impacts that would conflict with the San Fransico RWQCB Basin Plan. Construction and operational impacts related to a conflict with the Basin Plan would be less than significant.

The Sustainable Groundwater Management Act (SGMA) was enacted in September 2014. The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdraft of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies in high- and medium-priority basins. These agencies are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. The project site lies within the Suisun-Fairfield Valley Groundwater Basin, which is designated as a low-priority groundwater basin.[61] Therefore, the project site is not within a delineated groundwater basin subject to the SGMA. Additionally, the proposed project would not require the use or consumption of groundwater resources. Therefore, the proposed project would not result in impacts related to a conflict with or obstruction of a sustainable groundwater management plan, and impacts would be **less than significant**.

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[61] City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July. Available online at: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed October 25, 2024, 2024).

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 a 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?	☐	☐	☒	☐

*a. Would the project physically divide an established community? **(No Impact)***

The physical division of an established community typically refers to the construction of a physical feature (such as an Interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and an outlying area.

The proposed project would construct Class I, Class III and Class IV trails and pedestrian paths connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would not construct a physical feature or remove any means of access that would impair mobility within an existing community. Instead, implementation of the proposed project would provide an important active transportation connection in the area that would enhance connectivity between public transportation facilities, schools, and Travis Air Force Base. Therefore, the proposed project would not physically divide an established community, and **no impact** would occur.

*b. Would the project cause a 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)***

Approximately 50 percent of the proposed project would be constructed within City of Fairfield right-of-way. Easements would be required from the residential development between the Fairfield-Vacaville Hannigan Train Station south portal and Markeley Lane. The City is currently working with the developer to incorporate the Class I bike trail and pedestrian pathway into the development design. In addition, an easement would be required from the United States Air Force to construct the trail on the west side of Travis Air Force Base adjacent to the existing storm drain channel. An easement may also be required from the Travis Unified School District, depending on which trail route is ultimately selected. Potential driveway conforms at Forbes Street may be required on Travis Air Force Base property.

Planning policies and regulations applicable to the proposed project include the City's General Plan and Zoning Ordinance, Fairfield City Council Bike Plan,[62] Solano Countywide Active Transportation Plan,[63] Solano Countywide Local Road Safety Plan,[64] and the Travis Air Force Base Land Use Compatibility Plan.[65]

The proposed project would directly support the goals of the City's General Plan and the Fairfield City Council Bike Plan and would be consistent with the City's Zoning Ordinance. These plans contain goals and policies that support a multi-modal transportation system to encourage walking and bicycling as an alternative to automobile use. In addition, the City's General Plan Circulation Element identifies proposed bicycle facilities along Markeley Lane and De Ronde Drive.[66] As the proposed project would construct a Class IV separated bike lane along Markeley Lane and De Ronde Drive, the proposed project would help to implement the bicycle circulation network envisioned in the City's General Plan. Additional relevant policies relate to the protection of natural resources, water quality, and provision of public services. Many project impacts related to these topics are less than significant or limited to the short-term construction phase of the project described in relevant sections of this IS/MND. With mitigation measures contained in this IS/MND, the proposed project is consistent with all the relevant regulations and policies contained in these documents.

The proposed project is also included in the Solano Countywide Active Transportation Plan adopted by the Solano Transportation Authority Board and conforms to the goals of the plan by providing an equitable and safe facility for users of all ages and abilities. Chapter 4 of the Solano Countywide Local Road Safety Plan summarizes crash data, identifies emphasis areas, recommends high priority project locations, and outlines the implementation and evaluation strategies for the City. As the proposed project is intended to provide a safe route from the Fairfield-Vacaville Hannigan Train Station to three schools and Travis Air Force Base, the proposed project would be consistent with the goals of Chapter 4 of the Solano Countywide Local Road Safety Plan.

According to the Travis Air Force Base Land Use Compatibility Plan, the entire project site is within Zone D of the Airport Influence Area. Zone D prohibits development that would result in hazards to flight, such as physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. No other restrictions on development apply within Zone D. Because the

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62 City of Fairfield. 2021. *Fairfield City Council Bike Plan*. June. Website: https://www.fairfieldcity.nsw.gov.au/files/assets/public/v/1/documents/plan_build/att-a-latest-ffc-bike-plan-final-29.06.2021.pdf (accessed October 24, 2024).

63 Solano Transportation Authority. 2020. *Solano County Active Transportation Plan, Fairfield ATP*. Website: https://sta.ca.gov/wp-content/uploads/2020/06/Fairfield.pdf (accessed October 24, 2024).

64 Solano Transportation Authority. 2022. *Solano Countywide Local Road Safety Plan, Chapter 4 Fairfield Local Road Safety*. August.

65 Solano County. 2024c. *Travis Air Force Base Land Use Compatibility Plan*. August 8. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=34765 (accessed October 24, 2024).

66 City of Fairfield. 2013a. *City of Fairfield General Plan Circulation Element, Bicycle Facilities, Existing and Proposed*. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/3164/637546871928600000 (accessed October 24, 2024).

proposed project would not result in any hazardously tall structure or other hazards to aviation, the proposed project would be consistent with the Travis Air Force Base Land Use Compatibility Plan.

Therefore, implementation of the proposed project would result in a **less than significant** impact related to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

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?	☐	☐	☐	☒

*a. Would the project 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 Surface Mining and Reclamation Act (SMARA) of 1975 established a land classification system to identify areas that have the potential to generate mineral resources. SMARA's classification system for such lands was established as four Mineral Resource Zones (MRZs) as follows:

- **MRZ-1:** These are areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
- **MRZ-2:** These are areas where the available geologic information indicates that there are significant mineral deposits or that there is a likelihood of significant mineral deposits. However, the significance of the deposit is undetermined.
- **MRZ-3:** These are areas where the available geologic information indicates that mineral deposits are inferred to exist; however, the significance of the deposit is undetermined.
- **MRZ-4:** These are areas where there is not enough information available to determine the presence or absence of mineral deposits.

According to the City's General Plan EIR,[67] the project site is in MRZ-1, indicating no significant mineral deposits are located in the project area. Therefore, implementation of the proposed project would not 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, and **no impact** would occur.

[67] City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July. Available online at: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed October 23, 2024, 2024).

b. Would the project 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)***

As discussed above, the City's General Plan EIR determined that the project site is in an area with no significant mineral deposits. Therefore, the proposed project would not 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, and **no impact** would occur.

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 2 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?	☐	☐	☒	☐

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through A-weighted decibels (dBA), and this scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements which better represent how humans are more sensitive to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the Community Noise Equivalent Level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within 1 dBA of each other and are normally

exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would result in a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Fairfield. Chapter 25, Article X – Noise Regulations, Section 25.1404 Specific Prohibitions, of the City's Municipal Code states the following:

> "No person shall do, cause or suffer or permit to be done on any premises owned, occupied or controlled by such person, any of the following acts:
>
> Construction activities – Operating or permitting the operation of any tools or equipment used in construction, grading or demolition works between the hours of 10:00 p.m. and 7:00 a.m. except by written permission of the Director of Public Works."

Although the City does not have daytime construction noise level limits for activities that take place within the specified hours in Section 25.1404 to determine potential CEQA noise impacts, construction noise was assessed using criteria from the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual).[68] Table 4.13.A shows the Federal Transit Administration's (FTA) Detailed Assessment Construction Noise Criteria based on the composite noise levels per construction phase.

Table 4.13.A: Detailed Assessment Daytime Construction Noise Criteria

Land Use	Daytime 8-hour L_{eq} (dBA)
Residential	80
Commercial	85
Industrial	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level

Vibration standards included in the FTA Manual are used in this analysis for ground-borne vibration impacts on human annoyance. The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table 4.13.B provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building.

68 Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123*. September.

Table 4.13.B: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration.
Office	84	Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration.
Residential Day	78	Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20×).
Residential Night and Operating Rooms	72	Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100×) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in 1/3-octave bands of frequency over a frequency range of 8 to 80 Hertz.
FTA = Federal Transit Administration
Max = maximum
L_V = velocity in decibels
VdB = vibration velocity decibels

The criteria for potential damage impacts resulting from ground-borne vibration and noise are based on the maximum levels for a single event. The City's Municipal Code does not include specific criteria for assessing vibration impacts associated with damage. Therefore, for the purpose of determining the significance of vibration impacts experienced at sensitive uses surrounding the project site, the guidelines within the FTA Manual have been used to determine vibration impacts (refer to Table 4.13.C, below).

Table 4.13.C: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Non-engineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
in/sec = inches per second
FTA = Federal Transit Administration
PPV = peak particle velocity

The FTA Manual guidelines show that a vibration level of up to 0.2 inches per second (in/sec) in peak particle velocity (PPV) is considered safe for non-engineered timber and masonry buildings and would not result in any construction vibration damage. Therefore, to be conservative, the 0.2 in/sec in the PPV threshold has been used when evaluating vibration impacts at the nearest structures to the site.

a. Would the project result in 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)***

Construction-Period Impacts. Project construction would result in short-term noise and vibration. It is noted that construction activities are exempt from compliance with noise ordinance criteria based on Section 8.20.070 of the Fairfield City Code. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of various types of construction noise and vibration would vary from 1 day to several weeks, depending on the phase of construction. The following describes levels and types of impacts that may occur during construction.

Two types of short-term noise would occur during project construction including (1) equipment delivery and construction worker commutes and (2) project construction operations.

The first type of short-term construction noise would result from the transport of construction equipment and materials to the project site and construction worker commutes. These transportation activities would incrementally raise noise levels on access roads leading to the site. It is expected that larger trucks used in equipment delivery would generate higher noise impacts than trucks associated with worker commutes. The single-event noise from equipment trucks passing at a distance of 50 feet from a sensitive noise receptor would reach a maximum level of 84 dBA maximum instantaneous noise level (L_{max}). However, the pieces of heavy equipment for construction activities would be moved on site just one time and would remain on site for the duration of each construction phase. This one-time trip, when heavy construction equipment is moved on and off site, would not add to the daily traffic noise in the project vicinity. The total number of daily vehicle trips would be minimal when compared to existing traffic volumes on the affected streets, and the long-term noise level changes associated with these trips would not be perceptible. Therefore, equipment transport noise and construction-related worker commute impacts would be short term and would not result in a significant off-site noise impact.

The second type of short-term noise impact is related to noise generated during construction at the project site. Construction is undertaken in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 4.13.D lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 feet between the construction equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1–2 minutes of full power operation followed by 3–4 minutes at lower power settings. Table 4.13.E lists the typical noise levels for each construction phase.

