



Alameda County Transportation Commission

INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION

Alameda CTC Rail Safety Enhancement Project

Project Location: Intersections at 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue (APN: 29th Avenue - 25-680-1-6, Fruitvale Avenue - 25-680-6-1/ 33-2186-6/ 33-2186-5-1, 37th Avenue - 33-2180-2-1/ 33-2169-17/ 33-2179-18/ 33-2179-17/ 33-2169-16-1, 50th Avenue - 34-2341-10/ 34-2287-22/ 34-2293-8-3/ 34-2293-2-5/ 34-2293-2-9), Oakland, California.

General Plan Designation: Mixed Housing Type Residential, Community Commercial, Regional Commercial, Housing and Business Mix, General Industrial, General Industry and Transportation

Project Description: The project consists of rail safety improvements to existing at-grade rail crossings in the City of Oakland in Alameda County. The improvements are designed to increase safety for motorists and pedestrians. Currently the four crossings consist of signal arms and railroad crossing signs, and no other safety features. Safety improvements would include restricting access to UPRR tracks, improving signage, accessibility improvements, installation new security gates/fencing, medians, pavement markings, roadside signs, ADA detectable pavers, warning devices, and "No Trespassing" signs.

April 2023

PREPARED FOR:

Alameda County Transportation Commission

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INITIAL STUDY

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List of Acronyms and Abbreviations

AB	Assembly Bill
Alameda CTC	Alameda County Transportation Commission
APE	Area of Potential Affect
APN	Assessor Parcel Number
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
CFR	Code of Federal Regulations
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CESA	California Endangered Species Act
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
City	City of Oakland
CNEL	Community Noise Equivalent Level
CPUC	California Public Utilities Commission
CRHP	California Register of Historic Places
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted decibel scale

DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
FEMA	Federal Emergency Management System
FIRM	Flood Insurance Rate Map
EBMUD	East Bay Municipal Utility District
EIR	Environmental Impact Report
FHSZ	Fire Hazard Severity Zones
GHG	Greenhouse gas
HASP	Health and Safety Plan
IRP	integrated resource plans
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
NFIP	National Flood Insurance Program
NO ₂	nitrogen dioxide
O ₃	Ground-level Ozone
OFD	Oakland Fire Department
OPD	Oakland Police Department
PM _{2.5}	Fine Particulate Matter
PM ₁₀	Coarse Particulate Matter
PPV	Peak Particle Velocity
L _{dn}	Day-Night Noise Level
L _{eq}	hourly equivalent sound level
MBTA	Migratory Bird Treaty Act
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program

NRHP	National Register of Historic Places
NO _x	nitrogen oxides
PG&E	Pacific Gas and Electric
PM	particulate matter
PRC	California Public Resource Code
ROG	reactive organic gases
RWQCB	Bay Regional Water Quality Control Board
SLF	Sacred Lands File
SB	Senate Bill
SMARA	Surface Mining and Reclamation Act
SPHO	State Historic Preservation Office
SPRR	Southern Pacific Railroad
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
U.S. EPA	United States Environmental Protection Agency
UPRR	Union Pacific Railroad
USFW	United States Fish and Wildlife
USGS	United States Geological Survey
VMT	vehicle miles travelled

1 INITIAL STUDY

1. Introduction

An application for proposed safety improvements at four existing at-grade rail crossings in the City of Oakland has been submitted to the Oakland Planning and Development Department for discretionary review. The Alameda County Transportation Commission (Alameda CTC), as Lead Agency, has reviewed the proposed safety improvements at four existing at-grade rail crossings in the City of Oakland and determined that the project is subject to the California Environmental Quality Act (CEQA).

This Initial Study evaluates the potential environmental effects that could result from the construction and operation of the proposed Project. This Initial Study has been prepared in accordance with CEQA (Public Resources Code §21000 et seq.), and the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.). The Alameda CTC uses Appendix G of the State CEQA Guidelines as the thresholds of significance unless another threshold of significance is expressly identified in the document.

Based on the analysis provided within this Initial Study, the Alameda CTC has concluded that, with incorporation of the identified mitigation as agreed to by the Applicant, the Project would not result in significant impacts on the environment and, therefore, that the preparation of an Initial Study/Mitigated Negative Declaration is appropriate under CEQA. This Initial Study and Mitigated Negative Declaration (IS/MND) is intended as an informational document and is ultimately required to be adopted by the decision-making body prior to project approval by the City of Oakland. Because it is an informational document, the project's effects are shown both without and with incorporation of the mitigation the Applicant has agreed to incorporate into the Project.

1.1 Purpose of an Initial Study

CEQA was enacted in 1970 with several basic purposes, including: (1) to inform governmental decision makers and the public about the potential significant environmental effects of proposed projects; (2) to identify ways that environmental damage can be avoided or significantly reduced; (3) to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures; and (4) to disclose to the public the reasons behind a project's approval even if significant environmental effects are anticipated.

An Initial Study is a preliminary analysis conducted by the Lead Agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the Lead Agency shall prepare a Negative Declaration. If the Initial Study identifies potentially significant effects but that revisions have been made by or agreed to by the applicant that would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, a Mitigated Negative Declaration is appropriate. If the Initial Study

concludes that neither a Negative Declaration nor Mitigated Negative Declaration is appropriate, an EIR is normally required.¹

1.2 Organization of this Initial Study

This Initial Study is organized into sections as follows:

1. Introduction

Describes the purpose and content of the Initial Study and provides an overview of the CEQA process.

2. Executive Summary

Provides Project information, identifies key areas of environmental concern, and includes a determination whether the project may have a significant effect on the environment.

3. Project Description

Provides a description of the environmental setting and the Project, including project characteristics and a list of discretionary actions.

4. Evaluation of Environmental Impacts

Contains the completed Initial Study Checklist and discussion of the environmental factors that would be potentially affected by the Project.

1.3 CEQA Process

In compliance with the State CEQA Guidelines, the Alameda CTC, as the Lead Agency for the project, will provide opportunities for the public to participate in the environmental review process. As described below, throughout the CEQA process, efforts will be made to inform, contact, and solicit input on the project from various government agencies and the general public, including stakeholders and other interested parties.

Initial Study

At the onset of the environmental review process, Alameda CTC prepared this Initial Study to determine if the proposed Project may have a significant effect on the environment. This Initial Study determined that the proposed Project could have potentially significant environmental impacts, but that the identified mitigation measures which the Applicant agreed to incorporate into the Project would avoid or reduce such impacts to a point where clearly no significant impacts would occur.

A Notice of Intent to Adopt a Mitigated Negative Declaration (MND) or Negative Declaration (ND) is provided to inform the general public, responsible agencies, trustee agencies, and the county clerk of the availability of the document and the locations where the document can be reviewed. A 20-day review period (or 30-day review period when the document is submitted to the State Clearinghouse for state agency review) is identified to allow the public and agencies to review the document. The notice is

¹ State CEQA Guidelines Section 15063(b)(1) identifies the following three options for the Lead Agency when there is substantial evidence that the project may cause a significant effect on the environment: "(A) Prepare an EIR, or (B) Use a previously prepared EIR which the Lead Agency determines would adequately analyze the project at hand, or (C) Determine, pursuant to a program EIR, tiering, or another appropriate process, which of a project's effects were adequately examined by an earlier EIR or negative declaration.

mailed to any interested parties and is noticed to the public through publication in a newspaper of general circulation.

The decision-making body then considers the Mitigated Negative Declaration or Negative Declaration, together with any comments received during the public review process, and may adopt the MND or ND and approve the project. In addition, when approving a project for which an MND or ND has been prepared, the decision-making body must find that there is no substantial evidence that the project will have a significant effect on the environment, and that the ND or MND reflects the lead agency's independent judgement and analysis. When adopting an MND, the lead agency must also adopt a mitigation monitoring and reporting program to ensure that all proposed mitigation measures are implemented to mitigate or avoid significant environmental effects.

2 Executive Summary

Project Title	Alameda CTC Rail Safety Enhancement Program
Lead agency contact and address	Alameda County Transportation Commission 1111 Broadway #800, Oakland, CA 94607
Staff Contact	Jhay Delos Reyes
Phone Number	510-208-7469
Email Address	jdelosreyes@alamedactc.org
Project Location	Intersections at 29 th Avenue, Fruitvale Avenue, 37 th Avenue, and 50 th Avenue, Oakland, California
Property Owner/Project Sponsor	City of Oakland/Alameda County Transportation Commission
Property APN	29 th Avenue - 25-680-1-6/ Fruitvale Avenue - 25-680-6-1/ 33-2186-6/ 33-2186-5-1 37 th Avenue - 33-2180-2-1/ 33-2169-17/ 33-2179-18/ 33-2179-17/ 33-2169-16-1 50 th Avenue - 34-2341-10/ 34-2287-22/ 34-2293-8-3/ 34-2293-2-5/ 34-2293-2-9
General Plan Designation	Mixed Housing Type Residential, Community Commercial, Regional Commercial, Housing and Business Mix, General Industry and Transportation
Zoning	Industrial, General (M-30), Housing and Business Mix (HBX-1 and HBX-2), Community Commercial (CC-1), Commercial Neighborhood Center (CN-3).
Council District	Noel Gallo-District 5
Applicant	Alameda County Transportation Commission
Address	1111 Broadway #800, Oakland, CA 94607
Phone Number	(510) 208-7400

2.1 Project Overview

The project would include safety improvements to four existing at-grade rail crossings on the intersections at 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue in the City of Oakland in Alameda County. The improvements are designed to increase safety for motorists and pedestrians. Currently the 29th Avenue and Fruitvale Avenue crossings are two-lane roadways and the 37th Avenue and 50th Avenue crossings have one lane of travel in each direction. All four crossings have single arm gates in each direction of traffic. Site conditions vary between crossings. Continuous sidewalks extend along 29th Avenue on each side. Parking lots are located immediately north of the Fruitvale Avenue

crossing, with vacant parcels to the south. Continuous sidewalks extend along Fruitvale Avenue on each side with Class II bicycle lanes striped on both sides. Landscaping associated with Interstate (I-) 880 (Nimitz Freeway) is located south of the 37th Avenue crossing. Sidewalks are present north of the UPRR tracks along 37th Avenue, but no pedestrian facilities extend across the tracks. Sidewalks are present south of the UPRR tracks along 50th Avenue, but no pedestrian facilities extend across the tracks. Safety improvements at both crossings include installation new security gates/fencing, medians, pavement markings, pavement, roadside signs, warning devices, and “No Trespassing” signs.

2.2 Environmental Setting

The project site consists of four existing at-grade rail crossings in the City of Oakland in Alameda County. The crossings are in the same general area of east Oakland in predominantly business, commercial, and light industrial areas. The crossings are along Union Pacific Railroad (UPRR) tracks where UPRR tracks intersect with local streets. The crossings are listed in Table 1 below and shown in Figure 1.

2.3 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 included in Section 4, Evaluation of Environmental Impacts.

- | | |
|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Biological Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology & Soils | <input type="checkbox"/> Greenhouse Gas Emissions |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise & Vibration | <input type="checkbox"/> Population & Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Parks & Recreation |
| <input type="checkbox"/> Transportation & Circulation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Wildfire |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

All impacts would be reduced to less-than-significant levels with adherence to applicable policies, and regulations, and incorporation of best management practices (BMPs) and mitigation measures discussed in Section 4, Evaluation of Environmental Impacts.

3 Project Description

3.1 Project Location and Setting

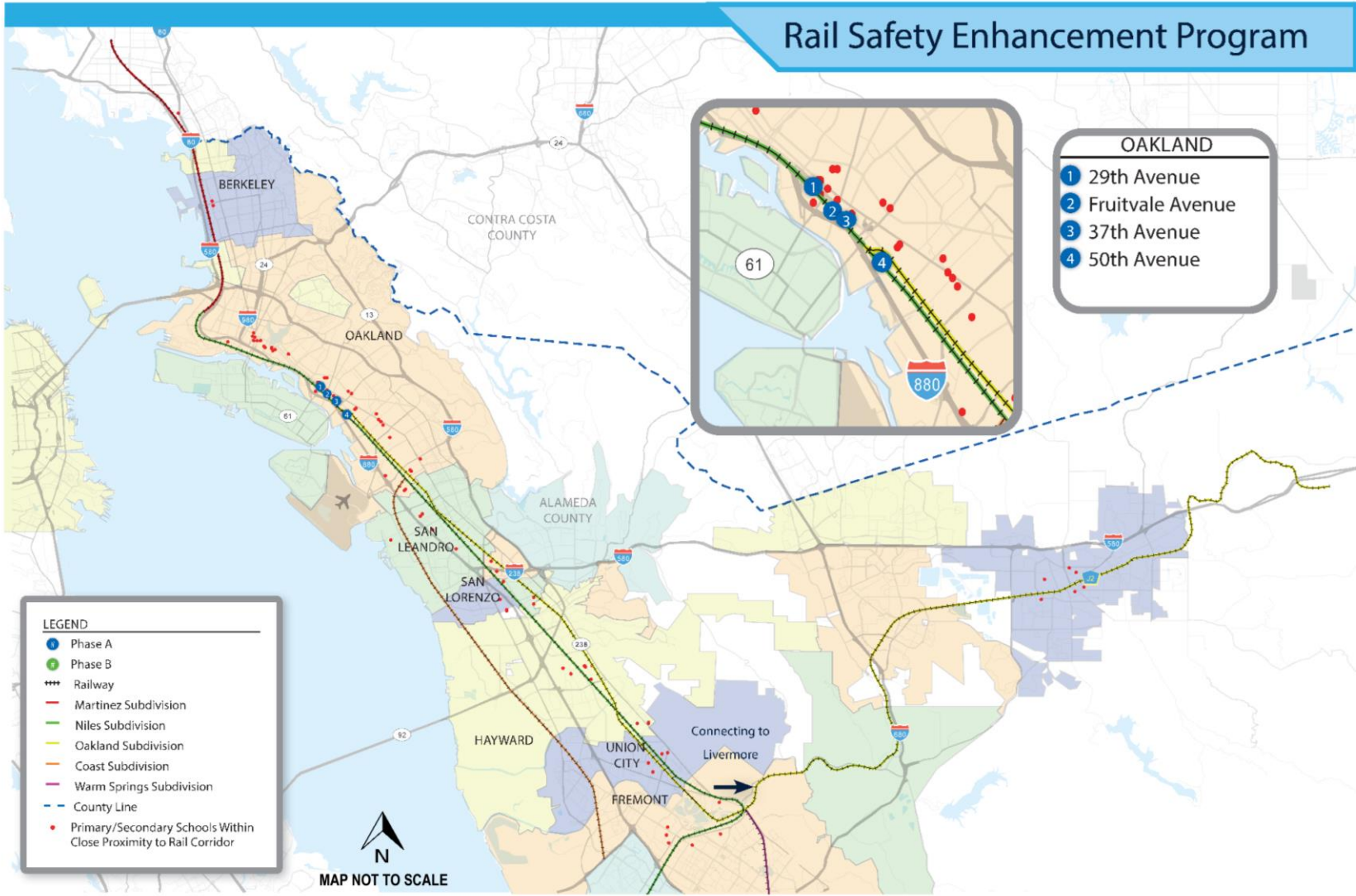
The project site consists of four existing at-grade UPRR tracks where UPRR tracks intersect with local streets in the City of Oakland in California. Alameda County Transportation Commission (Alameda CTC) is the lead agency under the California Environmental Quality Act (CEQA). All four crossings are in the same general area of east Oakland in predominantly business, commercial, and light industrial areas. The 29th Avenue and 37th Avenue crossings are located near residential areas. Each of the crossings is listed from north to south in Table 1 below, noting the local street intersections. The Map ID number corresponds to crossing location shown on Figure 1.

Table 1 Crossing Locations

Jurisdiction	Intersection	Map ID
Oakland	29 th Avenue	1
	Fruitvale Avenue	2
	37 th Avenue	3
	50 th Avenue	4

Source: Alameda CTC, 2022

Rail Safety Enhancement Program



Source: Kimley-Horn, 2022

Figure 1: Project Site Map

3.2 Site Conditions

The City of Oakland General Plan (Oakland General Plan) land use designations surrounding the crossings vary for each crossing. General Plan land use designations surrounding the 29th Avenue crossing include Regional Commercial, Community Commercial, Institutional, Mixed Housing Type Residential, and Business Mix. Land use designations surrounding the Fruitvale crossing include Mixed Housing Type Residential, Neighborhood Center Mixed Use, Community Commercial, Institutional, and Urban Park and Open Space. Land use designations surrounding the 37th Avenue crossing are primarily Housing and Business and Mixed Housing Type Residential. Land use designations surrounding the 50th Avenue crossing are primarily General Industrial and Business Mix.

Similar to the Oakland General Plan-designated land uses, zoning designations surrounding the crossings also vary. Zoning surrounding the 29th Avenue crossing includes General Industrial (M-30), Community (CC-1, CC-2), Neighborhood Center (CN-4), and Commercial Industrial Mix 2 (CIX-2). Areas surrounding the Fruitvale Avenue crossing are zoned Neighborhood Center (CN-3), Research (S-15), Housing and Business Mix (HBX-1, HBX-2), Community (CC-1), and General Industrial (M-30). Zoning surrounding the 37th Avenue crossing is primarily Housing and Business Mix (HBX-1 and HBX-2 zoning). Zoning surrounding the 50th Avenue crossing is primarily Industrial General (IG), and Commercial Industrial Mix 2 (CIX-2).

Existing development on parcels adjacent to the rail crossings ranges from commercial and industrial at Fruitvale Avenue and 50th Avenue to commercial and residential at 37th Avenue, and commercial and school at 29th Avenue. Schools are located within 0.25 mile (i.e., 1,300 feet) of the project site. Schools located near the 29th Avenue crossing include Latitude High School / Epic Middle School (approximately 100 feet east), as noted in Table 2. Think College Now Elementary School located approximately 700 feet northwest from the 29th Avenue crossing, and Ascend Elementary School, located approximately 900 feet northeast from the 37th Avenue crossing. Single-family homes are located near the 37th Avenue crossing approximately 100 feet to the north and west. Multi-family homes are located approximately 300 feet from 29th avenue. Additionally, residential homes are located approximately 300 feet from 50th avenue. Commercial and industrial uses immediately surround the Fruitvale Avenue and 50th Avenue crossings.

The four crossings consist of entirely developed land. The ground surrounding the existing crossings is predominantly impervious except for the semi-pervious gravel shoulder next to UPRR tracks. Site conditions vary between crossings. The 29th Avenue and Fruitvale Avenue crossings take place on major arterials while the 37th Avenue and 50th Avenue crossings are along smaller two-lane streets. Each crossing generally includes a vehicular gate for each direction of travel, warning device, concrete crossing panels, and street lighting. Existing conditions at each crossing location are described in detail in Table 2 E.

Table 2 Existing Conditions

Intersection	Description	Map ID
29 th Avenue	29 th Avenue extends in a northeast direction through this crossing with two lanes of travel in each direction. Education for Change Latitude High School is located approximately 100 feet east. Continuous sidewalks extend along 29 th Avenue on each side. There are single-arm gates in each direction of traffic.	1
Fruitvale Avenue	Fruitvale Avenue extends in a northeast direction through this crossing with two lanes of travel in each direction. Parking lots are located immediately north of this crossing, with vacant parcels to the south. Continuous sidewalks extend along Fruitvale Avenue on each side with Class II bicycle lanes striped on both sides. There are single-arm gates in each direction of traffic.	2
37 th Avenue	37 th Avenue extends in a northeast direction through this crossing with one lane of travel in each direction. Landscaping associated with Interstate 880 (Nimitz Freeway) is located south of the crossing. Sidewalks are present north of the UPRR tracks along 37 th Avenue, but no pedestrian facilities extend across the tracks. There are single-arm gates in each direction of traffic.	3
50 th Avenue	50 th Avenue extends in a northeast direction through this crossing with one lane of travel in each direction. Sidewalks are present south of the UPRR tracks along 50 th Avenue, but no pedestrian facilities extend across the tracks. There are single-arm gates in each direction of traffic.	4

Source: Circlepoint, 2022

Figure 2 through Figure 5 shows the existing conditions at each crossing. Figure 2 is taken from the south side of the crossing. Figure 3 through Figure 5 are each taken from the north side of the crossing. Figure 6 depicts the typical improvements proposed at each crossing in the program for illustrative purposes.