Table 4.13.D: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (Lmax) at 50 feet
Compressor	100	81
Concrete Mixer	40	85
Concrete Pump	40	85
Crane	16	83
Dozer	40	80
Forklift	20	75
Front [End] Loader	40	79
Generator	100	78
Grader	8	85
Impact Pile Drivers	20	95
Scraper	40	88
Welder	40	74

Source 1: Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances (EPA 1971)
Source 2: Roadway Construction Noise Model (FHWA 2006).
FHWA = Federal Highway Administration
L_{max} = maximum instantaneous sound level
EPA = United States Environmental Protection Agency

Table 4.13.E: Noise Levels by Construction Phase

Phase	Composite Reference Level at 50 feet	
	dBA L_{max}	dBA L_{eq}
Linear, Demolition, and Land Clearing	86	82
Linear, Grading, and Excavation	91	89
Linear, Drainage Sub-Grade	91	89
Linear, Paving	89	86

Source: Compiled by LSA (2025).
dBA = A-weighted decibels
L_{eq} = equivalent continuous noise level
L_{max} = maximum instantaneous noise level

In addition to the reference maximum noise level, the usage factor provided in Table 4.13.D is used to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period

E.L. = Noise emission level of the particular piece of equipment at a reference distance of 50 ft

U.F. = Usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

D = Distance from the receiver to the piece of equipment

Each piece of construction equipment operates as an individual point source. Using the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously;

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

Using the equations from the methodology above and the reference information in Table 4.13.D, the composite noise level would be 89 dBA L_{eq} at a distance of 50 feet from the construction area. This noise level would be the same for the loudest phase at each project location. Table 4.13.E provides a summary of the reference noise levels during construction by phase.

The nearest sensitive receptor would be the Vanden High School buildings within approximately 15 feet of the proposed trail alignment, particularly the buildings along De Ronde Drive. It is expected that noise levels during construction at the nearest sensitive receptors could exceed those presented in Table 4.13.E if equipment were to be within 50 feet of the school buildings and multiple pieces of equipment operated simultaneously. This is a potentially significant impact. All other sensitive receptors are farther from areas of construction and would therefore experience lower noise levels.

Although construction-related, short-term noise levels have the potential to be higher than existing ambient noise levels in the vicinity of the proposed project and the noise impacts would no longer occur once project construction is completed. Construction-related noise impacts at the nearest sensitive receptors could exceed the 90 dBA L_{eq} 1-hour construction noise level criteria as established by the FTA; however, this exceedance is expected to be of short duration.[69]

Compliance with the City's Noise Ordinance would ensure that construction noise would not disturb the sensitive receptors during hours when ambient noise levels are likely to be lower (i.e., at night). Implementation of Mitigation Measure NOI-1 would limit construction hours and require the implementation of noise-reducing measures during construction. Therefore, with implementation of Mitigation Measure NOI-1, construction noise impacts would be less than significant.

Mitigation Measure NOI-1 **Construction Noise.** Prior to commencement of construction activities, the City of Fairfield shall verify that grading and construction plans include the following requirements to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved:

69 Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123*. September.

- Construction activities occurring as part of the project shall be subject to the limitations and requirements of the City of Fairfield Municipal Code, which states that construction activities are allowed between the hours of 7:00 a.m. to 10:00 p.m.
- During all project area excavation and on-site grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- To the best extent possible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project area.
- Construction staging areas shall be located as far away from sensitive receptors as possible during all phases of construction.

Operation-Period Impacts. Operation of the project would involve pedestrian and cyclist use of the trail and related amenities; neither hiking nor cycling generate substantial noise, and the closest sensitive receptors already experience noise from vehicles traveling on De Ronde Drive, Markeley Lane, and other local roadways. Consequently, trail users are expected to generate an incremental increase in the noise levels adjacent to nearby residences, resulting in permanent noise level increases that are less than significant.

As described above, with the incorporation of Mitigation Measure NOI-1, the project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or any other applicable standards. Therefore, this impact would be **less than significant with mitigation incorporated**.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels? ***(Less Than Significant with Mitigation Incorporated)***

Ground-borne noise and vibration from construction activity would be low. Table 4.13.F provides reference PPV values (in terms of in/sec) and vibration levels in root-mean-square (RMS) (in terms of vibration velocity decibels [VdB]) from typical construction vibration sources at 25 feet. Although there is currently limited information regarding vibration source levels specific to the equipment that would be used for the project, to provide a comparison of vibration levels expected for a project of this size, a large bulldozer would generate 0.089 PPV (in/sec) or 87 VdB of ground-borne vibration when measured at 25 feet, based on the FTA Manual.

Table 4.13.F: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Pile Driver (Impact), Typical	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS VdB re 1 µin/sec.
µin/sec = micro-inches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity in decibels

The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would only be used at or near the project setback line). The formula for vibration transmission is:

$$L_vdB\ (D) = L_vdB\ (25\ feet) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

As identified above, sensitive receptor structures are approximately 15 feet from the proposed construction activities and would experience vibration levels approaching 0.191 in/sec PPV. Construction vibration levels at these structures could exceed the FTA threshold of 0.2 in/sec PPV for non-engineered timber and masonry building damage if heavy equipment were to operate within 15 feet of the structures. For example, vibration levels at a distance of 14 feet would be 0.212 in/sec PPV. Therefore, construction that would take place within 15 feet of existing structures would exceed the FTA vibration damage thresholds, resulting in a potentially significant impact.

Construction period activities could result in significant short-term vibration for sensitive receptor structures in the project vicinity. Implementation of Mitigation Measure NOI-2 would be required to maintain a minimum distance of 15 feet between the heavy construction equipment and the adjacent structures. Implementation of Mitigation Measure NOI-2 would ensure that construction vibration levels would be below the FTA threshold of 0.2 in/sec PPV for building damage, thereby reducing potential vibration impacts to less than significant. In addition, due to the linear nature of the project, construction activities at any one receptor location would occur for a limited duration.

Mitigation Measure NOI-2 The use of heavy construction equipment, such as large bulldozers or excavators, within 15 feet of existing structures shall be prohibited.

Construction vibration associated with the project would be less than significant with implementation of Mitigation Measure NOI-2. Therefore, construction of the proposed project would not result in generation of excessive ground-borne vibration or ground-borne noise levels. Ground-borne vibration would not be associated with the proposed project following construction activities. This impact would be **less than significant with mitigation incorporated.**

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 2 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?* ***(Less Than Significant Impact)***

Travis Air Force Base, a government owned military base and airport, is adjacent to the project site. According to the Travis Air Force Base Land Use Compatibility Plan (LUCP)[70], the entire project site is within Zone D of the Airport Influence Area (AIA). The project site is also within the City's Airport Overlay Zoning District, which is coterminous with the AIA. Zone D prohibits development that would result in hazards to flight, such as physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. No other restrictions on development apply within Zone D.

As outlined in the project description, the project proposes to construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. These types of facilities are allowed within Zone D. Further, although the project site would be subject to noise associated with frequent aircraft overflight, the project site is located outside of the 60 dBA CNEL noise contour as identified in the LUCP[71] and exposure of such noise for trail users would be temporary and intermittent, as their use of the trails would be of short duration. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels. Therefore, impacts would be **less than significant**.

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70 County of Solano. 2024a. *Travis Air Force Base Land Use Compatibility Plan*. August 8. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=34765 (accessed October 24, 2024).

71 County of Solano. 2024b. Figure 2 - 2015 Maximum Mission CNEL Contours, *Travis Air Force Base Land Use Compatibility Plan*. August 8. Website: https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=34765 (accessed October 24, 2024).

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?	☐	☐	☐	☒

a. Would the project 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 proposed project would construct Class I, Class III and Class IV bicycle trails and pedestrian paths connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed paths would provide bicycle and pedestrian connections and would not induce substantial growth in the area either directly or indirectly. The proposed project would not provide additional vehicle access or additional major infrastructure to the project site. Additionally, the proposed project would not facilitate development of any dwelling units or commercial or industrial structures. Therefore, **no impact** related to substantial unplanned population growth would occur.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ***(No Impact)***

Although housing is located in the vicinity of the proposed trail alignment and residential uses are proposed as part of the future subdivision development south of the train station, no property with existing dwellings would be acquired for the implementation of the proposed project. Although trail development would involve the dedication of easements, no existing housing would be removed or displaced as a result of the proposed project, and construction of replacement housing would not be required. **No impact** related to the displacement of people or housing would occur.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

a. 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:

i. Fire protection? ***(No Impact)***

Fire protection services are provided to the project site by the Fairfield Fire Department. Fairfield Fire Department has five fire stations, with Fairfield Fire Department Station 41, located at 3200 North Texas Street, being the closest to the project site (approximately 5.5 miles south). As discussed in Section 4.14, Population and Housing, implementation of the proposed project would not result in substantial population growth. Therefore, the demand for fire protection services would not substantially increase with development of the proposed project. In addition, the new trail would be clearly marked to aid in access and timely response for medical emergencies. Therefore, the proposed project would not result in the need for additional or altered fire protection services, and **no impact** would occur.

ii. Police protection? ***(No Impact)***

The City of Fairfield Police Department provides police protection services in the City of Fairfield. Fairfield Police Department headquarters is at 1000 Webster Street in Fairfield, approximately 7 miles west of the project site. Public use of the proposed project is not expected to generate a significant increase in calls for police services and would not generate the need for additional officers or equipment. Therefore, the proposed project would not result in the need for additional or altered police protection facilities, and **no impact** would occur.

iii. *Schools?* ***(No Impact)***

The project site and surrounding areas are served by the Fairfield Suisun Unified School District. As discussed in Section 4.14, Population and Housing, implementation of the proposed project would not result in substantial population growth. Therefore, implementation of the proposed project would not increase demand for school services. In addition, the proposed project is intended to serve the existing student populations at Center Elementary School, Golden West Middle School, and Vanden High School by providing a safer route to school for students who bicycle or walk. **No impact** related to schools would occur.

v. *Parks?* ***(No Impact)***

As discussed in Section 4.14, Population and Housing, implementation of the proposed project would not result in substantial population growth. Therefore, implementation of the proposed project would not significantly increase the usage of existing parks and open space areas, nor would it increase the demand for new park facilities within the vicinity of the proposed trail alignment. Therefore, **no impact** to parks would occur.

v. *Other public facilities?* ***(No Impact)***

Other public facilities would include facilities such as libraries, post offices, meeting rooms, or hospitals. As discussed in Section 4.14, Population and Housing, implementation of the proposed project would not result in substantial population growth. Therefore, implementation of the proposed project would not increase demand for other public facilities, and **no impact** would occur.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project 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?	☐	☐	☒	☐

a. Would the project 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? ***(No Impact)***

As discussed in Section 4.14, Population and Housing, implementation of the proposed project would not result in substantial population growth. Therefore, implementation of the proposed project would not significantly increase the usage of existing parks or recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated. **No impact** would occur.

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 Impact)***

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails, which is considered a recreational facility as well as a multimodal transportation facility. Potential impacts associated with the implementation of the proposed project are discussed throughout this IS/MND and mitigation measures have been prescribed, as necessary, to ensure less than significant impacts on the environment. As noted in Sections 4.14, Population and Housing, and 4.15, Public Services, the proposed project would not substantially increase population or the use of local facilities such that new facilities or the expansion of existing recreational facilities are needed. Therefore, this impact would be **less than significant**.

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. Conflict or be inconsistent with CEQA Guidelines §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?	☐	☐	☒	☐

a. *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?* ***(Less Than Significant Impact)***

Implementation of the proposed project would result in the development of Class I, Class III and Class IV bicycle lanes and pedestrian paths connecting the Fairfield-Vacaville Hannigan Train Station with three schools and the Travis Air Force Base. Planning policies and regulations addressing the circulation system applicable to the proposed project include the City of Fairfield General Plan, Fairfield City Council Bike Plan,[72] Solano Countywide Active Transportation Plan,[73] and the Solano Countywide Local Road Safety Plan.[74]

As discussed in Section 4.11, Land Use and Planning, the proposed project would directly support the goals of the City's General Plan and the Fairfield City Council Bike Plan. These plans contain goals and policies, which support a multi-modal transportation system to encourage walking and bicycling as an alternative to automobile use. In addition, the City's General Plan Circulation Element identifies proposed bicycle facilities along Markeley Lane and De Ronde Drive.[75] As the proposed project would construct a Class IV separated bike lane along Markeley Lane and De Ronde Drive, the proposed project would help to implement the bicycle circulation network envisioned in the City's General Plan.

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72 City of Fairfield. 2021. Fairfield City Council Bike Plan. June. Website: https://www.fairfieldcity.nsw.gov.au/files/assets/public/v/1/documents/plan_build/att-a-latest-ffc-bike-plan-final-29.06.2021.pdf (accessed October 24, 2024).

73 Solano Transportation Authority. 2020. Solano County Active Transportation Plan, Fairfield ATP. Website: https://sta.ca.gov/wp-content/uploads/2020/06/Fairfield.pdf (accessed October 24, 2024).

74 Solano Transportation Authority. 2022. Solano Countywide Local Road Safety Plan, Chapter 4 Fairfield Local Road Safety. August.

75 City of Fairfield. 2013b. *City of Fairfield General Plan Circulation Element, Bicycle Facilities, Existing and Proposed*. https://www.fairfield.ca.gov/home/showpublisheddocument/3164/637546871928600000 (accessed October 24, 2024).

The proposed project is also included in the Solano Countywide Active Transportation Plan adopted by the Solano Transportation Authority Board and conforms to the goals of the plan by providing an equitable and safe facility for users of all ages and abilities. Chapter 4 of the Solano Countywide Local Road Safety Plan summarizes crash data, identifies emphasis areas, recommends high priority project locations, and outlines the implementation and evaluation strategies for Fairfield. As the proposed project is intended to provide a safe route from the Fairfield-Vacaville Hannigan Train Station to three schools and Travis Air Force Base, the proposed project would be consistent with the goals of Chapter 4 of the Solano Countywide Local Road Safety Plan.

Therefore, the proposed project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities and impacts would be **less than significant**.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? ***(Less Than Significant Impact)***

With the current *State CEQA Guidelines*, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT). The City of Fairfield's Guidelines for Project VMT Screening Transportation Analysis[76] provide screening criteria to determine if a proposed project should be expected to prepare a detailed VMT analysis. According to the guidelines, small projects and projects within 0.5 mile of high-quality transit may be presumed to have a less than significant VMT impact. Small projects are defined as generating fewer than 110 daily maximum trips. As the proposed project would develop bicycle and pedestrian facilities connecting the Fairfield-Vacaville Hannigan Train Station with existing uses in the area, the proposed project is not anticipated to generate any additional vehicle trips to and from the project site. In addition, the proposed project would connect to the Fairfield-Vacaville Hannigan Train Station, which is considered a high-quality transit facility. Therefore, consistent with the City's guidelines, the proposed project would not result in a substantial or measurable increase in VMT, and VMT impacts would be **less than significant**.

c. Would the project 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 proposed project involves construction of a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and the Travis Air Force Base. The proposed project would consist of both on-street and off-street trail segments. Implementation of proposed on-street trail segments would alter public roadways to accommodate trail improvements; however, the proposed bicycle facilities would adhere to City design standards to ensure safety. Similarly, the design of the proposed bicycle facilities would ensure safe trail crossings at intersections and mid-block street crossings. The proposed project alignment would be located on existing public roadways, incorporated into a private development project or located on undeveloped land adjacent to an existing channel. Proposed trail facilities are consistent with

[76] City of Fairfield. 2020. *Fairfield Guidelines for Project VMT Screening Transportation Analysis*. December 22. Website: https://www.fairfield.ca.gov/home/showpublisheddocument/4634/637554858963330000 (accessed October 24, 2024).

existing roadway infrastructure in the project vicinity, and would be compatible with surrounding land uses. As such, the proposed project would not result in hazards due to incompatible uses (e.g., farm equipment). Therefore, the proposed project would result in a **less than significant** impact related to hazards associated with a design feature or incompatible uses.

d. Would the project result in inadequate emergency access? ***(Less Than Significant Impact)***

The proposed project would not result in inadequate emergency access and would instead provide new bicycle and pedestrian trail connections between the Fairfield-Vacaville Hannigan Train Station, nearby schools, and Travis Air Force Base. Implementation of the proposed project would improve access allowing for easier ingress and egress for pedestrians, and bicyclists during an emergency. Therefore, impacts associated with emergency access would be **less than significant**.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a. Would the project 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 Resource 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)***

Assembly Bill 52, which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts to "tribal cultural resources" with significant environmental impacts. Public Resources Code (PRC) Section 21074 states that "tribal cultural resources" are:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are one of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources [California Register].
- Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.
- 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

A "historical resource" (PRC Section 21084.1), a "unique archaeological resource" (PRC Section 21083.2(g)), or a "nonunique archaeological resource" (PRC Section 21083.2 (h)) may also be a tribal cultural resource if it is included or determined to be eligible for inclusion in the California Register.

The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency's notification list for CEQA projects. Within 14 days of determining whether a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously requested to be on the agency's notification list. California Native American tribes must be recognized by the California Native American Heritage Commission as traditionally and culturally affiliated with the project site and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (PRC Sections 21080.3.1, 21080.3.2, 21082.3).

In compliance with AB 52 requirements, a request form describing the proposed project and map depicting the project site was sent to the Native American Heritage Commission (NAHC) in West Sacramento requesting a list of tribes eligible to consult with the City, pursuant to PRC Section 21080.3.1, on January 21, 2025. On January 23, 2025, the NAHC responded in a letter with a list of tribal contacts. The City sent letters to these individuals on August 11, 2025, notifying them of their opportunity to consult for this project. No requests for consultation were received.

As discussed in Section 4.5, Cultural Resources, a record search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, which identified two resources within the project site, P-48-002050 and -002051. Both of these resources are single family farmsteads that were found not eligible for the California Register of Historical Resources (California Register) due to a lack of significance. The NWIC records search identified 10 previously recorded cultural resources within 0.5 mile of the project site. Two marginal prehistoric period resources (48-000148 and -000149, both vernal pools) are within several hundred feet of the project; three additional historic period archaeological resources (48-000735, remnants of a

farmstead with structural debris, water management/ conveyance features and refuse deposit; 48-002053, water conveyance feature; and 48-002058, an aircraft crash site) along with one built environment resource (48-000199, a functioning railroad) are documented within 0.5 mile.

In addition, a search of the Sacred Lands File (SLF) by the NAHC was also requested to determine the potential presence of Native American cultural resources that might be affected by the proposed project. Ms. Pricilla Torres-Fuentes, NAHC Cultural Resource Analyst, responded to the search request on January 23, 2025, stating that a search of the SLF for the study area had negative results for Native American cultural resources within the project site and there were no known Native American cultural resources in the project site.

No known significant archaeological or tribal cultural resources are located within the project site and the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as 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 listed or eligible for listing in the California Register or in a local register of historical resources as defined in PRC Section 5020.1(k).

Additionally, there are no tribal cultural resources within the project site that have been determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1(c). The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource defined as 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 listed or eligible for listing in the California Register or in a local register of historical resources as defined in PRC Section 5020.1(k). With implementation of Mitigation Measures CUL-1 and CUL-2, as detailed in Section 4.5, Cultural Resources, and compliance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC, the potential construction-period discovery of previously unidentified human remains, which may be of tribal origin, would be reduced to **less than significant with mitigation incorporated**.

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 stormwater 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?	☐	☐	☐	☒

*a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? **(Less Than Significant Impact)***

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and the Travis Air Force Base.

Water. The City of Fairfield provides water service for residential, commercial, industrial, governmental, and fire suppression uses within city limits, excluding the Travis Air Force Base. The City's water supply comes from surface water, derived from the Solano Project, the State Water Project through contracts with the Solano County Water Agency, and Settlement Water obtained through negotiation with the California Department of Water Resources in 2003.[77] The Solano Project stores raw water in Lake Berryessa and delivers it to Fairfield via Putah Creek and the Putah South Canal; the State Water Project stores raw water in Lake Oroville and delivers it via the Sacramento River, Barker Slough, and the North Bay Aqueduct.

[77] City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July 26. Website: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed October 24, 2024).

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would not include the construction of any new buildings, requiring any new or relocated utility lines. In addition, the increase in water demand associated with construction of the proposed facilities would be negligible. Therefore, the proposed project would not require the construction or expansion of new or existing water facilities, and impacts would be less than significant.

Wastewater. The Fairfield-Suisun Sewer District (FSSD) and the Cities of Fairfield and Suisun City jointly operate and maintain the wastewater collection system that serves both cities. Wastewater collected in City and FSSD-owned sewers is pumped through four major pump stations to the FSSD Wastewater Treatment Plant, located off Chadbourne Road south of Cordelia Road within the City. On average, the Wastewater Treatment Plant receives approximately 15 million gallons (mgd) of wastewater per day. In 2010, improvements were completed to increase the plant's capacity from 17.5 to 23.7 mgd. Therefore, there is an excess capacity of approximately 8.7 mgd.[78]

The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. The proposed project would not include the construction of any new buildings, requiring any new or relocated sewer lines. Operation of the project would not require wastewater treatment as no wastewater generating uses would be constructed as part of the proposed project. Additionally, the proposed project would not require or result in construction of new wastewater treatment facilities or require the expansion of existing facilities. Therefore, no impact related to wastewater treatment would occur.