Figure 2: 29th Avenue Crossing



Figure 3: Fruitvale Avenue Crossing



Figure 4: 37th Avenue Crossing

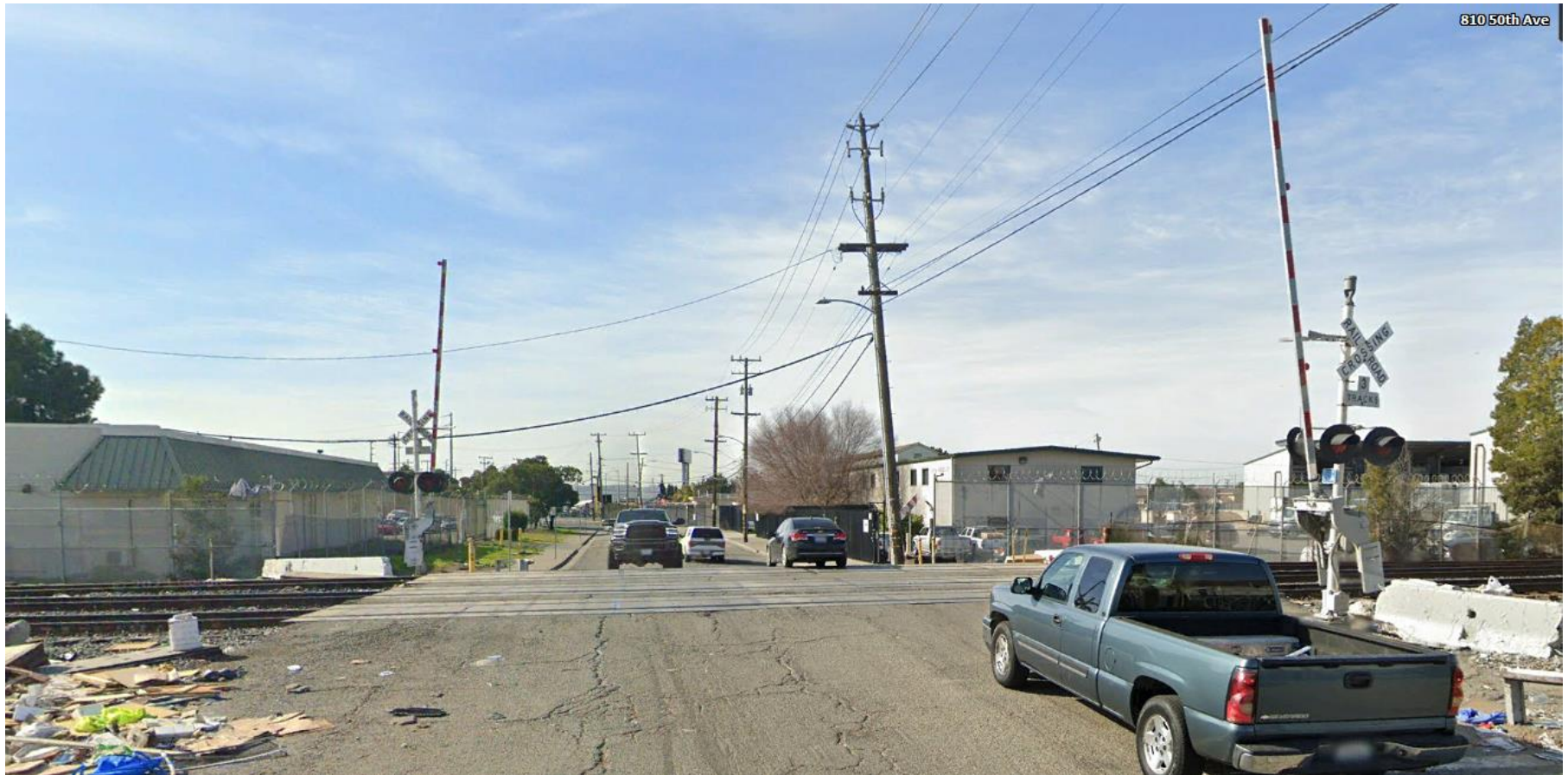


Figure 5: 50th Avenue Crossing

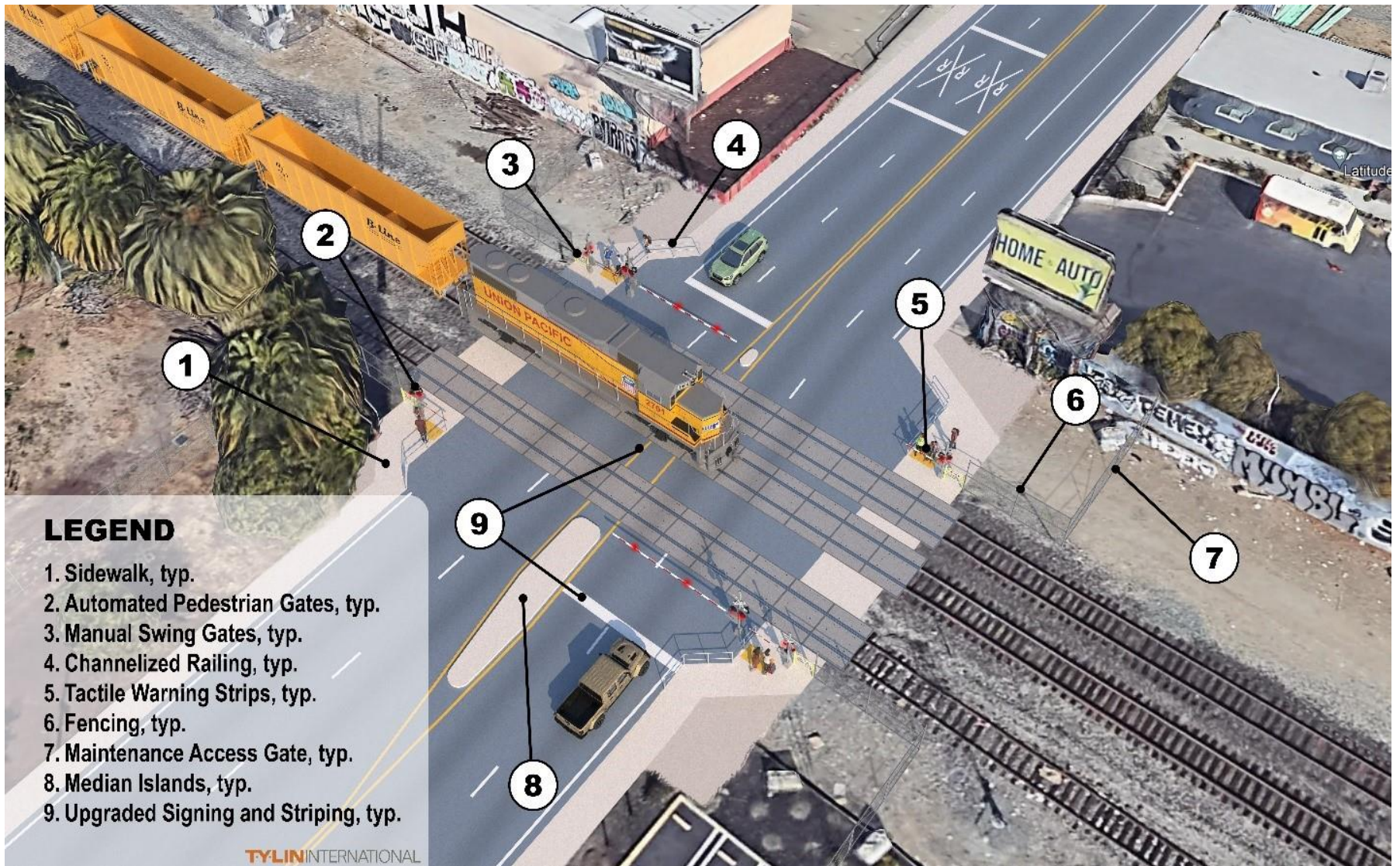


Figure 6: Illustration of Typical Improvements

3.3 Project Components

The project consists of rail safety improvements to existing at-grade rail crossings. The improvements are designed to increase safety for motorists and pedestrians. This includes restricting access to UPRR tracks, improving signage, accessibility improvements, and other safety features. The proposed safety improvements are listed in Table 3 P.

Table 3 Proposed Safety Improvements

Intersection	Description	Excavation/Grading	Map ID
29 th Avenue	<p>The following improvements are proposed:</p> <ul style="list-style-type: none"> Remove portions of existing pavement/concrete Remove existing overhead catenary system pole Install new security access gates/fencing, medians, pavement markings, pavement, roadside signs, ADA detectable pavers, warning devices, and “No Trespassing” signs 	Minor excavation and grading would be required to construct new pavement and curbs and gutters on the project site, to conform new sidewalks to existing, and to create new medians.	1
Fruitvale Avenue	<p>The following improvements are proposed:</p> <ul style="list-style-type: none"> Remove portions of existing sidewalk and existing pedestrian crossing light Install new pavement markings (including dynamic envelope markings), pavement, security access gates/fencing, delineators, warning devices, and “No Trespassing” signs 	Minor grading would be required to conform new sidewalks to existing.	2
37 th Avenue	<p>The following improvements are proposed:</p> <ul style="list-style-type: none"> Remove portions of existing pavement/concrete Replace existing damaged fence Install new security access gates/fencing, medians, pavement markings, roadside signs, ADA detectable pavers, warning devices, and “No Trespassing” and “No Parking” signs 	Minor excavation and grading would be required to construct curbs and gutters on the project site, to conform new sidewalks to existing, and to create new medians.	3
50 th Avenue	<p>The following improvements are proposed:</p> <ul style="list-style-type: none"> Remove portions of existing pavement/concrete and regrade surface Remove existing guard rail and signal foundation Install new headwall, curb and gutter, and drainage pipe Install new pavement markings, pavement, security access gates/fencing, warning devices, and “No Trespassing” signs 	Minor excavation and grading would be required to construct new pavement and regrade surface on the project site, install a new headwall, curbs and gutters, and drainage pipe, and to conform new sidewalks to existing.	4

Source: Alameda CTC, 2022

3.4 Construction

Construction of the project is anticipated to take approximately 12 months, beginning in the third quarter of 2023 and concluding in the third quarter of 2024. Construction would occur in one phase with distinct activities/sub-phases (i.e., demolition, grading, paving).

Construction at each crossing will generally include:

- Temporary closure of the crossing to vehicular traffic with an appropriate detour.
- Removal of outdated or non-functioning crossing control equipment, fencing, signage, pavement, and other materials.
- Installation of new fencing, crossing control equipment, signage, sidewalks and pavement, and other safety features.

The crossings each have unique elements or requirements for their construction:

- 29th Avenue – Construct new median, curb and gutter, and pavement along 29th Avenue. An existing overhead catenary system pole would be removed adjacent to the southbound track.
- Fruitvale Avenue – Remove existing sidewalk north and south of Fruitvale Avenue. Dynamic envelope markings would be installed on both sides of tracks.
- 37th Avenue – Construct new median and curbs and gutters along 37th Avenue. An existing damaged fence along the UPRR ROW on the southbound track will be replaced.
- 50th Avenue– Construct new curbs and gutters along 50th Avenue. A new headwall and drainage pipe would be installed, and surface regrading would occur adjacent to the northbound track.

3.5 Operation

During operation, the improved crossings would function similar to existing conditions. Vehicular traffic would be able to use the crossings as they do under existing conditions, but with improved safety. Operation of the project would require electricity for single-arm pedestrian gates in each direction of traffic but otherwise would not require the use of utilities. Operation of the project would not change the frequency or speed of existing trains along UPRR tracks or affect the volume of vehicles using the crossing. The improvements may provide the groundwork for local agencies to pursue a Federal “quiet zone” designation, but this would be completed by the local agencies as a separate project. Therefore, operation of the project would not alter existing train noise levels.

3.6 Permits and Approvals

Required permits and approvals are listed in Table 4 P below. In addition, agreements for work within ROW for which UPRR has easements will be acquired prior to construction.

Table 4 Permits and Approvals

Permitting Agency	Permit/Approval	Timing
City of Oakland	Encroachment Permits for construction in city street ROW	Prior to ground disturbance

Source: Circlepoint, 2022

4 Evaluation of Environmental Impacts

This Initial Study evaluates impacts based on the CEQA Guidelines Appendix G Environmental Checklist:

- No Impact indicates that there is no impact.
- Less than Significant Impact indicates that, while there is some impact, the impact does not exceed identified thresholds.
- Less than Significant with Mitigation Incorporated indicates that a potentially significant and/or significant impact has been identified in the course of this analysis and mitigation measures have been provided to reduce a potentially significant impact and/or significant impact to a less-than-significant level.
- Significant Impact indicates that not all impacts have been reduced to less-than-significant and an Environmental Impact Report (EIR) will be required. As noted previously, mitigation measures developed for this project reduce any significant impacts to a less-than-significant level and an EIR will not be required.
- Section XVIII, Mandatory Findings, discusses cumulative impacts. Cumulative impacts are two or more individual effects, which when combined, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over time. If a significant cumulative impact is identified, the project's contribution to the significant cumulative impact is considered.

The environmental factors checked below would be potentially affected by the project, involving at least one impact that is a potentially significant or significant impact as indicated by the checklist on the following pages. Mitigation measures have been provided for each significant impact, reducing all to a less-than-significant level.

- | | |
|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Biological Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology & Soils | <input type="checkbox"/> Greenhouse Gas Emissions |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise & Vibration | <input type="checkbox"/> Population & Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Parks & Recreation |
| <input type="checkbox"/> Transportation & Circulation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Wildfire |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

4.1 Aesthetics

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized 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 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Oakland General Plan is the primary source for identifying and determining scenic vistas and scenic resources throughout the City. The Oakland General Plan does not identify any scenic vistas or scenic resources within the project site or scenic vistas that would be visible from the project site. The project site is not located near any natural or historic features that are considered scenic resources by the City.

The California Department of Transportation (Caltrans) Scenic Highway Program has designated Interstate 580 (I-580) as a scenic highway (between San Leandro and State Route 24) in the project vicinity. The I-580 designated scenic highway portion is approximately 1.7 miles northeast of the project site crossings.

Scenic viewsheds are also important factors to consider when analyzing the aesthetic character of a project site. While a scenic vista is typically a singular scene or view, scenic viewsheds are areas of particular scenic or historic value deemed worthy of preservation against development and other changes. According to the General Plan, the project site is not located within or near any scenic viewsheds.

The site is within a fully developed area of Oakland surrounded by commercial, residential, mixed use, and industrial developments. Buildings are generally multi-story contemporary office and industrial buildings set back from the street. Surface parking lots are frequent. Due to existing development, trees, urban infrastructure such as power lines, and slight topographical changes throughout the area, views are generally limited to one or two blocks in each direction when traveling on foot or in a vehicle. Distant ridgelines of the Oakland Hills can be viewed from each crossing; however, these views are partially obstructed by existing development.

Regulatory Setting

Local

Oakland General Plan

Various policies in the Open Space Conservation and Recreation element of the Oakland General Plan have been adopted for avoiding or mitigating visual impacts resulting from Project development within the City.² Based on a review of the General Plan, the following policies are determined to be applicable to the project:

- Policy OS-10.2* Minimize adverse visual impacts. Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities new vistas and scenic enhancement.
- Policy OS-10.2.1* Visual analysis for new development. On an ongoing basis, the Office of Planning Building will require visual analysis for new developments which could significantly impact views and vistas.

Impact Discussion

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

No Impact. The existing crossings are not located in or near any scenic vistas identified by the City. Additionally, existing views from the crossings are dominated by commercial, residential, and industrial buildings. Therefore, the project would not result in impacts to a scenic vista, and no mitigation is required.

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

No Impact. According to Caltrans' state scenic highway maps, the nearest designated or eligible scenic highway, Interstate 580, is about 1.7 miles from the existing crossings. Additionally, the project improvements would be confined to the existing rail crossings and would not include tall structures or substantial vertical features that could affect scenic views of the bay. The project would not obstruct views from other public viewpoints. Therefore, the project would not impact scenic resources, and no mitigation is required.

c) In nonurbanized 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 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. The project is located in an urbanized area and would require minor improvements at the four existing crossings to enhance safety. As discussed in Section 3.3 Project Components, improvements would include minor excavation and grading, new signs, street markings, security access gates, and new sidewalks. The existing crossings are surrounded by commercial, mixed-use residential, and general industrial uses which would not be altered by the project. While the crossings afford distant and partial views of the Oakland Hills, views are limited and obstructed by surrounding development. The project would not conflict with applicable zoning and other regulations governing scenic quality as no scenic vistas or view corridors are located near or adjacent to the existing

² City of Oakland, 1996. City of Oakland General Plan Open Space Conservation and Recreation Element, 1996. Available at: <https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf>. Accessed October 2022.

crossings. Therefore, the project would have a less-than-significant impact on the visual character and quality of the site and vicinity, and no mitigation is required.

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

Less than Significant. While there would be lights associated with the project, such as street lighting and warning lights, these would be similar to existing lighting features onsite. Therefore, the project would not affect day or nighttime views in the area. The impact would be less than significant, and no mitigation measures are required.

4.2 Agriculture and Forest Resources

	Significant Impact	Less than Significant with Mitigation	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 nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP), California’s statewide agricultural land inventory. Four classifications of farmland are considered valuable: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Any conversion of land within these classifications is typically considered an environmental impact under CEQA. Other categories of land that are not protected by the Department of Conservation include Grazing Land, Urban and Built-up Land, and Other Land. The existing crossings are designated as Urban and Built-up Land by the FMMP. There is no important farmland on or adjacent to the existing crossings.³

Virtually all of the City’s early agricultural lands have been converted to urban uses. Today, agricultural use in the City is limited to personal and community gardens.

The proposed improvements would take place at existing rail crossings in urbanized parts of the City. A review of the California Department of Conservation’s Important Farmland Finder Interactive Map

³ California Department of Conservation. 2022. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed September 2022.

revealed that the existing crossings are classified as Urban and Built-Up Land and are not located near any land under a Williamson Act contract.⁴ There is no forest or timberland on or near the existing crossings.

Regulatory Setting

State

California Land Conservation Act

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 related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Farmland Mapping and Monitoring Program

The California FMMP provides maps and data to decision makers to assist them in making informed decisions regarding the planning of the present and future use of California's agricultural land resources.

PRC/California Government Code

Public Resources Code Section 12220(g) identifies forest land as land that can support a 10 percent native tree cover of any species under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Public Resources Code Section 4526 identifies timberland as land available for and capable of growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Land owned by the federal government and land designated by the State Board of Forestry and Fire Protection as experimental forest land is excluded as timberland.

Government Code Section 51104(g) identifies timberland production zones as areas which have been zoned and are devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

Local

Oakland General Plan

The Oakland General Plan was reviewed but no applicable policies regarding Agriculture and Forest Resources were found.

Impact Discussion

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 nonagricultural use?

No Impact. The existing crossings are located in areas surrounded by commercial, industrial, and residential uses. The existing crossings are not designated by the California Department of Conservation

⁴ California Department of Conservation, 2022. California Important Farmland Finder. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed October 2022.

as farmland of any type. Additionally, no lands adjacent to the existing crossings are designated as farmland. Therefore, no impact would occur, and no mitigation is required.

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

No Impact. The existing crossings are located in areas surrounded by commercial, industrial, and residential uses. The existing crossings are not designated by the California Department of Conservation as farmland of any type, nor are they under a Williamson Act contract. Additionally, no lands adjacent to the existing crossings are designated as farmland. As the existing crossings are not being used for agriculture, implementation of the project would not conflict with zoning for agricultural use or a Williamson Act contract. Therefore, no impact would occur, and no mitigation is required.

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

No Impact. The existing crossings are zoned for commercial, mixed-use residential, and general industrial, and do not contain forest land or other similar resources. Areas surrounding the existing crossings are currently developed with commercial, industrial, and single- and multi-family residential uses. The project would not conflict with timberland or timberland zoned production. As such, no impact would occur, and no mitigation is required.

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

No Impact. The existing crossings are zoned for commercial, mixed-use residential, and general industrial, and do not contain forest land or other similar resources. Areas surrounding the existing crossings are currently developed with commercial, industrial, and single- and multi-family residential uses. Therefore, implementation of the project would not result in loss of forest land or conversion of forest land to non-forest use. As such, no impact would occur, and no mitigation is required.

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?

No Impact. As discussed above, the existing crossings are not located on or adjacent to land designated as farmland. Implementation of the project would not conflict with timberland or timberland zoned production, nor would it result in loss of forest land or the conversion of forest land to non-forest use. Therefore, no impact would occur, and no mitigation is required.