Stormwater. Drainage and flood control in Fairfield is the responsibility of the Solano County Water Agency. The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station with three schools and Travis Air Force Base. As the proposed project would result in approximately 63,000 square feet (1.4 acres) of impervious surface area along the project alignment, the proposed project would be subject to the low-impact development or Green Stormwater Infrastructure requirements of the San Francisco Bay RWQCB's Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008 (MRP) to address increased runoff and pollutants in runoff. The proposed stormwater infrastructure would be constructed in accordance with all City regulations and requirements and be designed consistent with the requirements of the MRP. Therefore, impacts associated with the construction of the proposed stormwater infrastructure would be less than significant.

Natural Gas, Electricity and Telecommunication. Pacific Gas and Electric (PG&E) provides natural gas and electricity to the City and its residents. The proposed project would construct a mixture of Class I, Class III and Class IV bicycle trails connecting the Fairfield-Vacaville Hannigan Train Station

[78] City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July 26. Website: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdlTxeJQV0 (accessed October 24, 2024).

with three schools and Travis Air Force Base. The proposed project would result in no change to existing natural gas usage, as facilities requiring natural gas would be constructed or required as part of proposed project. Lighting is proposed along trail segments to promote security and safety for trail users, which would tie into existing electric utilities. Proposed lighting standards are not anticipated to generate substantial additional demand for electricity such that new facilities or expansion of facilities would be required. In addition, no new telecommunication facilities or expansion of existing telecommunication facilities would be required. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded gas, electricity or telecommunications facilities, and impacts would be less than significant.

Overall, the proposed project would not require the construction or expansion of new or existing water, wastewater treatment, natural gas, electricity, or telecommunication facilities. In addition, all proposed stormwater infrastructure would be constructed in accordance with all City regulations and requirements and be designed consistent with the requirements of the MRP. Therefore, impacts related to the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects, would be **less than significant**.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? ***(No Impact)***

Construction of the proposed project would temporarily require small amounts of water for cleanup activities. During construction, water would be provided via a water truck. Use of water would cease when construction is complete. Sufficient water supplies are available to provide for the project's minimal water needs during the construction phase of the project. Water would not be required for long-term operation of the project, as no potable or non-potable water facilities are proposed. The proposed project would not include any new structures or facilities that would generate water demand, and there would be **no impact** to existing or future water supplies.

c. Would the project 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)***

As noted above, the proposed project would not include the construction of any new facilities that would generate demand for wastewater services. Therefore, there would be **no impact** to wastewater treatment services.

d. Would the project 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)***

Construction of the proposed project could generate a small amount of solid waste. The majority of the construction waste would be organic materials such as cleared vegetation and dirt, as well as waste generated by construction workers. The generation of such solid waste would be temporary, and non-hazardous waste would be hauled to the Potrero Hills Landfill. The Potrero Hills Landfill has a maximum daily permitted throughput of 4,330 tons and a remaining capacity of 13,872,000 tons,

with an anticipated closure date of February 14, 2048.[79] This facility has the capacity to handle the small amount of waste that would be generated by construction of the proposed project. Operation of the proposed project would not generate solid waste.

The amount of construction waste would not be substantial and would not result in a significant reduction in the capacity of the landfill. Therefore, the proposed project would not affect landfill capacity, and impacts would be **less than significant.**

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ***(No Impact)***

The California Integrated Waste Management Act of 1989 reorganized solid waste disposal planning within the State of California. The legislation required every county to adopt a Countywide Integrated Waste Management Plan describing local waste diversion and disposal conditions as well as create programs to meet State goals for diverting waste from landfills. A mandatory diversion goal was established diverting 25 percent of waste from landfills by 1995 and 50 percent by 2000 and maintaining 50 percent thereafter.

The City of Fairfield is under the jurisdiction of the Solano Countywide Integrated Waste Management Plan.[80] The Solano Countywide Integrated Waste Management Plan consists of five elements, including the Countywide Siting Element, Countywide Non-Disposal Facility Element, Source Reduction and Recycling Element, Household Hazardous Waste Element, and the Summary Plan. The proposed project would comply with all regulations outlined in the plan and elements, as well as any other federal, State, and local statutes and regulations related to solid wastes, including waste diversion programs. Therefore, **no impact** related to conflict with regulations related to solid waste would occur.

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79 California Department of Resources Recycling and Recovery (CalRecycle). 2019. *SWIS Facility/Site Activity Details, Potrero Hills Landfill (48-AA-0075).* Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591 (accessed June 11, 2024).

80 Solano County. n.d. *Countywide Integrated Waste Management Plan Documents*. Website: https://www.solanocounty.com/depts/rm/planning/solano_county_recycling/ciwmp_planning_documents.asp (accessed October 24, 2024).

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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

*a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? **(No Impact)***

Mapping compiled by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) indicate that the project site is not located in any Fire Hazard Severity Zones.[81] The proposed project is primarily located within an urban area and, according to CAL FIRE, is not within a State Responsibility Area. Portions of the trail alignment that parallel the eastern portion of De Ronde Road are in a Federal Responsibility Area. [82]

As discussed in Section 4.9, Hazards and Hazardous Materials, due to the nature of the proposed project, no impairment or interference with emergency response or emergency evacuation plans would occur. Therefore, **no impact** would occur.

*b. Would the project, 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? **(Less Than Significant Impact)***

As discussed above, the proposed project is not in a fire hazard severity zone and would not involve construction of any structures intended for human occupation. Therefore, the proposed project

81 Metropolitan Transportation Commission/Association of Bay Area Governments. 2018c. *Fire Hazard Severity Zone Map.* Website: mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, (accessed June 6, 2024).

82 California Board of Forestry and Fire Protection. 2020. *State Responsibility Area Viewer*. Website: bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer (accessed June 6, 2024).

would not exacerbate wildfire risks beyond existing conditions, and this impact would be **less than significant**.

c. Would the project 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? ***(No impact)***

As discussed above, the proposed project is not in a fire hazard severity zone and would not involve construction of any structures intended for human occupation. As the proposed project would not include any buildings, no fuel breaks, emergency water sources, power lines, or other utilities that may exacerbate fire risk or result in impacts to the environment would be installed as part of the proposed project. Therefore, **no impact** would occur.

d. Would the project 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?

The proposed project would include construction of a multi-use trail. As discussed in Section 4.10, Hydrology and Water Quality, the proposed project would implement best management practices and erosion control measures during construction to manage runoff flows. Additionally, the proposed project would be required to implement low-impact development techniques, as required by the MRP and as detailed in Section 4.10, that would not significantly alter drainage patterns compared to existing conditions. Furthermore, the project site is not within a flood zone[83] or within an area identified as having potential for landslides. Therefore, the proposed project would not have the potential to expose people or structures to downslope or downstream flooding or landslides, and impacts would be **less than significant**.

[83] City of Fairfield. 2024. *City of Fairfield General Plan Update and Climate Action Plan Draft Environmental Impact Report (EIR)*. July. Available online at: https://files.ceqanet.opr.ca.gov/272201-3/attachment/BTmbDnRiqwul7lE0eU4K2ktcnjWzgEcieV8iNpylHKeuZyrfhXkw0c4_cMLp6OIsGhRghRyJdITxeJQV0 (accessed January 2025).

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 considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

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 with Mitigation Incorporated)***

Implementation of the mitigation measures recommended in this Initial Study/Mitigated Negative Declaration (IS/MND) would ensure that the construction and operation of the proposed project would not substantially degrade the quality of the environment; reduce the habitat, population, or range of a plant or animal species; or eliminate important examples of California history or prehistory. Section 4.4, Biological Resources, includes mitigation measures (Mitigation Measures BIO-1 through BIO-9) to minimize impacts to special-status species, including special-status plants, Crotch's bumble bee, California tiger salamander, vernal pool fairy shrimp, vernal pool tadpole shrimp, northwestern pond turtle, Swainson's hawk, burrowing owl, raptors, and nesting birds.

Mitigation (Mitigation Measures CULT-1 and CULT-2) is provided in Section 4.5, Cultural Resources, in the event that unanticipated archaeological resources, including human remains, are identified in the project area during construction. With implementation of these mitigation measures, the proposed project would result in less than significant impacts to the quality of the environment. This impact 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 considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? ***(Less Than Significant with Mitigation Incorporated)***

The *State CEQA Guidelines* require a discussion of significant environmental impacts that would result from project-related actions in combination with "closely related past, present, and probably future projects: located in the immediate vicinity" (*State CEQA Guidelines* Section 15130[b][1][A]). Cumulative environmental impacts are those impacts that by themselves are not significant, but when considered with impacts occurring from other projects in the vicinity would result in a cumulative impact. Related projects considered to have the potential of creating cumulative impacts in association with the proposed project consist of projects that are reasonably foreseeable and that would be constructed or operated during the life of the proposed project.

The proposed project's impacts would be individually limited and not cumulatively considerable. The potentially significant impacts that can be reduced to a less than significant level with implementation of recommended mitigation measures include the topics of air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, and noise. These impacts would primarily be related to construction-period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics. For the topic of air quality, potentially significant impacts to air quality standards and exposure of sensitive receptors to substantial pollutant concentrations associated with project construction would be reduced to less than significant levels with implementation of Mitigation Measure AIR-1. For the topic of biological resources, implementation of Mitigation Measures BIO-1 through BIO-9 would ensure that impacts to special-status species, wetlands, wildlife movement corridors, and protected trees would be less than significant. For the topic of cultural resources, potentially significant impacts to archaeological and cultural resources and human remains would be reduced to less than significant with implementation of Mitigation Measures CUL-1 and CUL-2. For the topic of geology and soils, potentially significant impacts associated with strong seismic ground shaking, unstable soils, expansive soils, and paleontological resources would be reduced to less than significant with implementation of Mitigation Measures GEO-1 and GEO-2. For the topic of noise, potentially significant impacts related to construction noise and vibration would be reduced to less than significant with implementation of Mitigation Measures NOI-1 and NOI-2.

For all other topics, the project would have no impacts or less than significant impacts and, therefore, would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the proposed project would be reduced to less than significant through the implementation of the mitigation measures recommended in this document.

Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be **less than significant with mitigation incorporated.**

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ***(No Impact)***

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects to human beings, beyond those topics previously discussed in Sections 4.1 through 4.20 of this IS/MND. **No impacts** would occur.