4.3 Air Quality

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is in Alameda County, within the San Francisco Bay Area Basin (Basin). The Basin is managed by the Bay Area Air Quality Management District (BAAQMD). Ambient air quality standards have been established at both the State and Federal level for the BAAQMD. The Basin is designated nonattainment for O₃, PM₁₀, and PM_{2.5} for State standards and nonattainment for O₃ and PM_{2.5} for Federal standards. High PM_{2.5} and PM₁₀ levels can aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. These contaminants include airborne carcinogens and nuisance sources, such as odors or dust.

While the meteorology is generally favorable for minimizing air pollution, the Bay Area is a source region for air quality problems in downwind communities. This is exacerbated by the frequent traffic congestion in Oakland. Consequently, emission reductions in Oakland would have a limited local benefit but would be an important contributor to attaining/maintaining clean air standards in the region.

Transportation is a major contributor to regional air pollution. Stationary sources (e.g., smokestack industries) were once important sources of both regional pollution as well as a local nuisance. Their role in the pollution picture--regionally and locally--has been substantially reduced in recent years by pollution control programs of the BAAQMD. Any further progress in air quality improvement now focuses heavily on the automobile.

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (U.S. EPA) have adopted and implemented a number of regulations and emission standards for stationary and mobile sources to reduce emissions of diesel particulate matter. These include emission standards for off-road diesel engines, including backup generators, and regulatory programs that affect medium and heavy-duty diesel trucks that represent the bulk of diesel particulate matter emissions from California highways. The federal air and ambient air quality standards are depicted in Table 5.

Table 5 Federal and Ambient Air Quality Standards

Pollutant	Average Time	Federal Primary Standards	California Standards
Ozone	1-Hour	---	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	---	---
	24-Hour	---	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	---	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5}	Annual	12 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	---
Lead	30-Day Average	---	1.5 µg/m ³
	3-Month Average	0.15 µg/m ³	---

Source: Environmental Protection Agency, 1990
 ppm = parts per million; µg/m³ = micrograms per cubic meter.

Regulatory Setting

Federal

40 Code of Federal Regulation 93.126

The 40 Code of Federal Regulation (CFR) 93.126, Exempt Projects, lists highway and transit project types that are exempt from the requirement to determine conformity. Such projects may proceed toward implementation even in the absence of a conforming transportation plan and TIP. Such project is not exempt if the Metropolitan Planning Organization (MPO) in consultation with other or the FTA (in the case of a transit project) concur that it has potentially adverse emissions impacts for any reason. States and MPOs must ensure that exempt projects do not interfere with transportation control measures implementation.

State

The California Air Resources Board (CARB) and the U.S. EPA have adopted and implemented a number of regulations and emission standards for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). These include emission standards for off-road diesel engines, including backup generators, and regulatory programs that affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways.

Sensitive Receptors

CARB has identified the following persons who are most likely to be affected by air pollution: infants, children under 18, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, schools, churches and places of assembly, and parks. The closest receptor to the 29th Avenue crossing is Education for Change Latitude High School, located approximately 100 feet east. The closest sensitive receptor to the Fruitvale Avenue crossing are existing residences approximately 200 feet southeast of the crossing. The closest sensitive receptors to the 37th Avenue crossing are single-family homes located approximately 100 feet east. The closest sensitive receptors to the 50th Avenue crossing are the existing residences located approximately 300 feet to the east.

Regional

BAAQMD

BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California EPA) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published CEQA Air Quality Guidelines that are used in this analysis to evaluate air quality impacts. C shows the BAAQMD thresholds.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The City has consistently applied the BAAQMD thresholds in its environmental documents.

The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 6

B. As indicated in Table 6, the project would have a significant impact if average daily emissions from construction and operation exceed 54 lbs/day for ROG, NO_x, and PM_{2.5} and 82 lbs/day for PM₁₀. For TACs BAAQMD notes that “[a]n excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a cumulatively considerable contribution.”⁵ The BAAQMD’s significance thresholds are described in their latest version of their BAAQMD CEQA Air Quality Guidelines issued in May 2017.

⁵ BAAQMD, CEQA Air Quality Guidelines, LOCAL COMMUNITY RISK AND HAZARD IMPACTS – PROJECT LEVEL, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf#page=23

Table 6 BAAQMD Air Quality Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen Oxides (NO _x)	54	54	10
Coarse Particulates (PM ₁₀)	82 (Exhaust)	82	15
Fine Particulates (PM _{2.5})	54 (Exhaust)	54	10

Source: Bay Area Air Quality Management District, 2021

Note: ROG = reactive organic gases, NO_x = nitrogen oxides, PM₁₀ = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM_{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.

Local

Oakland General Plan

After a review of the Oakland General Plan, it has been determined that the following policies that address air quality apply to the project:⁶

Policy CO-12.4 Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include the use of low-polluting energy sources and energy conservation measures, and designs which encourage transit use and facilitate bicycle and pedestrian travel.

Policy CO-12.6 Require construction, demolition, and grading practices which minimize dust emissions.

Impact Discussion

Information in this section is based on the Air Quality Analysis prepared for this project by Kimley Horn Consultants in September 2021.⁷

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

No Impact. The project is exempt from the requirement to determine conformity per 40 Code of Federal Regulation (CFR) 93.126: because it is considered a railroad/highway crossing safety improvement. The project would not conflict with or obstruct implementation of the air quality plan of the area. Therefore, no impact would occur, and no mitigation is required.

⁶ City of Oakland, 1996. City of Oakland General Plan, 1996. Available at: <https://www.oaklandca.gov/topics/city-of-oakland-general-plan>. Accessed October 2022.

⁷ Kimley Horn, 2022. Alameda County Rail Safety Enhancement Program - Air Quality Analysis Oakland ISMND.

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

Less than Significant with Mitigation. The Bay Area is considered a nonattainment area for ground-level O₃ and PM_{2.5} under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not under the federal Act. The area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O₃, PM₁₀ and PM_{2.5}, BAAQMD has established thresholds of significance for air pollutants. These thresholds are for O₃ precursor pollutants (ROG and NO_x), PM₁₀ and PM_{2.5} and apply to both construction period and operational period impacts.

As shown in CConstruction Related Emissions, construction of the project would not cause exceedances for ROG, NO_x, PM_{2.5}, or PM₁₀. The calculated emission results for ROG, NO_x, PM_{2.5}, and PM₁₀ from CalEEMod demonstrate that the construction of this project would not exceed maximum daily thresholds created by the BAAQMD. Project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Construction impacts of the project would be less than significant.

Additionally, **Mitigation Measure AQ-1**, which outlines BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects, would be implemented at all crossings during construction.

Mitigation Measure AQ-1: BAAQMD's Basic Construction Measures Recommended for All Projects

These conditions include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; complete paving as soon as possible after grading; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours.

With implementation of **Mitigation Measure AQ-1** at all crossings during construction, project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Construction impacts would be less than significant with mitigation.

Table 7 Construction Related Emissions

Year	Pollutant (maximum pounds per day) ¹			
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO _x)	Exhaust	
			Coarse Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})
2023	0.87	7.08	8.36	0.02
2024	1.90	15.77	23.90	0.04
BAAQMD Significance Threshold	54	54	82	54
Exceed BAAQMD Threshold?	No	No	No	No

Source: Kimley Horn, 2021

Notes: BMPs = Best Management Practices.

Operations of the project would not lead to additional emissions during the operational phase. As the project would operate similar to existing conditions, the project would not increase any criteria pollutants. Therefore, the project would not result in a cumulatively considerable net increase of criteria pollutants. Operational impacts would be less than significant, and no mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors near the existing crossings include schools and residences. Latitude High School and Epic Middle School share a parcel located approximately 100 feet east of the 29th Avenue crossing. Residences are located approximately 200 feet southeast of the Fruitvale Avenue crossing, 100 feet east of the 37th Avenue crossing, and 300 feet east of the 50th Avenue crossing. Construction could result in the temporary generation of emissions during demolition, site preparation, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Diesel-powered construction equipment for the project could include rubber-tired dozers, tractors, loaders, skid-steer loaders, cement and mortar mixers, pavers, rollers, and graders. Construction equipment would not operate more than 12 hours daily on the weekdays and 11 hours on the weekends. These equipment would be staged within the Alameda CTC right-of-way. As discussed under threshold (b), above, construction activities would generate PM_{2.5} exhaust of 38.23 lbs/day in 2022 and 58.79 lbs/day in 2023, which would not exceed BAAQMD significance threshold. Construction activities would not result in substantial pollutant emissions or toxic air contaminants and thus no Health Risk Analysis was performed.

Construction activities would be minor and limited to the existing crossing footprints. These activities would be temporary, lasting for approximately 12 months. Furthermore, project operations would not result in a net increase in pollutant emissions because no additional capacity would be added to any of the intersections. Therefore, this impact would be less than significant, and no mitigation is required.

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

Less than Significant. During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. While the existing crossings are located near residential neighborhoods, construction-related odors would disperse and would not cause substantial odors near the existing crossings. Sensitive receptors closest to the existing crossings include Latitude High School / Epic Middle School and residential homes. In addition, construction-related odors would be temporary and would cease upon completion of construction.

Once operational, the project is not expected to produce any offensive odors that would result in odor complaints, based on BAAQMD's guidelines for odor-generating uses and activities. Therefore, the impact would be less than significant, and no mitigation is required.

4.4 Biological Resources

	Significant Impact	Less than Significant with Mitigation	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 candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A Biological Resources Assessment was prepared by Rincon Consultants in October 2022. The biological study area comprises the four existing rail crossings consists primarily of paved and developed urban avenues and railroad crossings. The project site consists of developed land that has been modified such that most or all vegetation has been removed. Only small areas of landscaped or ruderal vegetation are present. The land cover consists of paved roads, UPRR railroad tracks, and other infrastructure associated with the UPRR crossings.

All four crossings occur within the Sausal Creek-Frontal San Francisco Bay Estuaries Watershed. No waterways or drainages exist within the study area. San Francisco Bay is located approximately 2,200 feet west of the 29th Avenue crossing, approximately 1,800 feet west of the 37th Avenue crossing, approximately 2,100 feet west of the 50th Avenue crossing, and approximately 1,900 feet west of the Fruitvale Avenue crossing.

No intact natural vegetation communities were identified within the study area during the field reconnaissance survey in October 2022. Additionally, no sensitive natural communities, essential wildlife corridors or habitat linkages exist within the study area.

The project site does not fall within the boundaries of any adopted habitat conservation plan. Additionally, trees are scarce in the area and would likely not be affected by the project.

Due to the relatively low amounts of vegetation on site and the urban context, the possibility of special-status wildlife habitat is considered to be unlikely. Generally, wildlife habitats in developed urban areas such as the project site are low in species diversity. Bird species observed during field reconnaissance include the introduced rock pigeon (*Columba livia*) and the native American crow (*Corvus brachyrhynchos*) and bushtit (*Psaltriparus minimus*). Reptile species observed include the western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis catenifer*). Raptors (birds of prey) and other urban birds could use trees and human-made structures on the project site for nesting or as a roost. Raptors and other migratory birds are protected by the Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.).

No federally listed species have potential to occur within the study area. However, one state fully-protected species has a high potential to occur within the study area, the American peregrine falcon (*Falco peregrinus anatum*).

Regulatory Setting

Federal

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) Endangered Species Act protects listed wildlife species from harm or “take” which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that directly results in death or injury to a listed wildlife species.

Federal Migratory Bird Treaty Act

The federal MBTA (16 U.S.C., §703, Supp. I, 1989) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Migratory birds protected under this law include all native birds and certain game birds (e.g., turkeys and pheasants). The MBTA encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA protects active nests from destruction and all nests of species protected by the MBTA, whether active or not, cannot be possessed. An active nest under the MBTA, as described by the Department of the Interior in its April 15, 2003 Migratory Bird Permit Memorandum, is one having eggs or young. Nest starts, prior to egg laying, are not protected from destruction. All native bird species in the City are protected under the MBTA.

State

California Endangered Species Act and California Native Plant Protection Act

The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered (California Fish and Game Code, Chapter 1.5, Sections 2050-2116). In accordance with the CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species. The CDFW regulates activities that may result in “take” of individuals listed under the Act (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the Fish and Game Code. The CDFW, however, has interpreted “take” to include the “killing of a member of a species which is the proximate result of habitat modification.” The

California Native Plant Protection Act preserves, protects, and enhances endangered and rare plants in California. It specifically prohibits the importation, take, possession, or sale of any native plant designated by the CDFW as rare or endangered, except under specific circumstances identified in the Act.

California Fish and Game Code

The California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats. The CDFW exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of Sections 1601 - 1603 of the Fish and Game Code. The Fish and Game Code requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or waterbody and for the removal of riparian vegetation. Provisions of these sections may apply to modifications of sensitive aquatic habitats and riparian habitats within the City.

Other regulations in the Fish and Game Code provide protection for native birds, including their nests and eggs (Sections 3503, 2513, and 3800). These regulations prohibit all forms of take, including disturbance that causes nest abandonment and/or loss of reproductive effort. Raptors (i.e., eagles, falcons, hawks, and owls) are specifically protected under Fish and Game Code Section 3503.5.

Local

Oakland General Plan

The Open Space Conservation and Recreation Element of the Oakland General Plan establishes policies for the management and conservation of the City's natural resources and the protection of the community from hazards. Based on a review of the General Plan, the following policies, goals, and actions are determined to be applicable to the Project:⁸

- Action CO-7.3.2* Maintenance Agreements. Require, implement, and enforce maintenance agreements and monitoring programs for new developments which ensure that new landscaping is properly cared for, particularly in commonly-owned private *open-space areas*.
- Policy CO-7.4* Tree Removal. Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.
- Policy CO-8.1* Mitigation of Development Impacts. Work with Federal, state, and regional agencies on an on-going basis to determine mitigation measures for development which could potentially impact wetlands. Strongly discourage development with unmitigable adverse impacts.
- Action CO-8.1.1* Mitigation Planning and Monitoring. Support development of mitigation plans and monitoring programs for projects which may impact wetlands.
- Objective CO-9.0* Rare, Endangered, and Threatened Species. To protect rare, endangered, and threatened species from the impacts of urbanization.
- Objective CO-11* Wildlife. To sustain a healthy wildlife population within the City of Oakland.
- Policy CO-11.1* Protection from Urbanization. Protect wildlife from the hazards of urbanization, including loss of habitat and predation by domestic animals.

⁸ City of Oakland, 1996. City of Oakland General Plan, Open Space Conservation and Recreation Element, 1996. Available at: <https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf>. Accessed October 2022.

Oakland Tree Ordinance

Chapter 15.52 of the OMC contains various codes and polices related to the planting or removal of trees and shrubs within the City. Trees are defined as any woody perennial plant, usually with one main trunk, attaining a height of at least eight feet at maturity. Additional protections are specified for the coast live oak (*Quercus agrifolia*).

Impact Discussion

Information in this section is based on the Biological Resources Assessment prepared for this project by Rincon Consultants in October 2022.⁹

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species 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. Due to the highly developed nature of the project site and surrounding area, as well as the lack of suitable habitat for special-status species, no special-status plant species are expected to occur within any of the crossings. Due to the low likelihood of occurrence, the potential for impacts to special-status plant species is extremely low to none. As such, there would be no impact to special-status plant species.

No federally protected wildlife species have potential to occur in the project area. However, one special-status species and other nesting birds have potential to occur within the study area, The American peregrine falcon (*Falco peregrinus anatum*, federally delisted, state delisted, CDFW fully protected) has a high potential to forage in the study area. No suitable nesting habitat for the American peregrine falcon exists within the study area. Suitable nesting habitat within the study area and immediate vicinity could include human-made structures, the ground surface, shrubs, and trees. California Fish and Game Code protects all nesting birds, including non-natives; however, there is a low potential for species to nest on buildings within 500 feet of the project sites. Should the American peregrine falcon or other nesting birds be present on-site during construction, direct impacts could include injury or mortality of individuals. Indirect impacts could include disturbance of nesting behavior or habitat. **Mitigation Measure BIO-1** would be implemented to reduce potential impacts to this special-status species and other nesting birds.

Mitigation Measure BIO-1: Pre-Construction Survey and Impact Avoidance for Raptors and Other Nesting Birds

Ground-disturbing activities should be restricted to the non-breeding season (September 1 to January 31) when feasible. If construction activities occur during the nesting bird season (February 1 to August 31), the following mitigation measures are recommended to reduce impacts to nesting special-status avian species, and other nesting birds protected by CFGC and the MBTA:

- A pre-construction nesting bird survey should be conducted by a qualified biologist no more than 7 days prior to initiation of ground disturbance and vegetation removal. The survey area should include all work areas and, at a minimum, a 150-foot buffer for passerines and a 500-foot buffer for raptors.
- If nests are found, an appropriate avoidance buffer will be determined and demarcated by the qualified biologist with high-visibility material. Avoidance buffers should be established

⁹ Rincon.2022. *Biological Resources Assessment. Alameda County Transportation Commission Rail Safety Enhancement Program – Oakland.2022.*

based on the nesting species, the nest location in relation to project activity, the line-of-sight from the nest to the project activity and observed behavior at the nest.

- All construction personnel should be notified as to the existence of the buffer zones and to avoid entering buffer zones during the nesting season. No ground-disturbing activities should occur within the buffer until the qualified biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer should occur only at the discretion of the qualified biologist.

With implementation of **Mitigation Measure BIO-1** at all crossing locations, indirect impacts from project activities would be minimized. Therefore, this impact would be less than significant with mitigation.

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 Game or U.S. Fish and Wildlife Service?

No Impact. There are no sensitive natural communities, riparian habitat, or federally designated critical habitats located within or around the existing crossings. Therefore, no impacts would occur, and no mitigation is required.

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

Less than Significant with Mitigation. No jurisdictional waters or wetlands occur near the existing crossings and no direct impacts would occur. Indirect impacts from project activities could occur if sediment or pollutants were allowed to enter nearby waters, including the San Francisco Bay and its associated wetlands. In addition to post construction Best Management Practices (BMPs) which would address construction site runoff (see Section 2.10, Hydrology and Water Quality), **Mitigation Measure BIO-2** would be implemented at all crossing locations to prevent impacts to nearby jurisdictional areas.

Mitigation Measure BIO-2: Mitigation Measures for Waters and Wetlands

At a minimum, the following Best Management Practices (BMPs) will be implemented on-site during and following construction to prevent any indirect impacts to downstream waters and wetlands.

1. Vehicles and equipment should be checked at least daily for leaks and maintained in good working order. Spill kits should be available on-site at all times and a spill response plan should be developed and implemented.
2. Sediment and erosion control measures (e.g., sand or gravel bags, hay bales, check dams) should be implemented and maintained throughout the project site to prevent the entry of sediment and/or pollutants into any waterways or jurisdictional areas. No monofilament plastic will be used for erosion control.

With implementation of **Mitigation Measure BIO-2** at all crossing locations, indirect impacts from project activities would be minimized with BMPs. Therefore, this impact would be less than significant with mitigation.

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

No Impact. The existing crossings are in a developed urban area with an active railway and substantial vehicular traffic. No Essential Connectivity Areas or Natural Landscape Blocks occur near the existing crossings. While wildlife species acclimated to urban environments (e.g., coyotes, raccoons) have the potential to occasionally pass through the study area or use the railroad tracks for dispersal, the study area does not provide a significant migratory or dispersal corridor for wildlife species due to the developed nature of the area and frequent disturbance from trains and vehicles. Additionally, project activities are not expected to interfere substantially with the movement of any fish or wildlife species or to impede the use of wildlife corridors or wildlife nursery sites, as construction of the project would include ground clearing, grading, and sidewalk removal and replacement in the existing crossings. Therefore, no impact would occur, and no mitigation is required.

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

Less than Significant with Mitigation. Project activities are subject to the City's General Plan and Municipal Codes. The Open Space, Conservation and Recreation Element of the General Plan establishes policies for the management and conservation of the City's natural resources. Protected resources include water, plants, and animals. Impacts to waterways from project activities are not anticipated. **Mitigation Measure BIO-2** includes recommendations for reducing any potential impacts to water quality. Therefore, with incorporation of **Mitigation Measure BIO-2** at all crossing locations, potential impacts would be less than significant.

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?

No Impact. The project does not fall within the boundaries of an adopted Habitat Conservation Plan or Natural Community Conservation Plan areas. Therefore, the project would not conflict with any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan. No impact would occur, and no mitigation is required.

4.5 Cultural Resources

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Important historical buildings and sites throughout the City of Oakland and Alameda County are recognized and designated as landmarks by the Landmarks Preservation Commission. Within the City, there are approximately 100,000 residential, commercial and industrial buildings. At least 50 percent of them were built before the end of World War II. These approximately 50,000 older properties constitute a vast resource important to the character and overall physical quality of the City.¹⁰

A search of the California Historical Resources Information System (CHRIS) was requested at the Northwest Information Center (NWIC) at Sonoma State University. The records search was intended to identify previously recorded cultural resources, as well as previously conducted cultural resource studies within the project site and a 0.25-mile radius. The records search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Built Environment Resources Directory, and the Archaeological Determinations of Eligibility list. The NWIC records search was completed on October 25, 2022, by NWIC staff. The records search did not identify any previously recorded cultural resources within the project site. Within the 0.25-mile radius, the records search identified ten previously recorded cultural resources, all of which were outside of the area that would be disturbed by the project.

The Area of Potential Effects (APE)

The Area of Potential Effects (APE) for a project is defined in 36 Code of Federal Regulations 800.16(d) as the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such property exists.” The APE was developed in compliance with the Section 106 of the National Historic Preservation Act. The APE of the project is confined to the boundaries of the railroad intersections of 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue. The APE is located in an urbanized area and is predominantly surrounded by business, commercial, and light industrial uses.

¹⁰ City of Oakland. 1998. Oakland General Plan Historic Preservation Element: Appendix C Oakland Cultural Heritage Survey Evaluation System. Available: <https://www.oaklandca.gov/documents/historic-preservation-element-for-the-general-plan>. Accessed December, 2022.

Regulatory Setting

Federal

The National Register of Historic Places

The National Register of Historic Places has specific criteria for evaluating the eligibility of historic resources. The criteria apply to the quality of significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that: (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield information important in history or prehistory.

State

California Public Resources Code

Archaeological, paleontological, and historical sites are protected by a wide variety of policies and regulations under the California Public Resources Code. Under the Public Resources Code, the State Historical Resources Commission is responsible for oversight of the California Register of Historical Resources (California Register) and designation of State Historical Landmarks and Historical Points of Interest. Key provisions of the Public Resources Code that provide protection to cultural and paleontological resources are outlined below.

- California Public Resources Code Sections 5097.9–5097.991 protects Native American historical and cultural resources and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.
- California Public Resources Code Sections 5097.98 provides that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation until the coroner has determined that the remains are not subject to provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC.
- California Public Resources Code Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission.

Health and Safety Code Section 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the County coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California Native Heritage Commission (NAHC).

State Historic Resources Inventory

The California Register of Historical Resources, enacted in 1992, is an authoritative guide to be used to identify the state's historical resources. The California Register program encourages public recognition of resources of architectural, historical, archeological and cultural significance; identifies historical resources for state and local planning purposes; and defines threshold eligibility for state historic preservation grant funding.

13 Code of Federal Regulations, Title 36, Part 60. By law, properties may be added to the California Register in two ways. At this time, the California Register consists of resources that are listed automatically by status through the California Register enabling legislation (AB 2881). The California Register includes properties listed in, or formally determined eligible for, the National Register, and selected California Registered Historical Landmarks. Formal Guidelines and Procedures for the direct nomination of properties must be adopted by the State Historical Resources Commission before other resources can be added. As an informational resource, the State Historic Preservation Office (SHPO) also maintains the Directory of Properties in the Historic Property Data File. This inventory is considered the most comprehensive list of historic properties for the State of California currently in existence.

This state survey produced a representative rather than a comprehensive inventory. The scope and reliability of the data within the listing varies depending upon the availability of information. Many properties exist which have been locally designated as City Landmarks or "Architecturally Significant" buildings that are not within the Historic Property Data File maintained by SHPO. The information contained in the SHPO directory indicates whether a property is listed in the National Register, or is determined eligible for listing in the National Register or through another federal agency. In addition, the State Historic Preservation Office must be consulted on any federally-assisted project which involves any building 50 years of age or older.

California Environmental Quality Act

Historical Resources

The CEQA Guidelines define a significant resource as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (California Register) [see Public Resources Code, Section 21084.1 and CEQA Guidelines Section 15064.5 (a) and (b)]. The California Register includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. The criteria are nearly identical to those of the NRHP, which includes resources of local, State, and region or national levels of significance. In general, the California Register defines historical resources as any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant; or is significant in the architectural, engineering, scientific, economic, agricultural educational, social, political, or cultural annals of California; and meets the criteria for listing on the California Register including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;

- Embodies 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

Archeological Resources

CEQA also requires lead agencies to consider whether projects will affect “unique archaeological resources” (Public Resources Code, Section 21083.2(g)) which are defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options for unique archaeological resources include preservation in place in an undisturbed state; excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a “unique archaeological resource”).

Paleontological Resources

Treatment of paleontological resources under CEQA is generally similar to treatment of cultural resources, requiring evaluation of resources in a project’s area of potential affect, assessment of potential impacts on significant or unique resources, and development of mitigation measures for potentially significant impacts, which may include monitoring combined with data recovery and/or avoidance.

Native American Burials

California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (Section 7050.5(b) of the California Health and Safety Code). CEQA Guidelines section 15064.5(e) requires that excavation activities be stopped whenever human remains are uncovered, and that the county coroner or medical examiner be contacted to assess the remains. If the county coroner or medical examiner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. The property owner is required to consult with the appropriate Native Americans identified by the NAHC as a “most likely descendant” to develop an agreement for the treatment and disposition of the remains. These requirements are also contained in the County Codes for the County of Santa Clara (Sections B6-19 and B6-20).

Local

Oakland General Plan

The Oakland General Plan outlines policies that have been adopted for preserving the City's cultural resources and for minimizing impacts that may result from development. Based on a review of the General Plan the following policy are determined to be applicable to the project: ¹¹

Policy 3.1 Avoid or minimize adverse historic preservation impacts related to discretionary city actions. The City will make all reasonable efforts to avoid or minimize adverse effects on the character defining elements of existing or potential designated historic properties which could result from private or public projects requiring discretionary city actions.

Impact Discussion

Information in this section is based on the Cultural Resources Study prepared for this project by Rincon Consultants in December 2022.

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

Less than Significant. As described in the Cultural Resources Study prepared for the project, a pedestrian field survey was conducted for the project November 4, 2022. The survey consisted of inspecting areas of exposed ground for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics).

Although the Southern Pacific Railroad (SPRR) was not recorded or evaluated for the CRHR, there is limited potential for the SPRR to be materially impaired regardless of its potential historical resources eligibility as defined in Section 15064.5 of the CEQA Guidelines. The existing alignment and tracks will not be altered by current project activities as groundwork would be limited and confined to the project area of each crossing. Additionally, proposed safety improvements are generally consistent with the existing conditions of the railway crossings. Therefore, this impact would be less than significant, and no mitigation is required.

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

Less than Significant with Mitigation. Site conditions and previous land uses indicate that the existing crossings have been extensively disturbed by extant rail lines and utilities associated with the surrounding development. While impacts to archaeological resources within the project site is unlikely, the potential occurrence of cultural resources cannot be entirely discounted. Therefore, the project would incorporate **Mitigation Measure CUL-1** in the event of an unanticipated discovery of archaeological resources. The project is also required to adhere to state regulations regarding the discovery of human remains, detailed below.

¹¹ City of Oakland, 1996. Oakland General Plan, 1996. Available at: <https://www.oaklandca.gov/topics/city-of-oakland-general-plan>. Accessed October 2022.

Mitigation Measure CUL-1: Unanticipated Discovery if Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior’s Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.

With implementation of **Mitigation Measure CUL-1** at all crossings, potential subsurface cultural resources would be properly recovered and other direct and indirect impacts from construction would be limited. Therefore, project impacts would be less than significant with mitigation.

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

Less than Significant with Mitigation. In the event that human remains are discovered during construction, the project applicant would comply with the California Health and Safety Code Section 7050.5 regarding human remains, and the PRC Section 5097.98 regarding the treatment of Native American human remains. Therefore, the project would incorporate the following best management practice in the event of an unanticipated discovery of human remains. The project is also required to adhere to state regulations regarding the discovery of human remains, detailed below.

Mitigation Measure CUL-2: Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California 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 PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the Alameda County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

With implementation of **Mitigation Measure CUL-2** at all crossings, potential disturbance of human remains would be properly recovered and other direct and indirect impacts from construction would be limited. Therefore, project impacts would be less than significant with mitigation.

4.6 Energy

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate. California consumed 272,576 gigawatt-hours of electricity and approximately 2,250 trillion British thermal units of natural gas in 2019.¹² Most of California’s electricity is generated in-state with approximately 30 percent imported from the northwest and southwest in 2019. In addition, approximately 34 percent of California’s electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass.¹³

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California and is used by light-duty cars, pickup trucks, and sport utility vehicles. Diesel is the second most-used fuel in California and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles. Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including CO₂ and N₂O.

Regulatory Setting

State

The 100 Percent Clean Energy Act of 2018 (Senate Bill 100)

SB 100 sets a 2045 goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources — those such as solar and wind energy that do not emit climate-altering greenhouse gases. SB 100 also requires updates the state’s Renewables Portfolio Standard to ensure that by 2030 at least 60 percent of California’s electricity is renewable. Additionally,

¹² U.S. Energy Information Administration. 2021. California State Energy Profile. 2019. Available at: <https://www.eia.gov/state/print.php?sid=CA>. Accessed September 2022.

¹³ California Energy Commission. 2020 Total System Electric Generation. 2022. Available at: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation#:~:text=Total%20generation%20for%20California%20was,to%2057%20percent%20in%202019>. Accessed September 2022.

SB 100 requires the Energy Commission, Public Utilities Commission and Air Resources Board to use programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter.

Building Energy Efficiency Standards - Title 24

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California’s energy consumption. Title 24 is updated approximately every three years.¹⁴ Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.

Executive Order B-55-18 To Achieve Carbon Neutrality

In September 2018, Governor Brown issued an executive order, EO-B-55-18 To Achieve Carbon Neutrality, setting a statewide goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” The executive order requires CARB to “ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.” EO-B-55-18 supplements EO S-3-05 by requiring not only emissions reductions, but also that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂ from the atmosphere through sequestration.

Local

Oakland General Plan

Based on a review of the General Plan, the following policies and objectives are determined to be applicable to the project:

Objective CO-13 Energy Resources. To manage Oakland’s energy resources as efficiently as possible, reduce consumption of non-renewable resources, and develop energy resources which reduce dependency on fossil fuels.

Policy CO-13.3 Encourage the use of energy-efficient construction and building materials.
Encourage site plans for new development which maximize energy efficiency.

Oakland Equitable Climate Action Plan

Based on a review of the Equitable Climate Action Plan (ECAP), the following policies and objectives are determined to be applicable to the project:

Adaptation A-2 Work with EBCE to develop a program and timeline for increasing resilience to power losses, including Public Safety Power Shutoffs (PSPS), and climate-driven extreme weather events for low-income, medically dependent, and elderly populations through installation of renewable energy and onsite energy storage with islanding capabilities, following appropriate project-level environmental review. Include energy efficiency building upgrades in any program, leveraging local and regional incentives. This program may include grants, incentives, rebates, and/or integration with other energy programs.

¹⁴ California Energy Commission. 2022. Building Energy Efficiency Standards - Title 24. Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards>. Accessed March 2023.

Impact Discussion

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

Construction

Less than Significant. Project construction activities such as grading, and sidewalk replacement would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary power may also be provided for construction trailers and electric construction equipment.

Electrical power would be required to construct the project and would be supplied from existing electrical infrastructure in the area. However, construction activities would be temporary and would not have an adverse impact on available electricity supplies or infrastructure. Energy consumption from project construction would be negligible compared to the overall consumption of electricity in Alameda County or California.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Therefore, project construction would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and no mitigation is required.

Operation

Less than Significant. Energy demand from project operation would be similar to existing conditions, and would include electricity consumed by crossing arms and lights. Electricity would be provided by Pacific Gas & Electric (PG&E) and East Bay Community Energy. East Bay Community Energy supplies renewable energy, which would reduce the amount of nonrenewable fuels consumed to supply electricity to the crossings. The project would operate at energy levels similar to existing energy usage. Therefore, the project's impact on energy consumption would be less than significant, and no mitigation is required.

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

Less than Significant. Senate Bill 100, discussed in **Section 4.8, Greenhouse Gas Emissions**, mandates 100 percent clean electricity for California by 2045. Because the project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy and would not conflict with this statewide plan. Furthermore, the project would comply with all applicable Title 24 requirements pertaining to energy efficiency and renewable energy.

The Oakland General Plan and the Alameda County Climate Action Plan (CAP) include several goals and policies related to renewable energy and energy efficiency. The project would include construction of additional warning signals on either side of the existing crossings. While the addition of the warning signals would slightly increase energy consumption for the City, this increase would be negligible and the overall energy use for operation and maintaining the project would be similar to existing uses. This impact would be less than significant, and no mitigation is required.

4.7 Geology and Soils

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in table 18-1b of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is located within the Coast Ranges geomorphic province, a relatively geologically young and seismically active region. The Coast Ranges are mountain ranges (approximately 2,000 to 4,000, and occasionally 6,000 feet elevation above sea level) and valleys that trend northwest, approximately parallel to the San Andreas fault, from near the Oregon border to southern California. The only major break in the Coast Ranges is the depression containing San Francisco Bay within which the project area is

located. Based on USGS regional mapping of the San Francisco Bay region, the majority of the project area is underlain by beach and dune sand.¹⁵

The existing crossings have a flat topography and no known active faults cross any of the existing crossings. All existing crossings are located within the Liquefaction Seismic Hazard Zone. The existing crossings are not within an Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act. The closest active fault to the project site is the Hayward Fault Zone, which is approximately 3 miles northeast of the rail crossings. Other active faults within the San Francisco Bay Area Region capable of generating ground shaking at the project site, include the Calaveras Fault (13.5 miles), San Andreas (16 miles), Greenville Fault (26.1 miles), and Concord Fault (16 miles).¹⁶

Regulatory Setting

State

The Alquist-Priolo Earthquake Zoning Act

The Alquist-Priolo Earthquake Zoning Act (1972) and the Seismic Mapping Act (1990) direct the State Geologist to delineate regulatory zones to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project site is not located within the Alquist-Priolo Earthquake Zone, and no active faults have been mapped on the project site. The closest active fault to the project site is the Hayward Fault Zone, which is approximately 3 miles northeast of the rail crossings. However, the project does not propose the construction of a structure for human inhabitation. Therefore, the project would not trigger the Alquist Priolo Act. Other active faults within the San Francisco Bay Area Region capable of generating ground shaking at the project site, include the Calaveras Fault (13.5 miles), San Andreas (16 miles), Greenville Fault (26.1 miles), and Concord Fault (16 miles).

As described in the Alquist-Priolo Hazard Zone Act of 1972, a State Geologist is required to delineate wide special study zones in order to encompass all active and potentially active traces of the San Andreas, Calaveras, Hayward, and other such faults or fault segments as necessary. The established hazard zones are to be a minimum of one-quarter wide.

Local

Oakland General Plan

Various policies in the General Plan Public Safety Element have been adopted for avoiding or mitigating impacts resulting from project development within the City. Based on a review of the General Plan, the following policies and actions are determined to be applicable to the project:¹⁷

Action GE-1.1 Continue to enforce the geologic reports ordinance by requiring site-specific geologic reports for development proposals in the Hayward fault Special Studies Zone, and restricting the placement of structures for human occupancy within 50 feet of the trace.

¹⁵ United States Geological Survey (USGS), 2016. San Francisco Bay Region Geology and Geologic Hazards. Available at: <http://geomaps.wr.usgs.gov/sfgeo/geologic/downloads.html>. Accessed October 2022.

¹⁶ California Geological Survey, 2021. Earthquake Zones of Required Investigation. Available at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed October 2022.

¹⁷ City of Oakland, 2004. Oakland General Plan, Safety Element. Available at: <https://www.oaklandca.gov/resources/safety-element>. Accessed October 2022.

- Action GE-2.1* Continue to enforce provisions under the subdivision ordinance requiring that, under certain conditions, geotechnical reports be filed and soil hazards investigations be made to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken.
- Action GE-2.2* Continue to enforce the grading, erosion and sedimentation ordinance by requiring, under certain conditions, grading permits and plans to control erosion and sedimentation.
- Policy GE-4* Work to reduce potential damage from earthquakes to “lifeline” utility and transportation systems.

Impact Discussion

- 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?**

No Impact. Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. Fault rupture is generally expected to occur along known active fault traces. Areas susceptible to fault rupture are delineated by the California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Zones map and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure. No active or potentially active faults are known to pass directly beneath the existing crossings. Therefore, the potential for surface rupture due to faulting occurring beneath the sites during the design life of the project is low. Due to the distances of faults from the project sites, and the absence of known faults within or near the project, implementation of the project would not expose people or buildings to known risks of fault rupture. There would be no impact, and no mitigation is required.

- ii. **Strong seismic ground shaking?**

Less than Significant. Earthquakes along several nearby active faults in the region could cause moderate to strong ground shaking at the project sites. The intensity of the earthquake ground motions, and the damage done by shaking would depend on the characteristics of the generating fault, distance to the fault and rupture zone, earthquake magnitude, earthquake duration, and site-specific geologic conditions. Given that the entire Bay Area region is subject to strong seismic ground shaking during a large earthquake event, the project would not expose people or structures to any greater risks involving seismic ground shaking than similar transportation features in the surrounding area. Because the project does not involve habitable structures and is limited to safety improvements at both existing crossings, no additional risk due to ground shaking would occur. Therefore, impacts related to seismic ground shaking would be less than significant, and no mitigation is required.

- iii. **Seismic-related ground failure, including liquefaction?**

Less than Significant. Soil liquefaction is a condition where saturated granular soils near the ground surface undergo a significant loss of strength during seismic events. Loose, water-saturated soils are transformed from a solid to a liquid state during ground shaking. Liquefaction can result in significant deformations and ground rupture. Soils most susceptible to liquefaction are loose, uniformly graded, saturated, fine-grained sands that lie close to the ground surface.

The project sites are located within a State-designated Liquefaction Hazard Zone. The likely consequence of potential liquefaction at the site would be settlement. However, the limited scope of the improvements at the existing crossings would not change any risk from liquefaction or settlement. No structures are proposed. Therefore, impacts related to liquefaction would be less than significant, and no mitigation is required.

iv. Landslides?

No Impact. The project site and surrounding area are relatively flat and there are no adjacent steep slopes or hillsides that would be susceptible to landslides. Improvements proposed as part of the project do not include substantial mounding of earth or other substantive changes to grade that would create slope instability hazards. The project would not, therefore, be exposed to landslide-related hazards. No impact would occur, and no mitigation is required.

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

Less than Significant. Project construction would involve ground disturbing activities that would temporarily expose soils and increase the potential for soil erosion from wind or stormwater runoff. The project would be subject to the requirements of Alameda County Stormwater Quality BMPs and would be required to comply with the City's BMPs for erosion and sedimentation control during the construction period. As a result, impacts related to erosion and loss of topsoil would be less than significant, and no mitigation is required.

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

Less than Significant. As discussed in Section 2.7, Geology and Soils, a.ii and a.iii, liquefaction and landslide risk at the project site are very low. Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open face, such as the steep bank of a stream channel. Large scale lateral spreading is considered unlikely because the project sites are relatively flat and the probability for liquefaction at the site is considered low, as discussed above.

Subsidence is the settlement of organic soils and/or saturated mineral soils of low density following drainage. Soils susceptible to lateral spreading, sloughing, or caving pose a risk to human health and structures when located near a steep or vertical slope (e.g., basement foundation). Settlement is a common concern for new buildings because the weight of newly constructed buildings can cause significant compaction of the underlying soils. As the project site is relatively flat and no buildings or subsurface structures are included as part of the project, impacts related to subsidence would be less than significant.

As described above, the project site is not at risk of landslides, lateral spreading, subsidence or significant liquefaction. Therefore, impacts related to soil stability would be less than significant, and no mitigation is required.

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

No Impact. Moderate to highly expansive soils may be present at the existing crossings. Expansive soils can undergo significant volume changes when moisture content in the soil fluctuates. However, due to the limited nature of the improvements at the crossings and that no structures are proposed, there would be no risks related to expansive soils. No impact would occur, and no mitigation is required.