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APPENDIX A

CALEEMOD OUTPUT SHEETS

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Travis Safe Routes to School and Transit Project Custom Report

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1.1. Basic Project Information

Data Field	Value
Project Name	Travis Safe Routes to School and Transit Project
Construction Start Date	7/5/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.70000
Precipitation (days)	2.20000
Location	38.27959675599999, -121.9605466864081
County	Solano-San Francisco
City	Fairfield
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	841
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Construction	1.50000	Mile	4.28000	0.00000	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65705	50.5202	39.2137	0.06550	1.59460	1.77729	3.37189	1.45598	0.26799	1.72397	—	7,623.51	7,623.51	0.30168	0.19389	7,691.59
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65020	50.6023	39.0815	0.06550	1.59460	1.77729	3.37189	1.45598	0.26799	1.72397	—	7,599.63	7,599.63	0.30416	0.19471	7,665.33
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47615	14.4564	11.1964	0.01865	0.45998	0.51925	0.97923	0.42037	0.07826	0.49864	—	2,169.81	2,169.81	0.08648	0.05508	2,188.73
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08690	2.63830	2.04335	0.00340	0.08395	0.09476	0.17871	0.07672	0.01428	0.09100	—	359.236	359.236	0.01432	0.00912	362.369

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.65705	50.5202	39.2137	0.06550	1.59460	1.77729	3.37189	1.45598	0.26799	1.72397	—	7,623.51	7,623.51	0.30168	0.19389	7,691.59

2028	1.28208	41.5215	31.5081	0.05434	1.20839	1.30265	2.51104	1.10207	0.17462	1.27669	—	5,966.15	5,966.15	0.23594	0.05671	5,989.87
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.65020	50.6023	39.0815	0.06550	1.59460	1.77729	3.37189	1.45598	0.26799	1.72397	—	7,599.63	7,599.63	0.30416	0.19471	7,665.33
2028	1.64098	50.5578	39.0042	0.06550	1.59460	1.77729	3.37189	1.45598	0.26799	1.72397	—	7,573.91	7,573.91	0.30416	0.18944	7,638.03
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.47615	14.4564	11.1964	0.01865	0.45998	0.51925	0.97923	0.42037	0.07826	0.49864	—	2,169.81	2,169.81	0.08648	0.05508	2,188.73
2028	0.39398	12.1631	9.33486	0.01553	0.37820	0.35716	0.73535	0.34691	0.05025	0.39716	—	1,721.77	1,721.77	0.06827	0.01776	1,728.90
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.08690	2.63830	2.04335	0.00340	0.08395	0.09476	0.17871	0.07672	0.01428	0.09100	—	359.236	359.236	0.01432	0.00912	362.369
2028	0.07190	2.21977	1.70361	0.00283	0.06902	0.06518	0.13420	0.06331	0.00917	0.07248	—	285.058	285.058	0.01130	0.00294	286.239

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16525	4.25115	3.43048	0.00453	0.19292	—	0.19292	0.18150	—	0.18150	—	490.763	490.763	0.01991	0.00398	492.447
Dust From Material Movement	—	—	—	—	—	0.20680	0.20680	—	0.02233	0.02233	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01177	0.30282	0.24436	0.00032	0.01374	—	0.01374	0.01293	—	0.01293	—	34.9584	34.9584	0.00142	0.00028	35.0784
Dust From Material Movement	—	—	—	—	—	0.01473	0.01473	—	0.00159	0.00159	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00215	0.05526	0.04460	0.00006	0.00251	—	0.00251	0.00236	—	0.00236	—	5.78777	5.78777	0.00023	0.00005	5.80763
Dust From Material Movement	—	—	—	—	—	0.00269	0.00269	—	0.00029	0.00029	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04208	0.02734	0.43990	0.00000	0.00000	0.10333	0.10333	0.00000	0.02422	0.02422	—	107.645	107.645	0.00193	0.00405	109.287
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00282	0.00226	0.02715	0.00000	0.00000	0.00735	0.00735	0.00000	0.00172	0.00172	—	7.17712	7.17712	0.00018	0.00031	7.28527

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00051	0.00041	0.00495	0.00000	0.00000	0.00134	0.00134	0.00000	0.00031	0.00031	—	1.18825	1.18825	0.00003	0.00005	1.20616
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Linear, Grading & Excavation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51191	49.4649	37.5487	0.05998	1.57897	—	1.57897	1.44543	—	1.44543	—	6,494.84	6,494.84	0.26346	0.05269	6,517.13
Dust From Material Movement	—	—	—	—	—	1.24633	1.24633	—	0.13481	0.13481	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51191	49.4649	37.5487	0.05998	1.57897	—	1.57897	1.44543	—	1.44543	—	6,494.84	6,494.84	0.26346	0.05269	6,517.13
Dust From Material Movement	—	—	—	—	—	1.24633	1.24633	—	0.13481	0.13481	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42310	13.8424	10.5077	0.01678	0.44186	—	0.44186	0.40449	—	0.40449	—	1,817.54	1,817.54	0.07373	0.01475	1,823.78
Dust From Material Movement	—	—	—	—	—	0.34878	0.34878	—	0.03773	0.03773	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07722	2.52624	1.91766	0.00306	0.08064	—	0.08064	0.07382	—	0.07382	—	300.914	300.914	0.01221	0.00244	301.947
Dust From Material Movement	—	—	—	—	—	0.06365	0.06365	—	0.00689	0.00689	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12624	0.08201	1.31971	0.00000	0.00000	0.30999	0.30999	0.00000	0.07266	0.07266	—	322.934	322.934	0.00579	0.01215	327.861
Vendor	0.00083	0.03177	0.01256	0.00019	0.00037	0.00705	0.00742	0.00037	0.00195	0.00232	—	25.7547	25.7547	0.00084	0.00388	26.9879
Hauling	0.01806	0.94146	0.33273	0.00534	0.01526	0.21392	0.22919	0.01018	0.05857	0.06874	—	779.695	779.695	0.03154	0.12515	819.330
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12046	0.10714	1.18330	0.00000	0.00000	0.30999	0.30999	0.00000	0.07266	0.07266	—	298.651	298.651	0.00827	0.01298	302.756
Vendor	0.00079	0.03353	0.01298	0.00019	0.00037	0.00705	0.00742	0.00037	0.00195	0.00232	—	25.7747	25.7747	0.00084	0.00388	26.9535
Hauling	0.01704	0.99666	0.33654	0.00534	0.01526	0.21392	0.22919	0.01018	0.05857	0.06874	—	780.083	780.083	0.03154	0.12515	818.208
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03325	0.02658	0.31999	0.00000	0.00000	0.08663	0.08663	0.00000	0.02030	0.02030	—	84.5875	84.5875	0.00208	0.00363	85.8621
Vendor	0.00023	0.00921	0.00356	0.00005	0.00010	0.00197	0.00207	0.00010	0.00054	0.00065	—	7.20964	7.20964	0.00024	0.00109	7.54585
Hauling	0.00498	0.27314	0.09361	0.00149	0.00427	0.05980	0.06407	0.00285	0.01637	0.01922	—	218.237	218.237	0.00883	0.03502	229.083
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00607	0.00485	0.05840	0.00000	0.00000	0.01581	0.01581	0.00000	0.00371	0.00371	—	14.0044	14.0044	0.00034	0.00060	14.2155
Vendor	0.00004	0.00168	0.00065	0.00001	0.00002	0.00036	0.00038	0.00002	0.00010	0.00012	—	1.19364	1.19364	0.00004	0.00018	1.24930
Hauling	0.00091	0.04985	0.01708	0.00027	0.00078	0.01091	0.01169	0.00052	0.00299	0.00351	—	36.1317	36.1317	0.00146	0.00580	37.9273

3.5. Linear, Grading & Excavation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51191	49.4649	37.5487	0.05998	1.57897	—	1.57897	1.44543	—	1.44543	—	6,494.47	6,494.47	0.26344	0.05269	6,516.76
Dust From Material Movement	—	—	—	—	—	1.24633	1.24633	—	0.13481	0.13481	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00888	0.29040	0.22044	0.00035	0.00927	—	0.00927	0.00849	—	0.00849	—	38.1280	38.1280	0.00155	0.00031	38.2588

Dust From Material Movement	—	—	—	—	—	0.00732	0.00732	—	0.00079	0.00079	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00162	0.05300	0.04023	0.00006	0.00169	—	0.00169	0.00155	—	0.00155	—	6.31253	6.31253	0.00026	0.00005	6.33419
Dust From Material Movement	—	—	—	—	—	0.00134	0.00134	—	0.00014	0.00014	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11632	0.09665	1.11096	0.00000	0.00000	0.30999	0.30999	0.00000	0.07266	0.07266	—	293.139	293.139	0.00827	0.01298	297.241
Vendor	0.00079	0.03208	0.01257	0.00019	0.00037	0.00705	0.00742	0.00037	0.00195	0.00232	—	25.1627	25.1627	0.00084	0.00369	26.2861
Hauling	0.01196	0.96410	0.33197	0.00534	0.01526	0.21392	0.22919	0.01018	0.05857	0.06874	—	760.733	760.733	0.03154	0.12007	797.338
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00068	0.00049	0.00631	0.00000	0.00000	0.00182	0.00182	0.00000	0.00043	0.00043	—	1.74174	1.74174	0.00004	0.00008	1.76809
Vendor	< 0.000005	0.00018	0.00007	< 0.000005	< 0.000005	0.00004	0.00004	< 0.000005	0.00001	0.00001	—	0.14766	0.14766	< 0.000005	0.00002	0.15437
Hauling	0.00007	0.00554	0.00194	0.00003	0.00009	0.00125	0.00134	0.00006	0.00034	0.00040	—	4.46479	4.46479	0.00019	0.00070	4.68309
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00012	0.00009	0.00115	0.00000	0.00000	0.00033	0.00033	0.00000	0.00008	0.00008	—	0.28836	0.28836	0.00001	0.00001	0.29273

Vendor	< 0.000005	0.00003	0.00001	< 0.000005	< 0.000005	0.00001	0.00001	< 0.000005	< 0.000005	< 0.000005	—	0.02445	0.02445	< 0.000005	< 0.000005	0.02556
Hauling	0.00001	0.00101	0.00035	0.00001	0.00002	0.00023	0.00025	0.00001	0.00006	0.00007	—	0.73920	0.73920	0.00003	0.00012	0.77534

3.7. Linear, Drainage, Utilities, & Sub-Grade (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17553	41.4602	30.4275	0.05434	1.20839	—	1.20839	1.10207	—	1.10207	—	5,691.06	5,691.06	0.23085	0.04617	5,710.59
Dust From Material Movement	—	—	—	—	—	1.03399	1.03399	—	0.11165	0.11165	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17553	41.4602	30.4275	0.05434	1.20839	—	1.20839	1.10207	—	1.10207	—	5,691.06	5,691.06	0.23085	0.04617	5,710.59
Dust From Material Movement	—	—	—	—	—	1.03399	1.03399	—	0.11165	0.11165	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29308	10.3367	7.58604	0.01355	0.30127	—	0.30127	0.27476	—	0.27476	—	1,418.87	1,418.87	0.05756	0.01151	1,423.74

Dust From Material Movement	—	—	—	—	—	0.25779	0.25779	—	0.02784	0.02784	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05349	1.88644	1.38445	0.00247	0.05498	—	0.05498	0.05014	—	0.05014	—	234.910	234.910	0.00953	0.00191	235.716
Dust From Material Movement	—	—	—	—	—	0.04705	0.04705	—	0.00508	0.00508	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10654	0.06126	1.08056	0.00000	0.00000	0.26866	0.26866	0.00000	0.06297	0.06297	—	274.685	274.685	0.00502	0.01053	278.864
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10081	0.08376	0.96284	0.00000	0.00000	0.26866	0.26866	0.00000	0.06297	0.06297	—	254.054	254.054	0.00717	0.01125	257.609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02496	0.01808	0.23233	0.00000	0.00000	0.06689	0.06689	0.00000	0.01568	0.01568	—	64.1038	64.1038	0.00143	0.00280	65.0736
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00455	0.00330	0.04240	0.00000	0.00000	0.01221	0.01221	0.00000	0.00286	0.00286	—	10.6131	10.6131	0.00024	0.00046	10.7737
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Linear, Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54368	14.0930	11.3349	0.01495	0.63234	—	0.63234	0.59525	—	0.59525	—	1,619.40	1,619.40	0.06569	0.01314	1,624.95
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05809	1.50583	1.21113	0.00160	0.06756	—	0.06756	0.06360	—	0.06360	—	173.032	173.032	0.00702	0.00140	173.625
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01060	0.27481	0.22103	0.00029	0.01233	—	0.01233	0.01161	—	0.01161	—	28.6473	28.6473	0.00116	0.00023	28.7457
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.08196	0.04712	0.83120	0.00000	0.00000	0.20666	0.20666	0.00000	0.04844	0.04844	—	211.296	211.296	0.00386	0.00810	214.511
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00823	0.00596	0.07659	0.00000	0.00000	0.02205	0.02205	0.00000	0.00517	0.00517	—	21.1331	21.1331	0.00047	0.00092	21.4528
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00150	0.00109	0.01398	0.00000	0.00000	0.00402	0.00402	0.00000	0.00094	0.00094	—	3.49883	3.49883	0.00008	0.00015	3.55176
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	7/5/2027	8/10/2027	5.00000	26.0000	—

Linear, Grading & Excavation	Linear, Grading & Excavation	8/11/2027	1/3/2028	5.00000	104.000	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	1/4/2028	5/10/2028	5.00000	91.0000	—
Linear, Paving	Linear, Paving	5/11/2028	7/4/2028	5.00000	39.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	3.00000	8.00000	6.00000	0.82000
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 2	1.000000	8.00000	87.0000	0.43000
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 2	1.000000	8.00000	36.0000	0.38000
Linear, Grading & Excavation	Excavators	Diesel	Tier 2	3.00000	8.00000	36.0000	0.38000
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 2	1.000000	8.00000	87.0000	0.43000
Linear, Grading & Excavation	Graders	Diesel	Tier 2	1.000000	8.00000	148.000	0.41000
Linear, Grading & Excavation	Rollers	Diesel	Tier 2	2.00000	8.00000	36.0000	0.38000
Linear, Grading & Excavation	Signal Boards	Electric	Average	3.00000	8.00000	6.00000	0.82000
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00000	8.00000	84.0000	0.37000
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 2	1.000000	8.00000	150.000	0.36000
Linear, Grading & Excavation	Scrapers	Diesel	Tier 2	2.00000	8.00000	423.000	0.48000

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 2	2.00000	8.00000	423.000	0.48000
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 2	1.000000	8.00000	96.0000	0.40000
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	3.00000	8.00000	6.00000	0.82000
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00000	8.00000	84.0000	0.37000
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Tier 2	1.000000	8.00000	8.00000	0.43000
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Tier 2	1.000000	8.00000	11.0000	0.74000
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 2	1.000000	8.00000	148.000	0.41000
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 2	1.000000	8.00000	37.0000	0.48000
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Tier 2	1.000000	8.00000	14.0000	0.74000
Linear, Paving	Rollers	Diesel	Tier 2	3.00000	8.00000	36.0000	0.38000
Linear, Paving	Paving Equipment	Diesel	Tier 2	1.000000	8.00000	89.0000	0.36000
Linear, Paving	Pavers	Diesel	Tier 2	1.000000	8.00000	81.0000	0.42000
Linear, Paving	Signal Boards	Electric	Average	3.00000	8.00000	6.00000	0.82000
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00000	8.00000	84.0000	0.37000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	Worker	12.5000	11.7000	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00000	8.40000	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00000	20.0000	HHDT

Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	Worker	37.5000	11.7000	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.000000	8.40000	HHDT,MHDT
Linear, Grading & Excavation	Hauling	11.5385	20.0000	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Worker	32.5000	11.7000	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00000	8.40000	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00000	20.0000	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	Worker	25.0000	11.7000	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00000	8.40000	HHDT,MHDT
Linear, Paving	Hauling	0.00000	20.0000	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	0.00000	0.00000	4.28000	0.00000	0.00000
Linear, Grading & Excavation	0.00000	9,600.00	4.28000	0.00000	0.00000
Linear, Drainage, Utilities, & Sub-Grade	0.00000	0.00000	4.28000	0.00000	0.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	176.105	203.983	0.03300	0.00400
2028	264.157	203.983	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Construction: Off-Road Equipment	Default construction equipment with Tier 2 engines

8.4. Construction

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Linear, Grubbing & Land Clearing	Crawler Tractors	Engine Tier	Average	Tier 2
Linear, Grubbing & Land Clearing	Excavators	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Excavators	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Crawler Tractors	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Graders	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Rollers	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Rubber Tired Loaders	Engine Tier	Average	Tier 2
Linear, Grading & Excavation	Scrapers	Engine Tier	Average	Tier 2

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Graders	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Engine Tier	Average	Tier 2
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Engine Tier	Average	Tier 2
Linear, Paving	Rollers	Engine Tier	Average	Tier 2
Linear, Paving	Paving Equipment	Engine Tier	Average	Tier 2
Linear, Paving	Pavers	Engine Tier	Average	Tier 2
Linear, Paving	Tractors/Loaders/Backhoes	Engine Tier	Average	Tier 2

APPENDIX B

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION SERIES 523 FORM

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State of California – The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #**
PRIMARY RECORD
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code _____ **Reviewer** _____ **Date** _____

 Resource Name: Channelized Union Creek

P1. Other Identifier:

P2. Location ☐ **Not for Publication** ☒ **Unrestricted**

- **a. County:** Solano
- **b. USGS 7.5' Quad:** *Elmira, Calif.*, **Date:** 1953 (revised 1980); **T**5N/**R**1W**;** Section 15, Mount Diablo Baseline & Meridian
- **c. Address:** N/A **City:** Fairfield **Zip:** 94533
- **d. UTMs: Zone** 10S; 590945**mE**/4237043**mN** (north end at Forbes Street), 10S 590952**mE**/4236547**mN** (south end near Air Base Parkway)
- **e. Other Locational Data:** APN: 0174-050-020 (western portion)

P3a. Description: This resource consists of an approximately 1,650 foot (0.31-mile) segment of channelized Union Creek and runs north/south parallelling a segment of De Ronde Road and south towards Air Base Parkway in the Solano County community of Fairfield. The water conveyance feature carries Union Creek west of Travis Air Force Base (Travis AFB). The channelized segment rejoins Union Creek south of Travis AFB. The canal is contained by unlined or earthen levees with a narrowed channel at the base to maintain flow velocity. The canal is crossed via culverts at its junctions with local roads. The segment of Union Creek is located on lands owned by the United States government as part of Travis AFB. This water conveyance feature was constructed circa 1950 to route Union Creek around and through of Travis Field, the precursor of Travis AFB. At Cordero Junction, north of the segment evaluated here, the creek branches into two alignments, one is channelized that carries water south and west around Travis AFB and the other branch carries water south and west around Travis AFB. The likely purpose of this channelized water conveyance feature is to provide extra capacity by diverting water from Union Creek during high flow events to minimize water damage to Travis AFB. See continuation sheets.

P3b. Resource Attributes: AH6 **(**Water conveyance system); HP20 (Canal/aqueduct)

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

P5. Photograph



P5b. Description of Photo:
Channelized Union Creek at Forbes Street crossing, western boundary of Travis AFB. View south. LSA photograph, 4/19/25.

P6. Date Constructed/Age and Source:
☒ **Historic.** Built circa 1950; USGS.

P7. Owner and Address:
United States Air Force
U.S. Government
North Capitol Street
Washington, D.C., 20013

P8. Recorded by:
Michael Hibma, M.A.
LSA Associates, Inc.
157 Park Place
Point Richmond, CA 94801

P9. Date recorded: 5/25/2025

P10. Survey Type: Intensive

P11. Report citation: Hibma, Michael. 2025. *Cultural Resources Assessment for the Safe Routes to School and Transit Project, Fairfield, California*. LSA Associates, Inc., Point Richmond, CA.

Attachments: ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☒ Linear Feature Record

B1. **Historic Name:** *Union Creek*
B2. **Common Name:** Same
B3. **Original Use:** Water conveyance and flood control
B4. **Present Use:** Same
B5. **Architectural Style:** N/A
B6. **Construction History:** This approximately 1,650-foot segment of channelized Union Creek was constructed circa 1950 by the U.S. Government as part of the development of Travis AFB. The purpose of the channelizing Union Creek was to control both the route and flow of water through the growing military facility. Union Creek does not appear on USGS topographic maps until 1953, with the segment of channelized Union Creek was depicted north of the then smaller "Travis Field" as it emerged into the larger modern Travis AFB facility.

B7. **Moved?** ☒**No**
B8. **Related Features:** None
B9. **a. Architect:** Undetermined
b. Builder: Undetermined

B10. **Significance:** **Themes:** Water conveyance infrastructure development **Area:** Travis AFB, Solano County
Period of Significance: N/A **Property Type:** Water Conveyance Infrastructure **Applicable Criteria:** N/A
See continuation sheets.