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

No Impact. No septic tanks or alternative wastewater disposal systems are proposed, and no wastewater would be generated by the project. Therefore, no impact would occur, and no mitigation is required.

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

Less than Significant with Mitigation. The project site is currently developed with existing at-grade rail crossings. Ground disturbance from project construction activities would be primarily limited to previously disturbed areas. As such, it is not anticipated that project construction would encounter paleontological resources. However, in the event that paleontological resources are encountered during construction, they may be inadvertently damaged or destroyed. This is a potentially significant impact.

Mitigation Measure GEO-1 would require the implementation of procedures should paleontological resources be encountered during construction. Implementation of **Mitigation Measure GEO-1** at all crossing locations would reduce potential impacts to paleontological resources.

Mitigation Measure GEO-1: Discovery of Paleontological Resources

Discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

With implementation of **Mitigation Measure GEO-1**, potential impacts to paleontological resources would be reduced to a less than significant level for all crossings.

4.8 Greenhouse Gas Emissions

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Unlike emissions of criteria and toxic air pollutants, GHGs have a broader, global impact. GHGs such as carbon dioxide (CO₂), methane, water vapor and nitrous oxide (NO_x) occur naturally in the earth's atmosphere and are responsible for maintaining the earth's surface temperature. Compounds such as chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride are byproducts of human economic activities like fossil fuel combustion and act as GHGs. While natural levels of GHGs keep the earth comfortable, these human-generated compounds pose various adverse effects and result in global warming. The continued release of GHGs at or above current rates would continue to increase average global surface temperatures and would alter the planet's climate, creating significant long-term local, regional, and global impacts.

BAAQMD has adopted thresholds of significance to assist in the review of operational GHGs under CEQA. BAAQMD has not adopted a threshold for construction-period GHG emissions, as GHG emission impacts reflect the long-term and cumulative effect of GHG on a global scale, while construction-period emissions are intermittent and temporary. These thresholds are designed to establish the level at which GHG emissions would cause significant environmental impacts. The significance thresholds identified by BAAQMD are:

- Consistency with a qualified GHG Reduction Strategy (such as a climate action plan) OR
- Emissions below 1,100 MT of CO₂e per year per project OR
- Emissions below 4.6 MT CO₂e per service population per year.

However, the current thresholds set by BAAQMD were established to achieve the State's 2020 GHG reduction target. Because the project is not anticipated to be operational until after 2020, an analysis of consistency with the state's post-2020 GHG reduction goals is appropriate. While the achievement of 2020 GHG reduction goals could – in part – reasonably be attained through local reductions in GHGs, such as those outlined in the Alameda County Community Climate Action Plan (CAP), the attainment of 2030 goals and beyond increasingly requires sector-wide and Statewide policy changes to address GHG emissions. Many of these actions are outside of the jurisdiction and/or capacity of individual municipalities.

For example, in the energy sector, renewable energy production sources (such as wind and solar energy) must comprise 50 percent of all retail sales statewide by 2030. Additionally, the post-2020 Cap and Trade program has been designed to capture 80 percent of statewide GHG emissions. A more detailed list of actions required to achieve 2030 goals is provided below. Therefore, in this analysis, the project is compared to the Alameda County CAP for the project's opening in the year (2024), and additionally is evaluated for overall GHG reductions consistent with 2030 statewide goals.

Regulatory Setting

State

California Assembly Bill 32

With the passage of Assembly Bill 32 (AB 32, Global Warming Solutions Act of 2006), the State of California made a commitment to reduce GHG emissions to 1990 levels by 2020, which represents about a 30 percent decrease over 2006 levels. In December 2008, CARB approved the Climate Change Scoping Plan, which provided a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal.

Executive Order B-30-15 and Senate Bill 350

In April 2015, the Governor issued Executive Order B-30-15, which established a GHG reduction target of 40 percent below 1990 levels by 2030. Senate Bill 350 (SB 350) advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the California Energy Commission (CEC) to establish annual targets to double energy efficiency in buildings by 2030. In October 2017, the CEC issued their final report on a strategy to double energy efficiency by 2030. The report sets targets for utility providers and "nonutility" program savings. Nonutility program savings focus on energy efficiency savings from programs such as Building Efficiency Standards and Appliance Efficiency regulation. SB 350 requires large publicly owned utilities and all load-serving entities under the jurisdiction of the California Public Utilities Commission (CPUC) to file integrated resource plans (IRPs) with the CEC and CPUC, respectively. IRPs must detail how each utility will meet their customers resource needs, reduce GHG emissions, and ramp up the deployment of clean energy resources in order to meet the 2030 target, pursuant to SB 350. The law also requires the CPUC to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal.

Senate Bill 100

Adopted on September 10, 2018, Senate Bill 100 (SB 100) supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 32

In September 2016, the Governor signed Senate Bill 32 (SB 32) into legislation, which builds on AB 32 and requires the state to cut GHG emissions to 40 percent below 1990 levels by 2030. With SB 32, the Legislature also passed AB 197, which provides additional direction for updating the Scoping Plan to meet the 2030 GHG reduction target codified in SB 32. CARB published California's 2017 Climate Change

Scoping Plan Update in November 2017. The 2017 Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target. Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State’s emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikeable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce “super pollutants” by reducing methane and hydrofluorocarbons by 40 percent.

As presented in the 2017 Scoping Plan, various changes and measures are needed to achieve the 2030 target. The Scoping Plan has established a proposed reduction scenario that requires specific reductions through programs and changes to fossil fuel consumption. Based on the Scoping Plan scenario, a significant portion of GHG emission reductions will result from statewide programs and existing and proposed policies, including Cap and Trade, a doubling of energy efficiency as required by SB 350, Renewable Portfolio Standard requirements, and Low Carbon Fuel standards. Other significant reductions will be achieved through an increase in zero-emission vehicles, trucks and buses.

Assembly Bill 1279

Assembly Bill 1279 requires the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter. The bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels, and directs the California Air Resources Board to work with relevant State agencies to achieve these goals.

Senate Bill 1020

Senate Bill 1020 adds interim targets to the policy framework originally established in Senate Bill 100, requires State agencies to rely on 100% renewable energy and zero-carbon resources to serve their own facilities by 2030, and establishes a Climate and Equity Trust fund to address rising electricity rates that threaten the affordability of basic service and undermine the economics of beneficial building and transportation electrification.

Regional and Local

BAAQMD CEQA Guidelines and 2017 Bay Area Clean Air Plan

BAAQMD identifies thresholds of significance for operational GHG emissions from land-use development projects in its guidelines. These guidelines include recommended significance thresholds, assessment methodologies, and mitigation strategies for GHG emissions. Under the Guidelines, if a project would result in operational-related GHG emissions of 1,100 metric tons, or 4.6 metric tons per service population (i.e., residents and employees) of CO₂e per year or more, it would make a cumulatively considerable contribution to GHG emissions and result in a cumulatively significant impact

to global climate change. In jurisdictions where a qualified Greenhouse Gas Reduction Strategy has been reviewed under CEQA and adopted by decision-makers, compliance with the Greenhouse Gas Reduction Strategy would reduce a project's contribution to cumulative GHG emission impacts to a less-than-significant level. The Guidelines also outline a methodology for estimating GHGs.¹⁸

The Clean Air Plan is a multi-pollutant plan that addresses GHG emissions along with other air emissions in the Bay Area Air Basin. One of the key objectives in the Clean Air Plan is climate protection. The Clean Air Plan includes emission control measures in five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures, Land Use and Local Impact Measures, and Energy and Climate Measures. Consistency of a project with current control measures is one measure of its consistency with the Clean Air Plan. The current Clean Air Plan also includes performance objectives, consistent with the state's climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHGs to 1990 levels by 2030 and 80 percent below 1990 levels by 2050.¹⁹

Oakland 2030 Equitable Climate Action Plan

Adopted in 2020, the Oakland 2030 ECAP sets forth a detailed, equitable path toward cost-effectively reducing Oakland's local GHG emissions by a minimum of 56% below baseline 2005 GHG emission levels by 2030, transitioning away from fossil fuel dependence, removing carbon from the atmosphere through local projects, and ensuring that all of Oakland's communities are resilient to the foreseeable impacts of climate change by 2030. The current statewide goal pursuant to Senate Bill (SB) 32 is to reduce California's GHG emissions to 40 percent below 1990 levels by 2030. Instead, every new development project must comply with the ECAP Checklist. The ECAP Consistency Checklist includes topics such as consistency with the General Plan, parking limitations to reduce vehicle trip generation, electric vehicle charging infrastructure requirements, and all electric buildings (i.e., no natural gas connections). If a project can demonstrate compliance with the ECAP Consistency Checklist items, or alternatively demonstrate to the City's satisfaction that the Checklist items are not applicable, then the project would be considered in compliance with the City's 2020 CEQA GHG threshold of significance.

Impact Discussion

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

Construction

Less than Significant. BAAQMD has not established a threshold for construction-period GHG emissions. Project-related construction emissions are confined to a short period in relation to the overall life of the project. Based on BAAQMD's guidelines and the short nature of construction, GHG emissions during construction would be minor and temporary. Thus, GHG emissions from project construction are considered less than significant, and no mitigation is required.

Operation

Less than Significant. Operation of the project would result in emissions similar to existing conditions. Operation of the project would not change the frequency or speed of existing trains or affect the volume

¹⁸ Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed April 2023.

¹⁹ Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. Available: https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed April 2023.

of vehicles using the crossings. As such, GHG emissions from operation of the project would be less than significant, and no mitigation is required.

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

Less than Significant. The project would not conflict with an applicable local plan, policy or regulation adopted for the purpose of reducing the emission of GHGs. Key planning and policy documents in the City include the General Plan, Clean Air Plan, and ECAP. Relevant policies and goals are listed above. The project would not conflict with the ECAP as project-related construction would be minimal, short, and temporary in nature. Additionally, energy use during operation (and GHG emissions associated with such energy use) would be roughly equivalent to existing conditions. As the project is consistent with the goals and policies of the General Plan, Clean Air Plan, and CAP, the impact would be less than significant, and no mitigation is required.

4.9 Hazards and Hazardous Materials

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The following discussion qualitatively analyzes potential impacts from the potential hazardous materials adjacent to the existing crossings, and from use, transport, and disposal of hazardous materials.

Potential Sources of Contamination

The existing crossings are located in industrial, commercial, and residential areas. Surrounding land uses generally consist of commercial and industrial operations, and single- and multi-family developments. Based on a desktop search of the California Department of Toxic Substances Control (DTSC), Envirostor database, and the SWRCB Geotracker website, the crossings would be constructed in areas where potential contamination sources could occur.

Within a 1,000-foot radius of the 29th Avenue crossing, three sites contain hazardous waste: Safe Storage USA (located immediately adjacent to the north), a former gas station (located approximately 300 feet to the northeast), and Latitude High School / Epic Middle School (located approximately 100 feet to the east). The Storage USA site is planned for re-development and currently has a long-term

management plan in place for arsenic and lead contamination in soil. Latitude High School / Epic Middle School was formerly a Caltrans Maintenance Station. A Site Cleanup Program case has been opened to provide environmental regulatory oversight as the site has been developed for use as a school.

There is one site within a 1,000-foot radius of the Fruitvale crossing that contains hazardous waste: the Fruitvale BART Station site, located approximately 400 feet to the northeast. The contaminants of concern are arsenic and lead. Metals were detected in the area of a former railway corridor beneath the Fruitvale BART station parking structure. The case remains open pending confirmation of disposal and management of impacted soil.

Within a 1,000-foot radius of the 37th Avenue crossing, three sites contain hazardous waste: a Chevron Gas station (located approximately 5000 feet northeast), a Foreman property (located approximately 300 feet to the southeast), and a property under redevelopment (located approximately 600 feet to the southeast). Site investigations and remediation are on-going for the Chevron Gas station. The property under redevelopment has been under regulatory environmental oversight by the Alameda County Department of Environmental Health for the investigation and cleanup activities associated with this site since February 2019. The contaminant of concern on the Foreman property is lead. Although there is limited information on Geotracker regarding this facility, it is considered a site of environmental concern given its proximity to the project site.

There are three sites within a 1,000-foot radius of the 50th Avenue Crossing that contain hazardous waste: a AAA Equipment Company (located immediately adjacent to the west of the 50th Avenue Crossing), the City of Oakland Municipal Service Yard, (located immediately adjacent to the south of the 50th Avenue crossing), and an unoccupied building (formerly Dutch Boy #3), (located approximately 700 feet to the northwest of the 50th Avenue crossing). Remediation and groundwater monitoring are ongoing for the AAA Equipment Company site, and the Oakland Municipal Service Yard. For the unoccupied building, a land use covenant and environmental restriction was recorded for the property in December 2008, which prohibits the use of residential, hospital, school or day care.

Regulatory Setting

State

In California, the U.S. EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). In turn, local agencies including the Oakland Fire Department and the Alameda Department of Environmental Health (ACDEH) have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency program.

Department of Toxic Substances Control and Regional Water Quality Control Board

The DTSC regulates hazardous waste and remediation of existing contamination and evaluates procedures to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code. The San Francisco Bay Regional Water Quality Control Board (RWQCB) also provides regulatory oversight for sites with contaminated groundwater or soils.

Government Code Section 65962.5 (Cortese List)

Section 65962.5 of the Government Code requires the CalEPA to develop and annually update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by DTSC and the SWRCB.

Local

Oakland General Plan

The Safety Element of the Oakland General Plan outlines policies related to hazards and hazardous materials:²⁰ Based on a review of the General Plan goals and policies, the following policies and actions are determined to be applicable to the project:

- Policy HM-1* Minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials.
- Action HM-2.1* Continue to enforce performance standards controlling the emission of air contaminants, particulate matter, smoke and unpleasant odors.
- Action HM-3.3* Support state and federal legislative efforts that seek to increase the safety of transporting hazardous materials.

Impact Discussion

The information in this section is based on the Hazardous Materials Technical Memo prepared for this project by Kimley Horn on August 17, 2022.²¹

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

Less than Significant. Construction of the project would involve the use of materials that are regarded as hazardous, such as gasoline, hydraulic fluids, paint, and other similar materials. Operation of the project would not require the use or storage on-site of cleaning supplies in small quantities. No hazardous materials would be used or stored on-site.

In accordance with federal and state law, the project would be required to disclose hazardous materials handled at reportable amounts. The small quantities of hazardous materials used during construction would not pose a risk to site users or adjacent land uses. Additionally, the project applicant would be required to prepare an emergency response and evacuation plan, conduct hazardous materials training (including remediation of accidental releases), and notify employees who work in the vicinity of hazardous materials, in accordance with the Federal Occupational Health and Safety Administration and California Division of Occupational Safety and Health requirements. Therefore, impacts related to the routine transport, use, or disposal of hazardous materials during construction and operation would be less than significant, and no mitigation is required.

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

Less than Significant. Construction of the project would include ground clearing, grading, sidewalk removal and replacement, and other construction activities, which may require the limited use of hazardous materials such as fuels, oils, solvents, glues, paint and building material finishing products. Such materials would be used temporarily and typically do not generate hazardous air pollutant emissions or pose a long-term threat to human health or the environment. The use of such products

²⁰ City of Oakland, 2004. Oakland General Plan, Safety Element. Available at: <https://www.oaklandca.gov/resources/safety-element>. Accessed October 2022.

²¹ Kimley Horn. 2022. Alameda County Rail Safety Enhancement Program – Hazardous Materials Technical Memo: Oakland Crossings IS/MND.

would not reasonably result in an accidental release of hazardous materials into the environment. Conditions at the crossings during operation of the project would be similar to the existing conditions of the crossings and would not handle or emit hazardous materials, substances, or waste. Thus, this impact would be less than significant, and no mitigation is required.

c) 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. Two of the project sites are within 0.25-mile (i.e., 1,320 feet) of an existing school: Latitude High School / Epic Middle School is located approximately 100 feet east of the 29th Avenue crossing, Think College Now Elementary School is located approximately 700 feet northwest of the 29th Avenue crossing, and Ascend Elementary School is located approximately 900 feet from the 37th Avenue crossing. Hazardous materials such as paints, oils, and absorbents would be used in relatively small quantities during construction of the project. However, due to the nature of the project, the use of the hazardous materials and quantities would be temporary and limited. Conditions at the crossings during operation of the project would be similar to the existing conditions and would not handle or emit hazardous materials, substances, or waste. Therefore, this impact would be less than significant, and no mitigation is required.

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?

Less than Significant with Mitigation. A search of the DTSC EnviroStor database along with a search of the RWQCB GeoTracker database shows there are no known hazardous materials or spills on the project sites. However, there are sites currently open within 1,000 feet of the project sites which could expose workers to hazardous materials. This is a potentially significant impact. Mitigation Measure HAZ-1 would require preparation of a Health and Safety Plan (HASP) prior to construction of each of the crossings.

Mitigation Measure HAZ-1: Prepare a Site-specific HASP for Construction Activities

The construction contract specifications shall provide that a licensed hazardous materials professional shall prepare a site-specific HASP for construction activities. The HASP will establish protocols for preventing uncontrolled worker exposure to contaminated media during construction. The HASP will implement the following State and federal regulations govern the protection of worker safety at potential hazardous material sites:

- Worker education and training (Hazard Communication Standard) 29 CFR 1910.1200, 1915.1200, 1917.28, 1918.90, and 1926.59, 1910.1018 (inorganic arsenic)
- Construction Safety Orders 8 CCR Division 1, Chapter 4
- Lead in Construction 8 CCR 1532.1
- General Industry Safety Orders 8 CCR 5214. Inorganic Arsenic.
- Environmental Health Standards for Management of Hazardous Waste 22 CCR Division 4.5

Upon operation of the project, no hazardous materials would be used at the crossings, and no hazardous materials would be released into the public. With implementation of **Mitigation Measure HAZ-1** at all crossing locations, this impact would be less than significant.

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

No Impact. The Oakland International Airport is located approximately 3.5 miles south of the project. The project is located outside of the 65 A-weighted decibel scale (dBA) Community Noise Equivalent Level (CNEL) noise contours for the Oakland International Airport. Therefore, no impact would occur, and no mitigation is required.

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

Construction

Less than Significant. Construction of the project would result in temporary closure of the crossings to vehicular traffic. Detours would be provided to ensure proper access for emergency vehicles. Additionally, the Emergency Operations Plan for the City of Oakland would be implemented in the case of an emergency, and the project would comply with procedures determined by the Emergency Operations Plan, if such an event arose.²² Therefore, the project would not conflict with an adopted emergency response or evacuation plan and the impact would be less than significant and no mitigation is required.

Operation

No Impact. The project would not change the local roadway circulation pattern in a way that would physically interfere with local emergency response plans. Instead, the project would improve safety by restricting access to UPRR tracks, improving signage and accessibility, and other safety features. As the project would not change roadways, local roadway circulation would remain at existing levels and would facilitate implementation of emergency response plans and emergency evacuation plans. Therefore, no impact would occur, and no mitigation is required.

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

No Impact. The project is located in a developed urban area that does not contain wildland areas. The existing crossings are not located adjacent to natural areas that would be subject to wildland fires. The project would not result in any significant exposure of people or structures to wildland fires. Therefore, no impact would occur, and no mitigation is required.

²² City of Oakland. 2021. *2021 Emergency Operations Plan Update*. Available at: <https://www.oaklandca.gov/topics/2021-eop-update>. Accessed November 2022.

4.10 Hydrology and Water Quality

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The following discussion qualitatively analyzes potential impacts on the hydrological area surrounding the project site.

Water Supply

Water for the City of Oakland is provided by the East Bay Municipal Utility District (EBMUD). Ninety percent of EBMUD's potable water comes from the 577-square mile watershed of the Mokelumne River on the western slope of the Sierra Nevada.

EBMUD approved and adopted an Urban Water Management Plan and Water Shortage Contingency Plan in June 2021.

Stormwater

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the US EPA and the SWRCB have been developed to fulfill the requirements of this legislation. US EPA's regulations include the NPDES permit program, which controls sources that discharge pollutants into waters of the US (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by water quality control boards, which for the City is the San Francisco Bay RWQCB.

Additionally, the crossings are defined as small projects as established by RWQCB provision C3.i and governed by the Alameda County Stormwater Control guidelines. These guidelines define small projects as those which create or replace at least 2,500 square feet but less than 10,000 square feet of impervious surface. For projects over 10,000 square feet post-construction stormwater treatment is required.

Groundwater

Fluctuations in groundwater levels are common due to seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors. The project site is located within the East Bay Plain Groundwater Basin.