B11. **Additional Resource Attributes:** None
B12. **References:**
See continuation sheets.



B13. **Remarks:** None

B14. **Evaluator:**
Michael Hibma, M.A.
LSA Associates, Inc.
157 Park Place,
Richmond, California 94801

Date of Evaluation: 5/25/25

(This space reserved for official comments.)

State of California - The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #**
LINEAR FEATURE RECORD
Trinomial

 Resource Name: Channelized Union Creek

L1. Historic and/or Common Name: None

L2a. Portion Described: ☒ 1,650-foot alignment

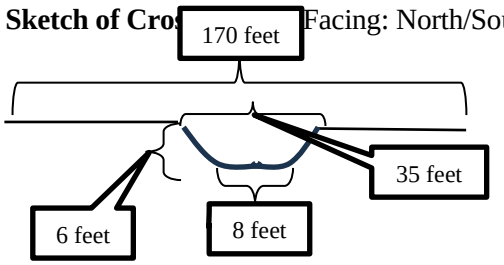
b. Location of point or segment: This resource consists of an approximately 1,650 foot (0.31-mile) segment of channelized Union Creek and runs north/south. The northern terminus is at Forbes Street (UTMs: 10S 590959**mE**/4237048**mN**), parallels a segment of De Ronde Road and terminates at a point just north of Air Base Parkway (UTMs: 10S 590964**mE**/4236544**mN**).

L3. Description:(Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 170 feet
b. Bottom Width: 8 feet
c. Height or Depth: 6 feet
d. Length of Segment: approx. 1,650 feet (.031-mi).

L4e. Sketch of Cros Facing: North/South



L5. Associated Resources: None.

L6. Setting: Eastern Fairfield north of Travis AFB. Various school campuses and institutional properties to west and (defunct?) Travis AFB golf course to the east.

L7. Integrity Considerations: While this segment of channelized Union Creek retains integrity of location, setting, and association with water conveyance, none of the original ca. 1950 construction is visible. This resource does not retain historical integrity of design, materials, workmanship, and feeling. This segment is a typical example of a ditch, a water conveyance feature that is common in Solano County, and in rural areas statewide. It does not appear eligible for inclusion in the California Register of Historical Resources.

L8a. Photograph



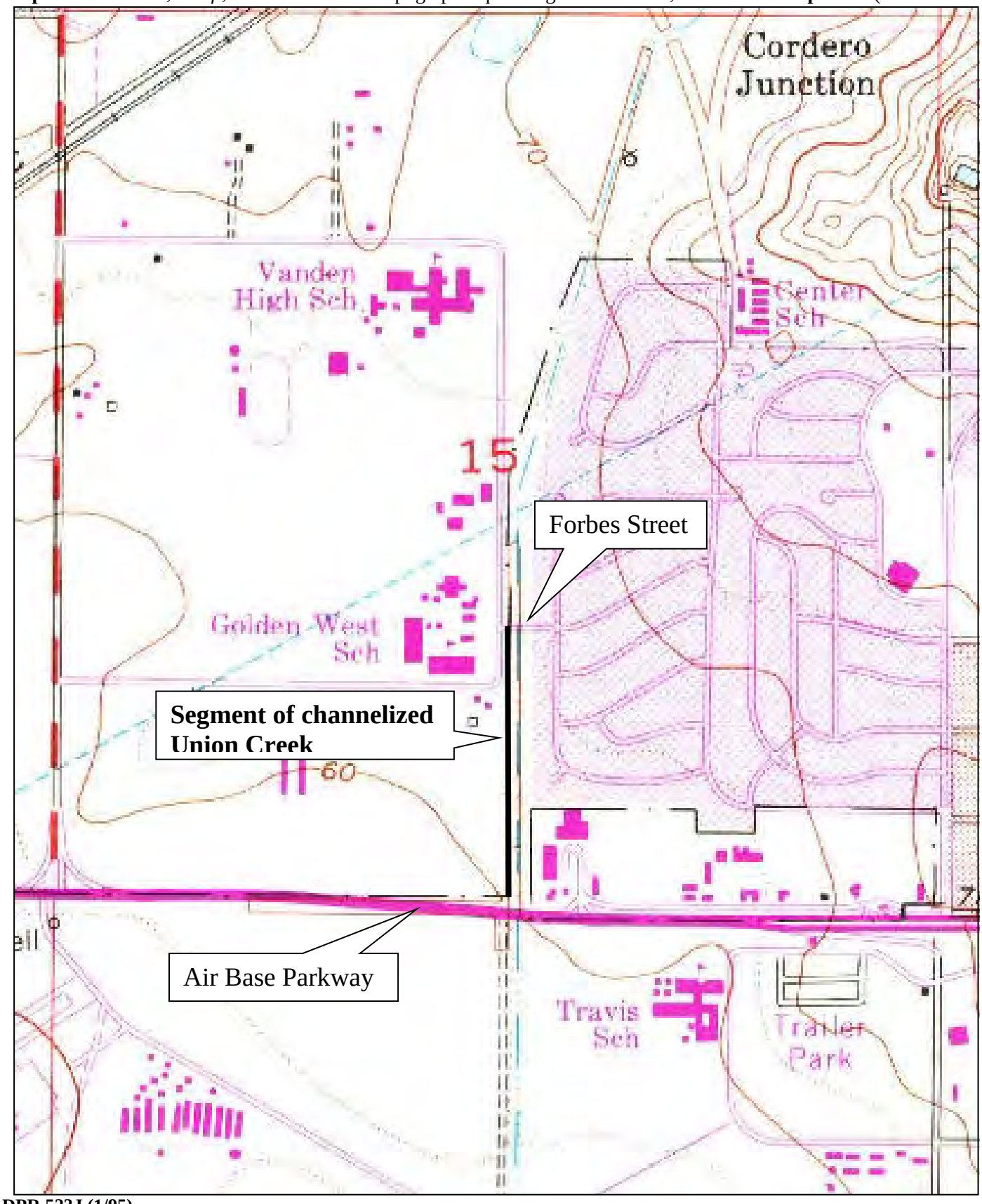
L8b. Description of Photo: Segment of channelized Union Creek at Air Base Parkway. View north. LSA photograph, 54/19/25.

L9. Remarks: None.

L10. Form Prepared by:
Michael Hibma, M.A.
LSA Associates, Inc.
157 Park Place
Richmond, CA 94801

L11. Date: 5/25/25

Map Name: *Elmira, Calif.*, 7.5-minute USGS topographic quadrangle **Scale:** 1:24,000 **Date of Map:** 1953 (revised 1980)



B10. Significance (continued)

HISTORICAL CONTEXT. This resource is in the Solano County community of Fairfield and forms a portion of the eastern boundary of Travis Air Force Base (Travis AFB). The following section identifies and elaborates the historic contexts of settlement and architectural patterns applicable to the resource and provides a descriptive typology of the applicable common architectural styles associated with the contexts. This resource has not been previously evaluated for national, state, or local significance.

Solano County

Exploration and Settlement. The first recorded exploration of the region east of the San Francsico Bay by Europeans was the Fages-Crespí Exploration of 1772-1773. Captain Don Pedro Fages was sent to locate the harbor of San Francisco reported by earlier Spanish mariners unable to conclusively find the harbor due to heavy coastal fogs. Additionally, Fages reconnoitered, described, and mapped lands east of San Francisco Bay. Fages accompanied Franciscan missionary and explorer Juan Crespí, six leather-jacketed soldiers (solados de cuera), and servants. Fages departed from the Presidio of Monterey and proceeded north through the Santa Clara Valley to the East Bay hills, and north and east through the San Ramon Valley to the Carquinez Strait whereupon the party turned south and returned to Monterey via the Santa Clara Valley (Milliken 1995:36-37).

Nearly forty years later, the first direct Spanish incursion in what would become Solano County occurred in May 1810, when Lieutenant Gabriel Moraga led a military raid against Native Americans as retribution for their attacks against Spanish settlements and kidnapping mission Indians. “Moraga’s contingent traveled across what is now Contra Costa County to the Carquinez Strait, where they were met by a Spanish ship which ferried them across the narrow passage” (Gerike, Goetter, Greenwald, 2009; Central Solano County Cultural Heritage Commission, 1977:17). After Moraga’s crossed the Carquinez, the Spanish “rapidly increased their missionary and exploratory activity in the North Bay Area” (Ibid.). Mexico declared its independence from Spain in 1821, after which the republican ethos of the newly formed Mexican state favored secular growth over ecclesiastical.

The first phase of determined European exploration of the area that was to become Solano County began in the early 1840s, led by families arriving from Mexico. The fertile soil, ample water, and vast grazing lands proved ideal for settlement. The earliest pioneer of the area was Jose Armijo, who obtained a 13,000-acre land grant in the northeastern Suisun Valley, the southern portion of Lagoon Valley. Granted *Rancho Tolenas* in March 1839, Armijo established a cattle ranch and constructed a temporary home northwest of present day Fairfield within one year. The ranchos experienced little change during the 1840s and the families continued to prosper.

The discovery of gold at Coloma, east of Sacramento, in January 1848 ushered in the Gold Rush, which brought tens of thousands of mostly young, single men to California to work the placers. When the surface placers played out, many former miners turned to more conventional forms of economic activity such as agriculture, lumbering, animal husbandry, manufacturing, carpentry, and other services. Following the ratification of the Treaty of Guadalupe Hidalgo, many communities formed on rancho lands by boosters and land promoters competing for settlers, commercial investment and development, and financial viability. Solano was one of the original 27 counties formed following California’s admission to the Union in 1850 (Coy 1973:91-93; Munro-Fraser 1882:190-204). I

At the time of its establishment in 1850, Solano County comprised over 500,000 acres, and, unlike the rancho lands, the vast majority of the county was held as public land by the federal government. Like most California ranchos during the mid to late 19th century, livestock and wheat production were the principal economic products in the county until the 1880s. Sheep were the primary focus, followed by cattle, hogs, and horses. Though livestock in the county increased in the 1850s, by the late 1860s, Solano County was one of the leading regions in the state in wheat production.

B10. Significance (continued)

With the completion of the California Pacific Railroad (CPRR) through Elmira in 1868, located approximately 5.6-miles northeast of the segment of channelized Union Creek, and the Vaca Valley and Clear Lake Railroad, which linked the CPRR to Vacaville one year later, there was no longer a need to haul crops to Suisun City for shipment by water. While the railroad sped up transit times, it also cost farmers and ranchers more to ship via the railroad. By the 1880s, hampered by a rise in transportation costs and increased competition, the wheat industry in Solano County was on the decline. Subsequently, Solano County farmers turned to other crops, most of which, like vineyards and row crops, required irrigation (Gerike, Goetter, and Greenwald 2009).