Tsunamis and Seiches

The project site is located outside of the Tsunami hazard area and is not susceptible to inundation by tsunamis and seiches.

Regulatory Setting

Federal

The Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry, and has made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. The EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100- year flood.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the NFIP, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify flood hazard zones within a community. FIRMS designate 100-year floodplain zones and delineate other flood hazard areas. A 100-year floodplain zone is the area that has a one in one hundred (1 percent) chance of being flooded in any one year based on historical data. Areas subject to the 1 percent flood are designated as Zone AE,

A, AH, or AO on the FEMA FIRMS. The project site is in Flood Zone X, which is defined as an area of 0.2% annual chance flood hazard, and areas of 1% annual chance flood with average depth less than one foot.²³

State

Statewide Construction General Permit

The SWRCB has implemented a NPDES General Construction Permit for the State of California. projects that would disturb more than one acre of land are required to submit a Notice of Intent and a SWPPP to the SWRCB to apply for coverage under the NPDES Construction and Land Disturbance General Permit. Construction activities subject to this permit include grading, clearing, or any activities that cause ground disturbance such as stockpiling or excavation. The SWPPP will include the site-specific BMPs to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP also contains a summary of the structural and non-structural BMPs to be implemented during the post-construction period.

Regional and Local

National Pollutant Discharge Elimination System Permit Program

The NPDES permit program controls sources that discharge pollutants into waters of the United States (e.g., streams, lakes, bays, etc.). For the City, these regulations are implemented at the regional level by the San Francisco Bay RWQCB. The RWQCB is responsible for protecting the quality of surface water and groundwater by issuing and enforcing compliance with the NPDES permits and by preparation and revision of the relevant RWQCB Plan, also known as the Basin Plan.

Alameda County Clean Water Program

To protect the San Francisco Bay, as well as rivers and creeks, construction projects in the City of Oakland are required to comply with the Alameda County Clean Water Program. The measures of the Clean Water Program, designed to protect water quality by minimizing land disturbances and impervious surfaces, encourage infiltration into landscape and direct runoff into vegetated areas. All development projects within the City, regardless of size, must implement construction BMPs for reducing runoff during construction. BMPs include, but are not limited to:

- Temporary erosion controls to stabilize all denuded areas until permanent erosion controls are established.
- Delineate with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.
- Provide notes, specifications, or attachments describing the following:
- Construction, operation and maintenance of erosion and sediment controls, include inspection frequency;
- Methods and schedule for grading, excavation, filling, clearing of vegetation, and storage and disposal of excavated or cleared material;

²³ FEMA. 2014. FEMA Flood Map Service Center. Available: <https://msc.fema.gov/portal/search?AddressQuery=101%20South%20Jackson%20Avenue%20San%20Jose%20CA%20#searchresultsanchor>. Accessed March 2021.

- Specifications for vegetative cover & mulch, include methods and schedules for planting and fertilization;
- Perform clearing and earth moving activities only during dry weather.
- Use sediment controls or filtration to remove sediment when dewatering and obtain all necessary permits.
- Protect all storm drain inlets in vicinity of site using sediment controls such as berms, fiber rolls, or filters.
- Trap sediment on-site, using BMPs such as sediment basins or traps, earthen dikes or berms, silt fences, check dams, soil blankets or mats, covers for soil stock piles, etc.
- Protect adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
- Limit construction access routes and stabilize designated access points.
- No cleaning, fueling, or maintaining vehicles on-site, except in a designated area where washwater is contained and treated.
- Store, handle, and dispose of construction materials/wastes properly to prevent contact with stormwater.
- Contractor shall train and provide instruction to all employees/subcontractors regarding construction BMPs.
- Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, washwater or sediments, rinse water from architectural copper, and non-stormwater discharges to storm drains and watercourses.
- Divert on-site runoff around exposed areas; divert off-site runoff around the site (e.g., swales and dikes).

C.3 Stormwater Technical Guidance, Version 7.

C.3 Stormwater Technical Guidance, Version 7 is an Alameda Countywide Clean Water Program handbook meant to for developers, builders and project applicants, that help developers, builders, and project sponsors include post-construction stormwater controls in their projects, in order to meet local municipal requirements and State requirements in the Municipal Regional Stormwater NPDES Permit (MRP). The municipalities have to require post-construction stormwater controls as part of their obligations under Provision C.3 of the MRP.

Watershed Acquisition and Preservation Program

The 2002 Program evaluates properties based on a variety of factors including their potential to improve and protect water quality and habitat, linkages to existing open space or habitat, and community support. Priority examples might include areas of large intact habitats that would be significantly impacted by development that could fragment habitat and/or significantly impact hydrological functions up and/or downstream.²⁴

²⁴ City of Oakland, 2002. *Watershed Acquisition and Preservation Program*. Available: <https://www.oaklandca.gov/resources/watershed-acquisition-and-preservation-program>. Accessed: March 2023.

Oakland General Plan

Based on a review of the water resources policies outlined in the Open Space, Conservation, and Recreation element of the Oakland General Plan, the following objective, policy, and action are applicable to the project:²⁵

- Object CO-4* Water Supply. To maintain a water supply sufficient to meet local needs while minimizing the need to develop new water supply facilities.
- Policy CO-5.3* Control of urban Runoff. Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards;" and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.
- Action CO-5.3.5* Mitigation of Road Construction and Dredging Impacts. Continue to use the environmental review process to ensure that future road construction and dredging projects incorporate measures to protect water quality in potentially impacted lakes, creeks, wetlands, and nearshore waters. Consider developing standard mitigation measures for future road improvement and dredging projects in collaboration with Ca/trans and the Port.

Oakland Municipal Code

After a review of the Oakland Municipal Code, it was determined that that the following policies are applicable to the project:

Section 13.080.150. Prohibited uses generally- Wastewater. No person shall discharge, deposit, throw, or cause, allow, or permit to be discharged, deposited, or thrown, into a building sewer or the sanitary sewer system, any substance of any kind whatsoever which shall cause or tend to cause an obstruction or damages to the sewer system, or which shall cause or tend to cause a nuisance or hazard, or which will in any manner obstruct or tend to obstruct the efficient operation or maintenance of the sewer system. Wastewater may not be discharged to the collection system that would cause a violation of the water quality limitations or preclude the selection of the most cost-effective alternative for wastewater treatment and sludge disposal.

Federal and state statutes governing wastewater and water discharges into the collection system supersede all requirements and provisions of this section and Sections 13.08.160 through 13.08.180, therefore, the Director of Public Works shall neither approve nor permit any wastewater discharges into the collection systems that are in violation of these statutes, notwithstanding any provisions in this chapter to the contrary.

Section 9.16.040. Watercourses. It is unlawful for any person to place, install, construct or maintain, or to cause or permit the installation, construction or maintenance of, any structure or obstruction, within, contiguous to, or across, or to change the course or meander lines of, or to discharge any industrial wastes or processing waters into, any watercourse within the city without first having obtained a permit therefor from the Director of Public Works/Superintendent of Streets upon written application therefor.

²⁵ City of Oakland, 1996. City of Oakland General Plan, Open Space Conservation and Recreation Element, 1996. Available at: <https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf>. Accessed October 2022.

Such permit shall be granted only after the completion by the applicant of all the conditions of Section 12.20.020 of this code.

Impact Discussion

The information in this section is based on the Water Quality and Drainage Memo prepared for this project by Kimley Horn in August 2022.²⁶

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

Less than Significant. The project would result in very little increase in impervious surfaces as the existing crossings are located in developed areas. The four crossings are small projects as described in the MRP and would include post construction BMPs to minimize runoff and pollutants conveyed in that runoff. As less than one acre of land would be disturbed during construction, the project would not be subject to a state NPDES permit. The project would be required to comply with Alameda County Stormwater Quality BMPs and Alameda County Stormwater Control guidelines to avoid and minimize pollutant discharge during construction.

During operation, the project would employ stormwater source controls to reduce the likelihood of contaminations from litter, pesticides, fertilizers, and petroleum drippings from automobiles. The source controls will require that all drainage will drain to bio-retention areas prior to discharging to the storm drain system; storm drain inlets will be clearly marked “No Dumping, Drains to Bay”; on-site storm drains will be cleaned annually, prior to the rainy season; and landscaping will be designed to minimize the need for irrigation, pesticide, and fertilizer use. With adherence to these BMPs and guidelines, the impact would be less than significant, and no mitigation is required.

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

No Impact. The project would improve safety to existing railroad crossings and would operate similar to existing conditions. The project would not require the use of water during operation. As such, the project would not decrease groundwater supplies or interfere with groundwater recharge. Therefore, there would be no impact, and no mitigation is required.

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

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

Less Than Significant. Compliance with Alameda County Stormwater Control guidelines will require BMPs to be installed and monitored throughout construction; therefore, the project would not result in substantial erosion or siltation on- or off-site. 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 off-site?

Less Than Significant. As discussed above, the project would disturb less than an acre of land at each of the four crossings and would not be subject to a state NPDES permit. The four crossings are small

²⁶ Kimley Horn. 2022. Alameda County Rail Safety Enhancement Program- Water Quality Drainage Memo. Oakland Crossings IS/MND.

projects as described in the MRP and would include post construction BMPs to minimize runoff and pollutants conveyed in that runoff. No improvements to the drainage conveyance system (inlets and underground pipe) are required based upon the proposed construction because discharge and stormwater runoff from the project would be minimal. 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?

Less Than Significant. The project would follow Alameda County Stormwater Quality BMPs and Alameda County Stormwater Control guidelines to limit potential impacts from runoff and source control measures. Therefore, impacts would be less than significant.

iv. impede or redirect flood flows?

Less than Significant. The project would follow Alameda County Stormwater Quality BMPs and Alameda County Stormwater Control guidelines to limit potential impacts from runoff and source control measures. The Water Quality and Drainage Memorandum conducted for the project concluded that there are no impacts to stormwater drainage systems and implementation of the project would not impede or redirect flood flows. Therefore, the impact would be less than significant, and no mitigation is required.

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

Less than Significant. The project is located within FEMA Flood Zone X, which is defined as an area of 0.2% annual chance flood hazard, and areas of 1% annual chance flood with average depth less than one foot. The existing crossings are within a Tsunami Hazard Area which has the potential for inundation during a tsunami. However, tsunami waves and flooding have historically resulted in little damage around the Bay. Therefore, risks associated with tsunamis and seiches would be less than significant. Additionally, construction of the project would not introduce any additional pollutants to the existing crossings. Therefore, the risk from flood hazards, tsunami, and seiches would be less than significant, and no mitigation is required.

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

Less than Significant. Construction of the project would comply with Alameda County Stormwater Quality BMPs and the Alameda County Stormwater Control guidelines. With adherence to these BMPs and guidelines, the impact would be less than significant, and no mitigation is required.

4.11 Land Use and Planning

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Within Oakland, land use and zoning surrounding the crossings consist of Oakland General Plan designated general industrial zoning and commercial housing and business mix uses. The project site consists of mostly impervious surfaces including paved portions of 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue, with existing railroad gates and signs.

Regulatory Setting

Local

Oakland General Plan

All future development allowed by the proposed land use designations would be subject to the policies listed in the Oakland General Plan:²⁷ Based on a review of the General Plan goals and policies, the following policy is determined to be applicable to the project:

<i>Policy E2</i>	Include transit, provision of alternative transportation and parking, as integral parts of the planning and development review process.
<i>Policy T2.1</i>	Encouraging Transit-Oriented Development. Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
<i>Policy T2.2</i>	Guiding Transit-Oriented Development. Transit-oriented developments should be pedestrian oriented, encourage night and daytime use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.

Impact Discussion

a) Physically divide an established community?

No Impact. Projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad corridors. The project would be located in

²⁷ City of Oakland, 1996. City of Oakland General Plan, 1996. Available at: <https://www.oaklandca.gov/topics/city-of-oakland-general-plan>. Accessed October 2022.

developed areas surrounded by predominantly commercial and industrial land uses. The project would be compatible with the pattern of surrounding land uses and would not physically divide an established community. Instead of dividing an established community, the project would improve safety elements at existing railroad crossings. The project would improve safety in the area and contribute to the cohesion of established communities. Therefore, no impact would occur, and no mitigation is required.

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?

No impact. The project would be consistent with existing zoning designations. The project would not require any rezoning and would improve safety at existing railroad crossings. The project has been designed in accordance with applicable City regulations. The project would be consistent with both the Oakland General Plan land use designation and local zoning and the project would not conflict with any applicable land use plans, policies, or regulations. Therefore, there would be no impact, and no mitigation is required.

4.12 Mineral Resources

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

According to the Mineral Land Classification Map for Alameda and San Francisco Counties, the mineral resource topography for the City is generally MRZ-1.²⁸ MRZ-1 areas are where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

Regulatory Setting

State

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition.²⁹

SMARA also encourages the production, conservation, and protection of the state's mineral resources. Public Resources Code Section 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations.

Impact Discussion

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

No Impact. The project is located within an area classified as MRZ-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. Given this, implementation of the project would not disturb protected mineral resources. Therefore, no impact would occur, and no mitigation is required.

²⁸ California Department of Conservation. Mineral Resource Zones and Resource Sectors Alameda County. Available: [CGS Information Warehouse \(ca.gov\)](#). Accessed October 2022.

²⁹ The California Department of Conservation. 2019. SMARA Statutes and Regulations. 2019. Available: <https://www.conservation.ca.gov/dmr/lawsandregulations>. Accessed March 2021.

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

No Impact. As mentioned, the project is located within an area classified as MRZ-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. Given this, implementation of the project would not disturb protected mineral resources. Therefore, no impact would occur, and no mitigation is required.

4.13 Noise and Vibration

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Noise is typically described as any unwanted or objectionable sound and is technically described in terms of the loudness of the sound (amplitude) and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). However, because the human ear is not equally sensitive to sound at all frequencies, the A-weighted dBA, which gives greater weight to the frequencies of sound to which the human ear is most sensitive, was devised to relate noise to human sensitivity.

The dBA measurement system is not an effective way to measure noise levels within a community, since community noise is always fluctuating and changing. Therefore, other methods of describing noise levels have been developed, the most common of which are the CNEL and the Day-Night Noise Level (L_{dn}). L_{dn} is an average of all noise levels recorded over a 24-hour period, with a 10-dB penalty for nighttime noise that occurs between 10:00 p.m. and 7:00 a.m. CNEL is also an average sound level over a 24-hour period, with a 10 dB penalty added for noise between 10:00 p.m. and 7:00 a.m. and an additional 5 dB penalty added for the evening hours of 7:00 p.m. to 10:00 p.m.

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance.

The project site is located in an urban area near I-880. As described in Section 3.2, Site Conditions, the surrounding land uses include a mix of commercial and residential uses. Table 8 lists the distances and locations of the nearby sensitive receptors. Additionally, the locations of the sensitive receptors are shown in Figure 7.

The primary sources of existing noise in the project vicinity are those associated with the operations of railway and rail crossing and vehicle traffic noise. The surrounding land uses are predominately commercial and industrial uses. Sensitive receptors near the crossings include schools and residential developments. Table 8 lists the distances and locations of the nearby sensitive receptors for each of the crossings.

Table 8 Sensitive Receptors

Crossing	Closest Sensitive Receptor Description	Approximate Distance and Direction from the Crossing¹
29 th Avenue	Latitude High School / Epic Middle School	115 feet east; 430 feet east
Fruitvale Avenue	Residential	190 feet southeast
37 th Avenue	Residential	105 feet east
50 th Avenue	Residential	300 feet east

Notes: ¹Distances are rounded to the nearest 100 and are measured from the project site to the sensitive receptor property line
Source: Google Earth, 2022.

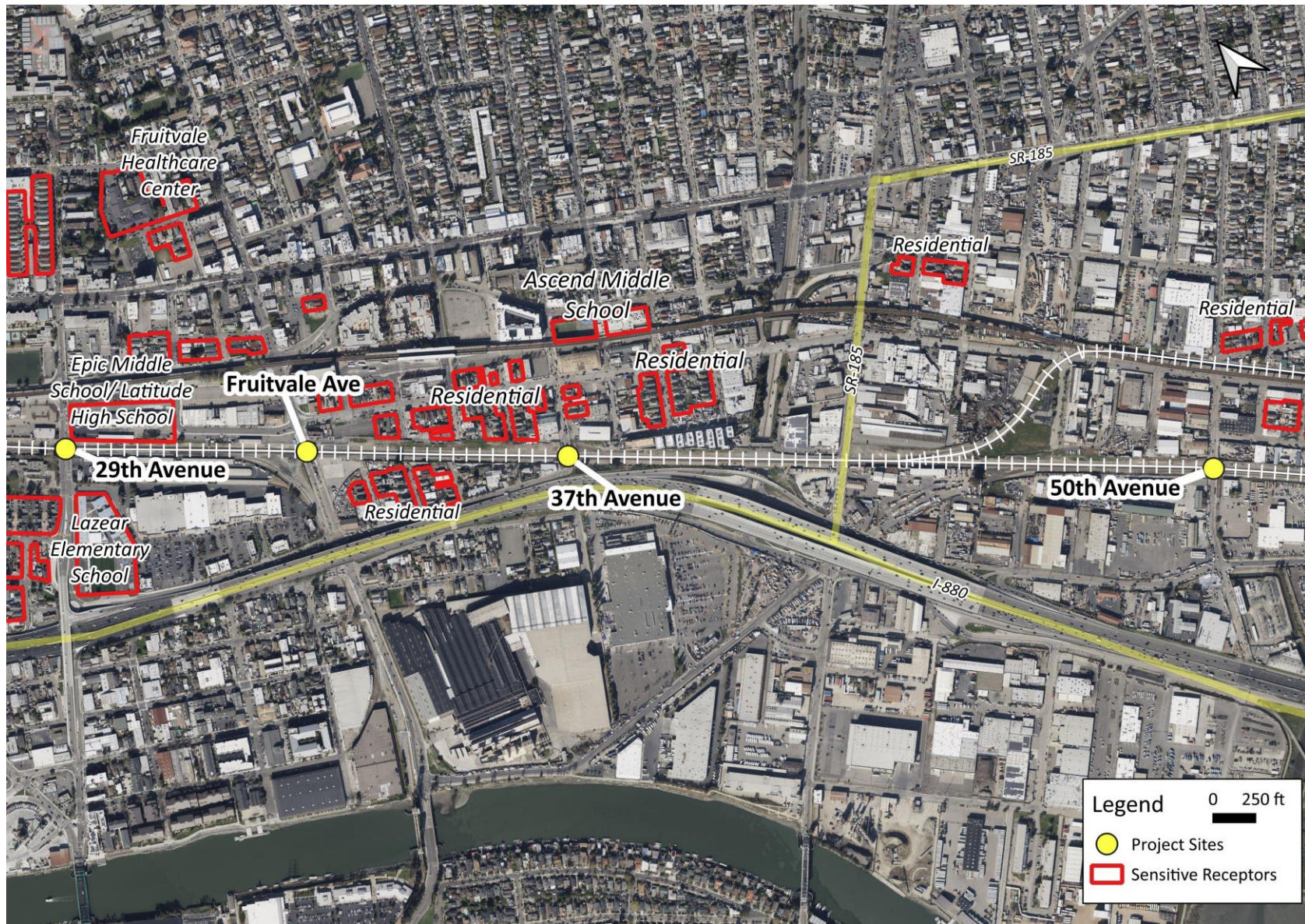


Figure 7: Noise Sensitive Receptor Locations

Regulatory Setting

Federal

Federal Transit Administration

Recommendations in the FTA’s Transit Noise and Vibration Impact Assessment Manual (2018) can be used as guidance to determine whether or not a change in traffic would result in a substantial permanent increase in noise. Under the FTA standards, the allowable noise exposure increase is reduced with increasing ambient existing noise exposure, such that higher ambient noise levels have a lower allowable noise exposure increase. Table 9 S shows the significance thresholds for increases in traffic-related noise levels. These standards are applicable to a project’s impact on existing sensitive receptors.