This key transportation route spurred the purchase of land in the area for commercial fruit and vegetable farming. The construction of two major rail lines by 1870 broadened the market even further by allowing shipment of fruit and vegetables across the United States (Noske 2007). By the 1890s, Vaca Valley and the foothills of the Vaca Mountains were covered with orchards encompassing almost all of the available non-irrigated land. Peaches, apricots, table grapes, and cherries became the most important and popular crops of the area. Flooding, droughts, and overuse of soil all contributed to the decline of the orchards once filled with peaches, apricots, apples, and cherries. Many of these orchards shifted to plums and prunes. The dried fruit industry took over and continued through World War I (Limbaugh and Payne 2008).

After World War I, overproduction for the war effort and rising competition led to a slump in the Vacaville fruit district, which was exacerbated by soil depletion and erosion. Water from local drainages, along with heavy rains in the early years, allowed for the continuation of the prosperous non-irrigated fruit crops in the district, but four years of drought around the turn of the century reduced fruit production by half. Local growers turned to specialized crops, particularly plums and prunes. By the 1920s, three quarters of the orchards in the district were planted in these two crops and only a small amount of orchards was devoted to cherries, peaches, grapes, apricots, and pears (Limbaugh and Payne 1978).

The Great Depression of the 1930s brought an even greater decline in the local agricultural industry. With steep competition from plum growers in Kern County and high production expenses, local shippers and growers lost substantial amounts of money and many were forced to close their businesses. As fruit production declined, the local economy began to diversify with the arrival of new industry in the area. One of the largest companies to move to north Vacaville was Basic Vegetable Product, which specialized in the mass production of dried vegetables and employed a thousand local workers. To the south of Vacaville, Fairfield-Suisun Air Base (Travis Air Force Base) was established in 1942. The Base was initially intended to station attack bombers for the Fourth Air Force and then transferred to Air Transport Command to become a major military airport and supply transport facility to the Pacific. By the end of World War II, the Base was the largest aerial port on the west coast and changed to long-range reconnaissance and strategic bombing missions following the Strategic Air Command assumed command of the base in 1949 (Limbaugh and Payne 1978; Ruhge 2005:989).

During World War II, the region rebounded dramatically (Noske 2007). Conveniently located along a major highway, with its proximity to the Bay Area and military installations, it provided a favorable community for war workers. With this upsurge in the economy and population came a wartime housing shortage that spurred growth in the region (Gerike, Goetter, and Greenwald, 2009). Orchards gave way to urban expansion; by the end of the war, the fruit industry dwindled to a small percentage of the overall agricultural production of the county. Freeway reconstruction and expansion in the second half of the 20th century led to greater suburban development, including the construction of thousands of new homes, business parks, warehouses, and medical offices (California Department of Finance 2009).

B10. Significance (continued)

Union Creek. The original date of construction is unclear, but this segment was in place by 1953 (USGS). This features presence by 1953 corresponds to the establishment and later expansions of Travis AFB during the Korean Conflict and the wider Cold War. The depiction of Union Creek does not show on the earlier 15-minute topographic maps of Vacaville, Elmira, and Fairfield. This is likely due to Union Creek's status as a minor secondary or intermittent creek (USGS, 1917). Later USGS topographic maps depict Union Creek emerging northeast of a peak in the Cement Hills, east of Vacaville (USGS, 1969, 1973, 1980). The creek runs downhill to the south and east and southwest of Vacaville towards Travis AFB. At Cordero Junction, north of the segment evaluated here, the creek branches into two alignments, one is channelized that carries water south and west around Travis AFB and the other branch carries water south and west around Travis AFB. The likely purpose of this channelized water conveyance feature is to provide extra capacity by diverting water from Union Creek during high flow events to minimize water damage to Travis AFB.

The name of Union Creek was not determined, however the use of "Union" as a placename is the most prevalent of "the many idealistic and patriotic names for places in the United States, *Union* is the most popular" (Gudde, 1998:407). The use of the terms spread during the mid-19th century as the conflict regarding slave and free states intensified, culminating in the Civil War. Channelizing Union Creek was likely undertaken to safely route water flows around the critical areas at Travis AFB. This segment of channelized Union Creek is presently a component of the base's infrastructure that was in place by 1953 and continues in operation. Since initial construction, Union Creek has been rebuilt, periodically cleaned out, and maintained to carry water.

ARCHITECTURAL CONTEXT

Irrigation Canals. This approximately 1,650-foot segment of channelized Union Creek is part of an open, unlined earthen water conveyance features built circa 1950. According to the *Water Conveyance Systems in California* prepared by Caltrans and Davis-based JRP historical Consulting Services, the open canal is: "Perhaps the most common canal type in California is the irrigation canal. These conduits carry water for pastures, row crops, orchards, and vineyards, and vary widely in size, shape, and construction materials. As with other canals, they are typically part of a larger system. Beginning from a storage dam or diversion weir, water is diverted through a main canal, into laterals, and then through outlet gates or other control structures into individual farm distribution ditches" (Caltrans and JRP, 2000:86).

The open irrigation canal is likely one of the oldest and ongoing examples of human technology. Developed in ancient Mesopotamia, Egypt, and other areas of the ancient world where humans transitioned from nomadic life to a more sedentary one of cultivating crops and raising livestock. Seeking to continue a trend of ever-higher productivity in arid climates, the open unlined canal was later redesigned "to minimize losses due to evaporation and seepage. In California, hundreds of miles of previously earthen ditches have been lined with some less permeable surface or placed in pipe. Lined canals can also carry more water by moving it faster, and the lining can prevent scour of banks and bottom from running water at high velocity" (Ibid.). These modifications likely result in the substantial modification of these ubiquitous water features via routine maintenance and repairs.

Over a canal's length, a drop in elevation is required for gravity to efficiently move water thereby avoiding investment in equipment. However, when the underlying topography results in an elevation change that is steeper than ideal for gravity flow, (i.e., about 10 feet per mile), other passive flow control structures are installed to reduce velocity and dissipate energy to prevent scouring of the channel and banks (Caltrans and JRP, 2000:88).

B10. Significance (continued)

ELIGIBILITY EVALUATION

California Register of Historical Resources Eligibility Evaluation

California Register Criterion 1: Is it associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage?

Background research indicates this segment of water conveyance feature has a direct association with the development of water conveyance infrastructure development in Travis AFB, Solano County, a pattern of events that made a significant contribution to the broad patterns of the history of Solano County and California. Background research indicates that this segment of channelized Union Creek was a stem canal that was secondary to the main branch of Union Creek, which carries water through Travis AFB and beyond to Suisun Bay. As an unlined earthen canal, this segment of channelized Union Creek is a typical example of water conveyance infrastructure common in Solano County, the San Francisco Bay Area, and California. Background research did not indicate this water conveyance feature is of a higher associative stature. Channelized Union Creek, or other segments of it, may be over 75 years old, however age itself is not an exceptional characteristic as much of the extant water conveyance infrastructure network in Solano County was built in the late-19th and early-20th century. Moreover, this segment of channelized Union Creek is a secondary water conveyance feature and its potential to have significantly contributed to the development of Travis AFB, Solano County, or California was limited. For these reasons, this segment of channelized Union Creek does not appear eligible for inclusion in the CRHR under Criterion 1.

California Register Criterion 2: Is it associated with the lives of persons important in our past?

Background research did not identify a builder or person(s) responsible for designing or constructing the Vineyard Shopping Center. For these reasons, this resource does not appear to eligible for inclusion in the CRHR under Criterion 2.

California Register Criterion 3: Does it embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values?

Background research and field survey indicates this segment of channelized Union Creek is an open, unlined earthen canal. Its associative engineering elements are examples of a common construction type and materials used in water conveyance infrastructure in rural areas throughout Solano County, the San Francisco Bay Area, and statewide. The entire canal does not embody the distinctive characteristics of a type, period, or method of construction, nor does it represent the work of a highly creative individual or possess high artistic values. For these reasons, this resource does not appear eligible for inclusion in the CRHR under Criterion 3.

California Register Criterion 4: Has it yielded, or may it be likely to yield, information important in prehistory or history?

This criterion is usually used to evaluate the potential for archaeological deposits to contain information important in understanding the past lifeways of Solano County's early historic-period and precontact inhabitants. Its application to architecture and the built environment is less common in eligibility evaluations due to the prevalence of multiple media that normally thoroughly document the form, materials, and design of a given building type. This segment of channelized Union Creek is a typical example of an open, unlined earthen canal is a water conveyance resource type common throughout California. It is unlikely to yield important data regarding original engineering or architectural designs or techniques that would help us understand the construction or irrigation infrastructure development practices of the day. For these reasons, this resource does not appear to eligible for inclusion in the CRHR under Criterion 4.

B10. Significance (continued)

ELIGIBILITY EVALUATION

California Register of Historical Resources Eligibility Evaluation (continued)

Integrity Assessment. In addition to being significant under one or more criteria, a resource must retain enough of its historic character and appearance to be recognizable as an historical resource and retain integrity, which is defined as the ability of a resource to convey the reasons for its significance (CCR Title 14 Section 4852(c)). There are seven aspects of integrity used to measure a property's ability to convey its significance: *location*, *design*, *setting*, *materials*, *workmanship*, *feeling*, and *association* (National Park Service 1997:45). Historical integrity refers to a resource's ability to convey its significant historical associations. Integrity is a critical component of historical resources that are listed or eligible for inclusion in a national, state, or local register of historical resources. Integrity is assessed only after significance is established. The segment of channelized Union Creek does not appear significant under any criteria and is not eligible for listing in the CRHR; therefore, its integrity was not assessed.

Conclusion. This approximately 1,650-foot segment of channelized Union Creek is associated with the development of Travis AFB and Solano County's growth in the mid-20th century. However, the association of this segment of water conveyance infrastructure with this pattern of events does not appear of high, relative importance with similar other examples of water conveyance infrastructure as regards the history of Travis AFB, Solano County, California or the nation. For these reasons, this approximately 1,650-foot segment of channelized Union Creek does not qualify as a "historical resource" for the purposes of CEQA (as defined by Public Resources Code Section 21084.1).

P5a. Photograph (continued)



Channelized Union Creek. View north from Forbes Street. LSA photograph 4/19/25.



Channelized Union Creek. View southwest from De Ronde Road. LSA photograph 4/19/25.

P5a. Photograph (continued)



Channelized Union Creek. View north from Air Foarce Parkway. LSA photograph 4/19/25.



Channelized Union Creek. View south from Markeley Land. Note: context image of larger portion of segment. Segment subject to evaluation in far distance. LSA photograph 4/19/25.

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