Table 9 Significance of Increases in Exposure to Traffic Noise

Existing Noise Exposure (dBA ¹ L _{dn} or L _{eq} ²)	Allowable Noise Exposure Increase (dBA L _{dn} or L _{eq})
45-49	7
50-54	5
55-59	3
60-64	2
65-74	1
75+	0

Source: Federal Transit Administration 2018

Notes: ¹Calculated using the inverse square law formula for sound attenuation: dBA2 +20Log (d1/d2) where: dBA2 = estimated noise level at receptor; dBA1 = reference noise level; d1 = reference distance; d2 = receptor location distance

²L_{dn}= day-night sound level, L_{eq}= hourly equivalent sound level

Vibration

The FTA has published standard vibration velocities for construction equipment operations. In general, depending on the building category of the nearest buildings adjacent to the potential pile driving area, the potential construction vibration damage criteria vary. For example, for a building constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 inch per second (in/sec) peak particle velocity (PPV) is considered safe and would not result in any construction vibration damage. In general, the FTA architectural damage criterion for continuous vibrations (i.e. 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on soil composition and underground geological layer between vibration source and receiver..

Local

Oakland Municipal Code

After a review of the Oakland Municipal Code, it was determined that that the following policies are applicable to project:

Section 8.18.020 of the Oakland Municipal Code declares that failure to comply with the following shall constitute a nuisance in violation of the code:

- All construction equipment powered by internal combustion engines shall be properly muffled and maintained
- Unnecessary idling of internal combustion engines is prohibited
- All stationary noise- generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences
- Quiet construction equipment, particularly air compressors, are to be selected whenever possible
- Use of pile drivers and jack hammers shall be prohibited on Sundays and holidays, except for emergencies and as approved in advance by the Building Official

Section 17.120.050 of the Oakland Municipal code declares that all activities shall be so operated that the noise level inherently and regularly generated by these activities across real property lines shall not exceed the applicable values indicated in Subsection A, B, or C. as modified where applicable by the adjustments indicated in Subsection D or E.

- The maximum allowable noise levels received by any residential zone are described in Table 17.120.01 of the OMC.
- The maximum allowable noise levels received by any land use activity within any Commercial zone are described in table 17.120.02 of the OMC.
- The daytime noise level received by any Residential, Commercial, or Industrial land use which is produced by any nonscheduled, intermittent, short-term construction or demolition operation (less than ten (10) days) or by any repetitively scheduled and relatively long-term construction or demolition operation (ten (10) days or more) shall not exceed the maximum allowable receiving noise levels described in Table 17.120.04 of the OMC.
- The nighttime noise level received by any land use and produced by any construction or demolition activity between weekday hours of seven (7) p.m. and seven (7) a.m. or between eight (8) p.m. and nine (9) a.m. on weekends and federal holidays shall not exceed the applicable nighttime noise level standards outlined in this Section.
- All construction activity including grading in a residential area is allowable from 7:00 am to 9:00 pm at 70 dB for five minutes maximum sound level in one hour.

Section 17.120.050 of the Oakland Municipal code outlines construction noise vibration standards that apply to the project:

Policy G Temporary Construction or Demolition Which Exceed the Following Noise Level Standards. The daytime noise level received by any Residential, Commercial, or Industrial land use which is produced by any nonscheduled, intermittent, short-term construction or demolition operation (less than ten (10) days) or by any repetitively

scheduled and relatively long-term construction or demolition operation (ten (10) days or more) shall not exceed the maximum allowable receiving noise levels as shown in Table 10 O.

Table 10 Oakland Maximum Allowable Receiving Noise Level Standards, dBA

	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
Short-Term Operation		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Operation		
Residential	65	55
Commercial, Industrial	70	60

Source: City of Oakland

Section 17.120.060 Oakland Municipal Code outlines the following vibration policy:

All activities, except those located within the M-40 Zone, the D-CE-1, D-CE-2, D-CE-5, or D-CE-6 Zones, or in the D-CO, IG, M-30, or CIX Zones are more than 400 feet from any Residential Zone boundary, and shall be so operated as not to create a vibration which is perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities. Ground vibration caused by motor vehicles, trains, and temporary construction or demolition work is exempted from this standard.

Oakland General Plan

The noise element of the Oakland General Plan analyzes and quantifies the existing and projected noise levels from noise sources such as traffic, commercial and aviation activities, and includes implementation measures to address any foreseeable noise problems.³⁰ Based on a review of the General Plan policies and actions the following policies and actions are determined to be applicable to the project:

- POLICY 1** Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.
- ACTION 1.1** Use the noise-land use compatibility matrix (Figure 6 of the Oakland General Plan) in conjunction with the noise contour maps (especially for roadway traffic) to evaluate the acceptability of residential and other proposed land uses and also the need for any mitigation or abatement measures to achieve the desired degree of acceptability.
- ACTION 1.2** Continue using the City’s zoning regulations and permit processes to limit the hours of operation of noise-producing activities which create conflicts with residential uses and to attach noise-abatement requirements to such activities.

³⁰ City of Oakland, 2005. Oakland General Plan, Noise Element. Available at: <https://cao-94612.s3.amazonaws.com/documents/oak070995.pdf>. Accessed October 2022.

- POLICY 2* Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.
- ACTION 2.1* Review the various noise prohibitions and restrictions under the City’s nuisance noise ordinance and revise the ordinance if necessary.
- POLICY 3* Reduce the community’s exposure to noise by minimizing the noise levels that are received by Oakland residents and others in the City. (This policy addresses the reception of noise whereas Policy 2 addresses the generation of noise.)

Impact Discussion

Information in this section is based on the Acoustical Analysis prepared for this project by Kimley Horn in September 2022.³¹

- 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?**

Construction

Less than Significant with Mitigation. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods surrounding the construction site. As shown in Table 11, the closest sensitive receptors are located between approximately 100 feet and 300 feet from the crossings. However, construction activities would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery. During construction, exterior noise levels could affect the residential neighborhoods near the construction site.

Construction activities associated with development of the project would include demolition, site preparation, grading, and paving. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during construction; and pavers, rollers, mixers, tractors, and paving equipment during paving. Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, and scrapers. Operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute.

Pile driving would not be used during construction. Typical noise levels associated with individual construction equipment are listed in Table 11.

³¹ Kimley Horn, 2022. Alameda County Rail Safety Enhancement Program Acoustical Analysis Oakland ISMND.

Table 11 Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA)¹ at 50 Feet from the Source	Typical Noise Level (dBA) at 200 Feet from the Source
Concrete Mixer	85	73
Concrete Pump	82	70
Concrete Vibrator	76	64
Dozer	85	73
Grader	85	73
Loader	86	68
Paver	85	73
Pump	77	65
Roller	85	73
Saw	76	64
Scraper	85	73
Shovel	82	70
Truck	84	72

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Notes: ¹ Calculated using the inverse square law formula for sound attenuation: $dBA2 = dBA1 + 20 \log(d1/d2)$ Where: dBA2 = estimated noise level at receptor; dBA1 = reference noise level; d1 = reference distance; d2 = receptor location distance

The nearest sensitive receptors to the project area include the residences located approximately 105 feet east of the project site. Noise impacts for mobile construction equipment are typically assessed as emanating from the center of the equipment activity or construction site.³² For the proposed project, this center point would be conservatively approximately 200 feet from the nearest sensitive receptor structure. As shown in Table 11T, these sensitive uses may be exposed to elevated noise levels during project construction. These assumptions represent the worst-case noise scenario because construction activities would typically be spread out throughout the project site, and thus some equipment would be further away from the affected receptors. In addition, construction noise levels are not constant, and in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities. Construction noise would also be acoustically dispersed throughout the project site and will be masked by freeway noise and roadway noise.

As indicated in Table 11 T, construction noise levels from the project site would range between 64 dBA and 73 dBA at the nearest sensitive receptors located approximately 200 feet from the center point of the project site and 100 feet from the edge of the project site. The highest anticipated construction noise level of 73 dBA is expected to occur during the improvement installation and paving phases from

³² For the purposes of this analysis, the construction area is defined as the center of the project site per the methodology in the FTA Transit Noise and Vibration Impact Assessment Manual (September 2018). Although some construction activities may occur at distances closer 200 feet from the nearest properties, construction equipment would be dispersed throughout the project site during various construction activities. Therefore, the center of the project site represents the most appropriate distance based on the sporadic nature of construction activities.

the use of dozers, grader, pavers, rollers, scrapers, and concrete mixer. Therefore, construction noise would not exceed the FTA's standards of 90 dBA L_{eq} at residential uses and 100 dBA L_{eq} at commercial and industrial uses. The proposed project would be required to adhere to the Caltrans Standard Conditions that ensure that all construction equipment is equipped with properly operating and maintained mufflers and other state required noise attenuation devices, helping to reduce noise at the source. The City's noise standard prohibits construction outside the hours of 7:00 am and 7:00 pm Monday through Friday and requires long-term construction activity (more than 10 days) to remain below 65 dBA at receiving residential land uses (17.120.050). The City allows construction noise to reach 70 dBA if the noise does not last more than five minutes every hour or 75 dBA if the noise does not last for more than one minute every hour. Equipment, such as dozers, graders, pavers, and scrapers, have operating cycles of about one or two minutes on full power operation followed by three to four minutes at lower power settings. This, in addition to mufflers and noise attenuating devices required by the Caltrans and City's Standard Conditions, would ensure that construction noise levels do not exceed the City's standards and that time-of-day restrictions are adhered to. Therefore, with implementation of these conditions, construction noise impacts to nearby receptors would be less than significant.

Standard Conditions

Construction Noise Reduction Program. The applicant shall develop a site-specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include the time limits for construction listed above, as measures needed to ensure that construction complied with BMC Section 13.40.070. The noise reduction program should include, but shall not be limited to, the following available controls to reduce construction noise levels as low as practical:

- Construction equipment should be well maintained and use judiciously to be as quiet as practical.
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
- Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. Select hydraulically or electrically powered equipment and avoid pneumatically powered equipment where feasible.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when adjoining construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
- Prohibit unnecessary idling of internal combustion engines.
- If impact pile driving is required, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
- Construct solid plywood fences around construction sites adjacent to operational business, residences or other noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise.
- Erect temporary noise control blanket barriers, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Route construction related traffic along major roadways and away from sensitive receptors where feasible.

Construction Noise Management – Public Notice Required. At least two weeks prior to initiating any construction activities at the site, the applicant shall provide notice to businesses and residents within 500 feet of the project site. This notice shall at a minimum provide the following: (1) project description, (2) description of construction activities during extended work hours and reason for extended hours, (3) daily construction schedule (i.e., time of day) and expected duration (number of months), (4) the name and phone number of the project Liaison for the project that is responsible for responding to any local complaints, and (5) that construction work is about to commence. The liaison would determine the cause of all construction-related complaints (e.g., starting too early, bad muffler, worker parking, etc.) and institute reasonable measures to correct the problem. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval.

Construction Phases. The applicant shall provide the Zoning Officer with a schedule of major construction phases with start dates and expected duration, a description of the activities and anticipated noise levels of each phase, and the name(s) and phone number(s) of the individual(s) directly supervising each phase. The Zoning Officer or his/her designee shall have the authority to require an onsite meeting with these individuals as necessary to ensure compliance with these conditions. The applicant shall notify the Zoning Officer of any changes to this schedule as soon as possible.

Construction Hours. Construction activity shall be limited to between the hours of 7:00 a.m. and 6:00 p.m. on Monday through Friday, and between 9:00 a.m. and 4:00 p.m. on Saturday. No construction-related activity shall occur on Sunday or any federal holiday.

Construction Hours Exceptions. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days. The applicant shall establish a project construction website with the following information clearly accessible and updated monthly or more frequently as changes warrant:

- Contact information (i.e., "hotline" phone number, and email address) for the project construction manager
- Calendar and schedule of daily/weekly/monthly construction activities
- The final Conditions of Approval, Mitigation Monitoring and Reporting Program, Transportation Construction Plan, Construction Noise Reduction Program, and any other reports or programs related to construction noise, air quality, and traffic.

Operation

Less than Significant. During operation, the improved crossings would function similar to the existing conditions. Vehicular traffic and pedestrians would be able to use the crossings as they do under existing conditions, but with improved safety. Operation of the project would not change the frequency or speed of existing trains along UPRR tracks or effect the volume of vehicles using the crossing. Since no change

in vehicle or train trips and no new vehicle trips are generated by the project there would be no impact to operational noise as a result of project operation.

Implementation of the City’s standard conditions would reduce construction noise impacts to the extent feasible, as required by BMC Section 13.40.070. With implementation of the City’s standard conditions of approval, construction noise impacts would be reduced to a less-than-significant level. No mitigation is required.

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

Less than Significant. Construction on the project site would have the potential to result in varying degrees of temporary ground borne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground borne vibrations from construction activities rarely reach levels that damage structures.

The ground vibration levels associated with various types of construction equipment are summarized in Table 12, which lists vibration levels at 25, and 100 feet for typical construction equipment. Based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.000 to 0.089 in/sec peak particle velocity from 25-100 feet from the source of the activity.

Table 12 Typical Construction Equipment Vibration Levels

Equipment	Typical Level (dBA) 25 Feet from the Source	Typical Level (dBA) 100 Feet from the Source
Large Bulldozers	0.089	0.010
Loaded Trucks	0.076	0.009
Rock Breaker	0.059	0.001
Jackhammer	0.035	0.004
Small Bulldozer/Tractors	0.003	0.000

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018
 Notes: Calculated using the inverse square law formula for sound attenuation: $dBA2 = dBA1 + 20 \log(d1/d2)$ Where: dBA2= estimated noise level at receptor; dBA1 = reference noise level; d1 = reference distance; d2 = receptor location distance

Therefore, construction equipment vibration velocities would not exceed the FTA’s 0.20 peak particle velocity threshold. In general, other construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest residential structure. Therefore, vibration impacts associated with the project would be less than significant, and no mitigation is required.

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

Less than Significant. The Oakland International Airport is located approximately 3.3 miles southwest of the 50th Avenue crossing. The project is located outside of the 65 dBA CNEL noise contours for the Oakland International Airport. Therefore, this impact would be less-than-significant, and no mitigation is required.

4.14 Population and Housing

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Existing housing in the project site vicinity is located approximately 100 feet from 37th Avenue crossing, approximately 200 feet from Fruitvale Avenue crossing, and approximately 300 feet from 50th Avenue crossing. Multi-residential homes are located approximately 300 feet from 29th Avenue.

Impact Discussion

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

No Impact. The project is limited to transportation safety improvements at existing railroad crossings and does not include the construction of residential units or new commercial units. The project would require limited construction workers for short period of time and would not result in a substantial increase in employment such that population growth could be induced indirectly. Therefore, no impact would occur, and no mitigation is required.

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

No Impact. There are no existing residential uses on, or adjacent to, the existing crossings; therefore, the project would not displace individuals or residents, necessitating the construction of replacement housing elsewhere. Therefore, no impact would occur, and no mitigation is required.

4.15 Public Services

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Fire Protection

The Oakland Fire Department (OFD) provides fire and emergency services to residents of the City including firefighting and rescue, fire prevention and training, and emergency medical services. The OFD provides emergency response services for immediate life-threatening situations including fire suppression, hazardous materials control and rescue in Oakland. The OFD has 20 fire stations in Oakland and employs 500 full time employees. Fire Station 13 is located closest to the project site approximately 800 feet east of the 29th Avenue crossing at 1225 Derby Avenue. Fire Station 18 is located approximately 3,200 feet northeast of the 50th Avenue crossing.

Police Protection

The Oakland Police Department (OPD) provides services intended to protect life and property, prevent crime, arrest criminal offenders, and improve the quality of life in the City of Oakland. OPD employs 724 sworn officers and 77 non-sworn full-time employees. Standard response time for priority one calls (i.e., life threatening situations) is 17 minutes and 42 seconds from time of dispatch.³³

³³ Center for Public Safety Management. 2019. Police Data Analysis Report: Oakland, California. 2019. Available: <https://cao-94612.s3.amazonaws.com/documents/CPSM-Oakland-CFS-Report-Dec-2020.pdf>. Accessed October 2022.

Schools

Schools in Oakland include the public schools in the Oakland Unified School District as well as various private schools. The project site is located within the Oakland Unified School District, which operates 75 schools serving the entire City. Schools within 0.25 mile (1,320 feet) of the crossings include Latitude High School / Epic Middle School, Lazear Charter Academy, Think College Now Elementary School, and Ascend Academy.

Library Services

The Oakland Public Library has been providing public library services to the Oakland community since 1878. The library operates 16 library branches. The César E Chávez branch is approximately 700 feet from the Fruitvale Avenue crossing; and the Melrose branch is approximately 1,600 feet from the 50th Avenue crossing.

Regulatory Setting

State

Quimby Act – California Code Sections 66475-66478

The Quimby Act (California Government Code Sections 66475-66478) was approved by the California legislature to preserve open space and parkland in the state. The Quimby Act authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate parks, pay an in-lieu fee, or perform a combination of the two. As described below, the City has adopted a Parkland Dedication Ordinance and a Park Impact Ordinance, consistent with the Quimby Act.

Local

Oakland General Plan

Various policies in the Oakland General Plan have been adopted for avoiding or mitigating impacts to public services resulting from planned development within the City. All future development allowed by the proposed land use designations would be subject to the policies listed in the General Plan.³⁴ After a review of the General Plan, the following policies and actions are determined to be applicable to the project:

<i>Policy PS-1</i>	Maintain and enhance the city's capacity to prepare for, mitigate, respond to and recover from disasters and emergencies.
<i>Policy FI-1</i>	Maintain and enhance the city's capacity for emergency response, fire prevention and fire-fighting.
<i>Policy FI-2</i>	Continue, enhance or implement programs that seek to reduce the risk of structural fires.

³⁴ City of Oakland, 1998. Oakland General Plan, Land Use and Transportation. Available at: <https://www.oaklandca.gov/resources/land-use-and-transportation-element>. Accessed October 2022.

Impact Discussion

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 is currently provided at the existing crossings by the OFD. The project would adhere with current fire codes to reduce potential fire hazards and would be consistent with appropriate safety measures to minimize criminal activity. Because the project would not include housing or other uses that would induce substantial growth in the area, the project would not increase demand on fire protection providers such that new facilities would be required. Therefore, there would be no impact, and no mitigation is required.

ii. Police Protection?

No Impact. Police protection is currently provided at the existing crossings by the OPD. The project would be consistent with appropriate safety measures to minimize criminal activity. Because the project would not include housing or other uses that would induce substantial growth in the area, the project would not increase demand on police protection providers such that new facilities would be required. Therefore, there would be no impact, and no mitigation is required.

iii. Schools?

No Impact. The project would not include any residential uses. The project would include pedestrian and safety improvements at existing railroad crossings. Due to the nature of the project, safer sidewalk connectivity will provide safer pedestrian travel routes for existing residents to schools. As the project is a safety improvement project, the project would not have an impact on schools, and no mitigation is required.

iv. Parks?

No Impact. The project would not include any residential uses. The project would include pedestrian and safety improvements at existing railroad crossings. Due to the nature of the project, safer sidewalk connectivity will provide safer pedestrian travel routes for existing residents to parks, and recreational facilities. As the project is a safety improvement project, the project would not have an impact on park facilities, and no mitigation is required.

v. Other public facilities?

No Impact. Open space and other public facilities such as libraries are typically provided to serve residents within their respective jurisdictions. Given the project has no residential component, project implementation would not increase demand for other public facilities. Therefore, no impact would occur, and no mitigation is required.

4.16 Parks and Recreation

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The City contains a variety of regional and joint-use open space and recreational facilities that include natural resources, parks, playgrounds, gardens, marina facilities, and swim centers. Oakland’s park system provides traditional activities, such as sports fields, swimming pools, recreation centers, tennis and basketball courts, as well as numerous tot and school age play areas. In addition, Oakland’s parks include many unique public outdoor environments, such as the community gardens, trails, and equestrian facilities. There are several parks and recreation facilities within 0.5 miles (2,640 feet) of the crossings, except for the 50th Avenue crossing. Kennedy Tract Park is approximately 1,500 feet from the 29th Avenue crossing. Fruitvale Bridge Park is approximately 1,800 feet from both the Fruitvale and 37th Avenue crossings. Cesar Chavez Park is 2,600 feet from the 37th Avenue crossing.

Regulatory Setting

Local

Oakland General Plan

Various policies in the Open Space, Conservation, and Recreation element of the Oakland General Plan have been adopted for avoiding or mitigating impacts to public parks and recreational resources resulting from planned development within the City.³⁵ Based on a review of the General Plan, the following policies and actions are applicable to the project:

Action REC-1.3.1 Structure the “Urban Park” zoning district to place a percentage limit on the area in City parks that may be covered by structures or impervious surfaces.

Policy REC 5.2 Use a wide range of physical design solutions to improve safety at Oakland’s parks, including lighting, signage, landscape design, fencing, vandal-resistant building materials, and emergency response features.

³⁵ City of Oakland, 1996. City of Oakland General Plan, Open Space Conservation and Recreation Element, 1996. Available at: <https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf>. Accessed October 2022.

Impact Discussion

- 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. The project would not include any residential uses, nor would it result in employment related growth. The project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities. As such, there would not be an increase in the use of parks and recreational facilities. Therefore, there would be no impact on parks and recreational facilities, and no mitigation is required.

- 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?**

No Impact. As stated, the project would not include any residential uses, nor would it result in employment-related growth. The project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities. As such, there would not be an increase in the use of parks and recreational facilities. Therefore, there would be no impact on parks and recreational facilities, and no mitigation is required.

4.17 Transportation/Traffic

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be consistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The following discussion qualitatively analyzes potential impacts on the local transportation network.

Regional Access

Regional access to the existing crossings are provided by I-880, located southwest of the crossings. Primary access to and from the I-880 is provided via various on-and-off ramps near the existing crossings.

Local Access

Roadways that provide primary vehicular circulation to the existing crossings include East 12th Street, San Leandro Street, 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue. Access provided by each roadway is discussed below:

- **East 12th Street** is an east-west road that connects Lake Merritt to the Fruitvale portion of Oakland.
- **San Leandro Street** is a four-lane east-west road that connects Fruitvale Avenue to the City of San Leandro.
- **29th Avenue** is a four-lane road that connects the City of Oakland to the Park Street Bridge which connects Oakland and Alameda.
- **Fruitvale Avenue** is a north-south road that connects the Oakmore neighborhood of Oakland to Alameda where it becomes Tilden Way.
- **37th Avenue** is a north-south two-lane road in the City of Oakland.
- **50th Avenue** is a two-lane road that connect the Fremont neighborhood of Oakland to I-880.

Regulatory Setting

Oakland General Plan

The Land Use and Transportation element of the Oakland General Plan outlines adopted policies for avoiding or mitigating transportation impacts resulting from project development within the City.³⁶ After a review of the General Plan, the following policies are determined to be applicable to the project:

- Policy e2* Include transit, provision of alternative transportation and parking, as integral parts of the planning and development review process
- Policy T1.2* Improving Transportation Links. Improve all types of transportation links including the Air BART shuttle service, between the Airport and business and neighborhood activity centers and the City.
- Policy T2.1 Encouraging Transit-Oriented Development. Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
- Policy T2.2 Guiding Transit-Oriented Development. Transit-oriented developments should be pedestrian oriented, encourage night and daytime use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.
- Policy T3.5 Including Bikeways and Pedestrian Walks. The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.
- Policy T3.6 Encouraging Transit. The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan.
- Policy T3.7 Resolving Transportation Conflicts. The City, in constructing and maintaining its transportation infrastructure, should resolve any conflicts between public transit and single occupant vehicles in favor of the transportation mode that has the potential to provide the greatest mobility and access for people, rather than vehicles, giving due consideration to the environmental, public safety, economic development, health, and social equity impacts.
- Policy T 4.1 Incorporating Design Features for Alternative Travel. The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

³⁶ City of Oakland, 1998. Oakland General Plan, Land Use and Transportation. Available at: <https://www.oaklandca.gov/resources/land-use-and-transportation-element>. Accessed October 2022.

City of Oakland Pedestrian Master Plan

The 2017 City of Oakland Pedestrian Masterplan Update outlines policies that have been adopted by the City to help provide safe, comfortable, and convenient travel along and across Oakland streets, including the City's Complete Streets policy and the City of Oakland Crosswalk Policy.

Oakland Municipal Code

Section 12.04.160. Sidewalk and street obstruction. Wherever the construction, alteration or repair of a building adjacent to public streets or sidewalks, or the construction or repair of sidewalks, driveways, curbs or gutters, or other private improvement contracts or undertakings require the temporary occupancy of any portion of a public street or a public sidewalk and a permit has been granted for such occupancy pursuant to the provisions of this code or the building laws or other ordinances of the city, such permit and such occupancy shall be subject to the following conditions and requirements: The permittee shall provide and maintain such facilities as fences, barriers, "street closed" signs, lights and watchmen as may be necessary to provide adequate protection and prevent avoidable accidents to the public. Where such facilities or any of them are not provided or are out of service and an emergency exists that necessitates protective measures, the Superintendent of Streets/Director of Public Works or his or her representative may provide such facilities during the emergency, and the cost thereof shall be paid by the permittee or deducted from any deposit made with the city as a condition to the granting of such permit. The Superintendent of Streets/ Director of Public Works or his or her representative, before taking the above-mentioned emergency action, shall take all steps reasonable under the circumstances to notify the permittee, or his or her known representatives, of the existing conditions and allow said permittee to care for the same, provided he or she acts promptly and expeditiously.

Section 12.08.210 Portion of street obstructed. All materials intended for use in the permitted obstruction of streets shall be confined to and occupy only such portion of the street as the permit may designate, and all sand, dirt and other materials or debris of any kind shall be prevented from being blown or otherwise moved to any other portion of the street. No material of any kind shall be deposited in any gutterway of any street so as in any manner to obstruct the same.

Impact Discussion

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

Less than Significant. Project construction would add vehicle trips to nearby roadways as construction workers and vehicles enter and exit the crossings. However, construction related trips represent a negligible traffic increase that would cease after construction and would not permanently affect traffic circulation in the area. Once construction equipment is in place, there would be no interruptions to traffic service during the construction period. The City has adopted policies for creating safer travel for vehicles, pedestrians, and bicyclists across Oakland streets, including the Complete Streets policy and City of Oakland Crosswalk Policy. Operation of the project would be similar to existing conditions with improved safety for automobiles, pedestrians, and bicyclists at the railroad crossings. Therefore, the project is in compliance with applicable City plans, and any impacts to the circulation system will be less than significant, and no mitigation is required.

b) Conflict or be consistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant. The project has been evaluated in conformance with CEQA Guidelines Section 15064.3 and would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision

(b). Generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. For the purpose of this analysis “VMT” refers to the amount and distance of automobile travel attributable to the project. Construction related traffic impacts would be negligible and are temporary in nature. The improved crossings will function similar to existing conditions.

The project would not include land uses that represent new sources of automobile trips, such as residences, offices, or public parks. The project would improve safety at existing railroad crossings. Additionally, the project would provide safer alternative travel routes for non-motorized travelers that would generally reduce VMT. Therefore, the project would not permanently increase regional miles travelled, and this impact would be less than significant, and no mitigation is required.

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

No Impact. The project would improve safety at existing rail crossings. This would result in a beneficial impact by reducing hazards, no mitigation is required.

d) Result in inadequate emergency access?

No Impact. Emergency access to the project site would continue to be provided by existing roadways. Emergency access would be provided via 29th Avenue, Fruitvale Avenue, 37th Avenue, and 50th Avenue, respectively. The project would comply with all emergency access standards of the Oakland Fire Department and Police Department. Therefore, the project would not result in inadequate emergency access. No impact would occur, and no mitigation is required.

4.18 Tribal Cultural Resources

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national, state, or local register of historical resources. Additionally, a tribal cultural resource may be a resource that the lead agency determines, in its discretion, is a tribal cultural resource. Cultural resources are generally defined as traces of human occupation and activity that include prehistoric and historic archaeological sites, districts, and objects; standing historic structures buildings, districts, and objects; and locations of important historic events of sites of traditional and/or cultural importance to various groups. Tribal cultural resources signify the intent to protect resources specifically of cultural value to a tribe. Specifically, the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 protect the following resources:

- (c) A resource may be listed as an historical resource in the California Register if it meets any of the following NRHP criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies 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.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

Native American cultural resources in the city tend to be located along historic bay margins, at or under broad alluvial fans, at the base of hills, and on broad midslope terrace, and always near seasonal and perennial sources of fresh water. Given the environmental setting of the city and the existence of many of these natural features, a potential for Native American cultural resources exists within the City limits.

As part of the process of identifying cultural resources in or near the project, Rincon contacted the NAHC on April 8, 2021, to request a review of the Sacred Lands File (SLF). The SLF is an inventory of places of cultural or traditional significance to California Native American tribes. The NAHC emailed a response on April 21, 2021, stating that the results of the SLF search were positive for sensitivity to the presence of Native American cultural resources within the project site, and provided a list of 11 local Native American contacts.

Regulatory Setting

State

Native American Tribal Cultural Resources

On September 25, 2014, Governor Edmund G. Brown signed AB 52, creating a new category of environmental resources (tribal cultural resources), which must be considered under CEQA. The legislation includes new requirements for consultation regarding projects that may affect a tribal cultural resource, a definition of “tribal cultural resource”, and a list of recommended mitigation measures. AB 52 also requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified of projects proposed within that area. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to mitigate or avoid a significant impact on a tribal cultural resource or when it is concluded that mutual agreement cannot be reached. Currently, the City has one tribal representative from the Ohlone Indian Tribe who has requested to be notified of any project that requires an IS/MND or EIR and includes ground disturbance within the City.

Local

Oakland General Plan

The Oakland General Plan outlines policies that have been adopted for preserving the City’s cultural resources and for minimizing impacts that may result from development. Based on a review of the General Plan the following policy are determined to be applicable to the project: ³⁷

Policy 3.1 Avoid or minimize adverse historic preservation impacts related to discretionary city actions. The City will make all reasonable efforts to avoid or minimize adverse effects on the character defining elements of existing or potential designated historic

³⁷ City of Oakland, 1996. Oakland General Plan, 1996. Available at: <https://www.oaklandca.gov/topics/city-of-oakland-general-plan>. Accessed October 2022.

properties which could result from private or public projects requiring discretionary city actions.

Impact Discussion

Information in this section is based on the Cultural Resources Study prepared for this project by Rincon Consultants in December 2022

- a) **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
- i. **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

Less Than Significant with Mitigation. As stated above in Section 4.5 Cultural Resources, the likelihood of encountering archeological or other buried cultural resources could occur during ground moving construction work. A Sacred Lands File search was requested on October 21, 2022. The Sacred Lands File, operated by the NAHC, is a confidential set of records containing places of religious or social significance to Native Americans. Implementation of Mitigation Measure CUL-1 (see Section 4.5, Cultural Resources) would require work in the immediate area to be halted if any discovered archaeological materials until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. A response from the NAHC was received on November 29, 2022, stating that the results of the SLF search were negative for sensitivity for the presence of Native American cultural resources within the project site. During the public review period, Alameda CTC will conduct tribal consultation with the suggested tribes, as required under AB 52. Results of the tribal consultation will be incorporated into the Final IS/MND. With implementation of Mitigation Measure CUL-1 and by adhering to AB-52 requirements, impacts to tribal cultural resources would be reduced to less than significant level with mitigation.

- 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. As stated above in Section 2.5, Cultural Resources, the likelihood of encountering archeological or other buried cultural resources could occur during ground moving construction work.

A Sacred Lands File search was requested on October 21, 2022. The Sacred Lands File, operated by the NAHC, is a confidential set of records containing places of religious or social significance to Native Americans. A response from the NAHC was received on November 29, 2022, stating that the results of the SLF search were negative for sensitivity for the presence of Native American cultural resources within the project site. During the public review period, Alameda CTC will conduct tribal consultation with the suggested tribes, as required under AB 52. Results of the tribal consultation will be incorporated into the Final IS/MND.

In addition to tribal consultation, implementation of **Mitigation Measure CUL-1** and **Mitigation Measure CUL-2** at all crossing locations would ensure any previously unidentified Native American archeological resources or remains encountered during construction are handled appropriately. With implementation of these mitigation measures, impacts to tribal cultural resources would be less than significant.

4.19 Utilities and Service Systems

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The following discussion qualitatively analyzes potential impacts on local utility providers.

Potable Water

Water for the City of Oakland is provided by the EBMUD. Ninety percent of EBMUD's potable water comes from the 577-square mile watershed of the Mokelumne River on the western slope of the Sierra Nevada.³⁸

³⁸ East Bay Municipal Utility District. 2019. About your water. Available: <https://www.ebmud.com/water/about-your-water/>. Accessed October 2022.

Wastewater

Sewer service for the City is provided by the EBMUD. The City sewer system has adequate capacity to serve the City of Oakland. The City is in the process of updating its Sanitary Sewer Master Plan.

Solid Waste

Solid waste collection for the City of Oakland is provided by Waste Management of Alameda County, Inc. Bulky waste for the city is serviced by the Davis Street Resource Recovery Complex in San Leandro. Waste Management would have adequate capacity to serve the City of Oakland.

Natural Gas and Electricity Services

Electric and gas services within the City are provided by Pacific Gas and Electric (PG&E). No new generation peak capacity is necessary to meet the capacity requirements of new construction.

Regulatory Setting

State

Assembly Bill 939

Assembly Bill 939 (AB 939) relates to solid waste diversion requirements for the State of California. In 1995, all jurisdictions in California were required by AB 939 to divert 25 percent of waste generation from landfill. By the year 2000, all California Jurisdictions were required to divert 50 percent of waste generation from landfills.

Solid Waste Disposal Measurement System Act

The Solid Waste Disposal Measurement System Act (SB 1016) was passed in 2008 and required the AB 939 50-percent-diversion requirement to be calculated in a per capita disposal rate equivalent.

Local

Oakland General Plan

After a review of the Land Use and Transportation Element of the Oakland General Plan, it was determined that the following policies, adopted for avoiding or mitigating impacts resulting from project development within the City, are applicable to the project:

Policy I/C 1.9 Adequate public infrastructure should be ensured within existing and proposed industrial and commercial areas to retain viable uses, improve the marketability of existing, vacant, or underutilized sites, and encourage future use and development of these areas with activities consistent with the goals of the General Plan.

Oakland Municipal Code

After a review of the Oakland Municipal Code, the following policy was determined to be applicable to the project:

Section 13.08.040 Building Sewers and building sewer connections- Permit required, to whom issues, exceptions. It is unlawful for any person to make, cause or permit to be made, any work required for the construction, reconstruction, repair or abandonment of any building sewers or any portion thereof or for the re-use of existing building sewers or any building sewer connection, for the purpose of discharging sewage into the city's sewer system without first obtaining from the Director of Public

Works a written permit to do such work and paying the fee required by this chapter. Provided, however, that:

A. No building sewer permit shall be required for the clearance of sewer stoppages which do not involve excavation in the street.

B. Provided further, however, that permits for building sewer work regulated by this chapter shall be issued only to persons entitled thereto under state law.

Impact Discussion

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

Less Than Significant. The EBMUD's water and sewer utilities system currently serves the project site. The project would require the installation of a new headwall, curb and gutter, and drainage pipe at the 50th Avenue crossing. Beyond this improvement, the existing utilities and service systems would support the project (all sites) and growth evaluated by the General Plan. Coordination will occur with utility providers serving the project area to ensure there will be no disruption to utility services. Therefore, this impact would be less than significant, and no mitigation is required.

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

No Impact. The EBMUD's water and sewer utilities system currently services the project sites. The project would not require the use of potable water and would not require additional resources or entitlements to serve the project. Therefore, there would be no impact, and no mitigation is required.

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

No Impact. As stated above, the EBMUD's water and sewer utilities system has available capacity to serve the project. The project would improve safety features of existing crossings and is not anticipated to increase wastewater generation. As such, the project would not require the construction of new water or wastewater treatment facilities. Therefore, no impact would occur, and no mitigation is required.

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

Less than Significant. Construction activities such as demolition, grading, and paving would generate construction debris and excavated materials. Where feasible, such material would be used on site or recycled to reduce impacts on local and regional landfills. Material that cannot feasibly be used on site or recycled would be off-hauled by trucks to the various landfills operated by Waste Management of Alameda County, Inc.. Once operational, solid waste would not be generated by the project. Given this, the project would be served by existing landfills with sufficient capacity to service the project during construction. There would be a less-than-significant impact, and no mitigation is required.

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

No Impact. Construction activities such as demolition, grading, and paving would generate construction debris and excavated materials. Where feasible, such material would be used on site or recycled to reduce impacts on local and regional landfills. Once operational, the project would not generate solid

waste. Therefore, the project would not result in a net increase of solid waste that would jeopardize the City's consistency with AB 939 or SB 1016. Given this, no impact would occur, and no mitigation is required.

4.20 Wildfire

	Significant Impact	Less than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 change?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The existing crossings are located in highly developed and urbanized areas adjacent to the I-880 freeway. The crossings are developed with existing railroad tracks and surrounded by developed lands including industrial, commercial, and institutional buildings. The California Department of Forestry and Fire Protection identifies fire hazards based on relevant factors such as fuels, terrain, and weather. There are no Fire Hazard Severity Zones (FHSZ) within the urbanized areas of the City. The project is not located within a Very High Fire Hazard Severity Zone.

Impact Discussion

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

Construction

Less than Significant. As discussed in 4.9, Hazards and Hazardous Materials, construction of the project would result in temporary closure of the crossings to vehicular traffic. Detours would be provided to ensure proper access for emergency vehicles. Additionally, the Emergency Operations Plan for the City of Oakland would be implemented in the case of an emergency, and the project would comply with procedures determined by the Emergency Operations Plan, if such an event arose.³⁹ Therefore, the project would not conflict with an adopted emergency response or evacuation plan and the impact would be less than significant and no mitigation is required.

³⁹ City of Oakland. 2021. *2021 Emergency Operations Plan Update*. Available at: <https://www.oaklandca.gov/topics/2021-eop-update>. Accessed November 2022.

Operation

No Impact. As discussed in 4.9, Hazards and Hazardous Materials, the project would not change the local roadway circulation pattern in a way that would physically interfere with local emergency response plans. Instead, the project would improve safety by restricting access to UPRR tracks, improving signage and accessibility, and other safety features. As the project would not change roadways, local roadway circulation would remain at existing levels and would facilitate implementation of emergency response plans and emergency evacuation plans. Therefore, no impact would occur, and no mitigation is required.

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?

No Impact. The project sites and surrounding areas are relatively flat and developed with urban uses, which preclude factors such as slopes or strong winds exacerbating wildfire risks. Therefore, no impact would occur. Similarly, post fire impacts such as drainage changes and landslides would not occur as the existing crossings and their surroundings are highly urbanized, flat, and do not have any steep slopes or hillsides considered susceptible to landslides or flooding.

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?

No Impact. The project sites are located on existing developed sites and would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Further, the existing crossings are not located within a FHSZ. Therefore, the project would have no impact due to wildfire, and no mitigation is required. Therefore, no impact would occur.

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 change?

No Impact. The project sites and surrounding areas are relatively flat and developed with urban uses, which preclude factors such as slopes or strong winds exacerbating wildfire risks. Similarly, post fire impacts such as drainage changes and landslides would not occur as the existing crossings and their surroundings are highly urbanized, flat, and do not have any steep slopes or hillsides considered susceptible to landslides or flooding. Therefore, the project would have no impact due to wildfire, and no mitigation is required.

4.21 Mandatory Findings of Significance

	Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Does the project:

a) Have the potential to degrade 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, 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) 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) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

- a) Have the potential to degrade 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, 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. As described in Section 4.3, Air Quality, Section 4.4, Biological Resources, Section 4.5, Cultural Resources, Section 4.13, Noise and Vibration, and Section 4.18, Tribal Cultural Resources, the project includes mitigation measures to reduce potential impacts. Implementation of mitigation measures described in this Initial Study would reduce all potentially significant impacts of the project to a less-than-significant level.

b) 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. Cumulative impact analysis determines whether an individual project, in combination with other approved or foreseeable projects, would result in significant impacts. If cumulative impacts could occur, cumulative analysis asks whether the project’s contribution to the significant cumulative impact would be cumulatively considerable.

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. A Lead Agency may select a list of projects, including those outside the control of the agency, or alternatively, a summary of projections. These projections may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and these documents may describe or evaluate the regional or area-wide conditions contributing to the cumulative impact.

The project will improve safety at existing railroad crossings, including the installation of new fencing, removal of outdated or non-functioning crossing control equipment, fencing, signage, pavement, and other materials, and construction of gates, curb, and gutter. Additionally, operations of the improved railroad crossings will function similar to the existing conditions (i.e., no change in roadway traffic volumes, or number/frequency of trains).



Therefore, mitigation measures outlined within this Initial Study shall be implemented to reduce project-level impacts to a less-than-significant level for air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise and vibration, and tribal cultural resources. As such, the project would not result in any significant impacts that would substantially combine with impacts of other current or probable future projects. Therefore, the project would not considerably contribute to significant cumulative impacts.

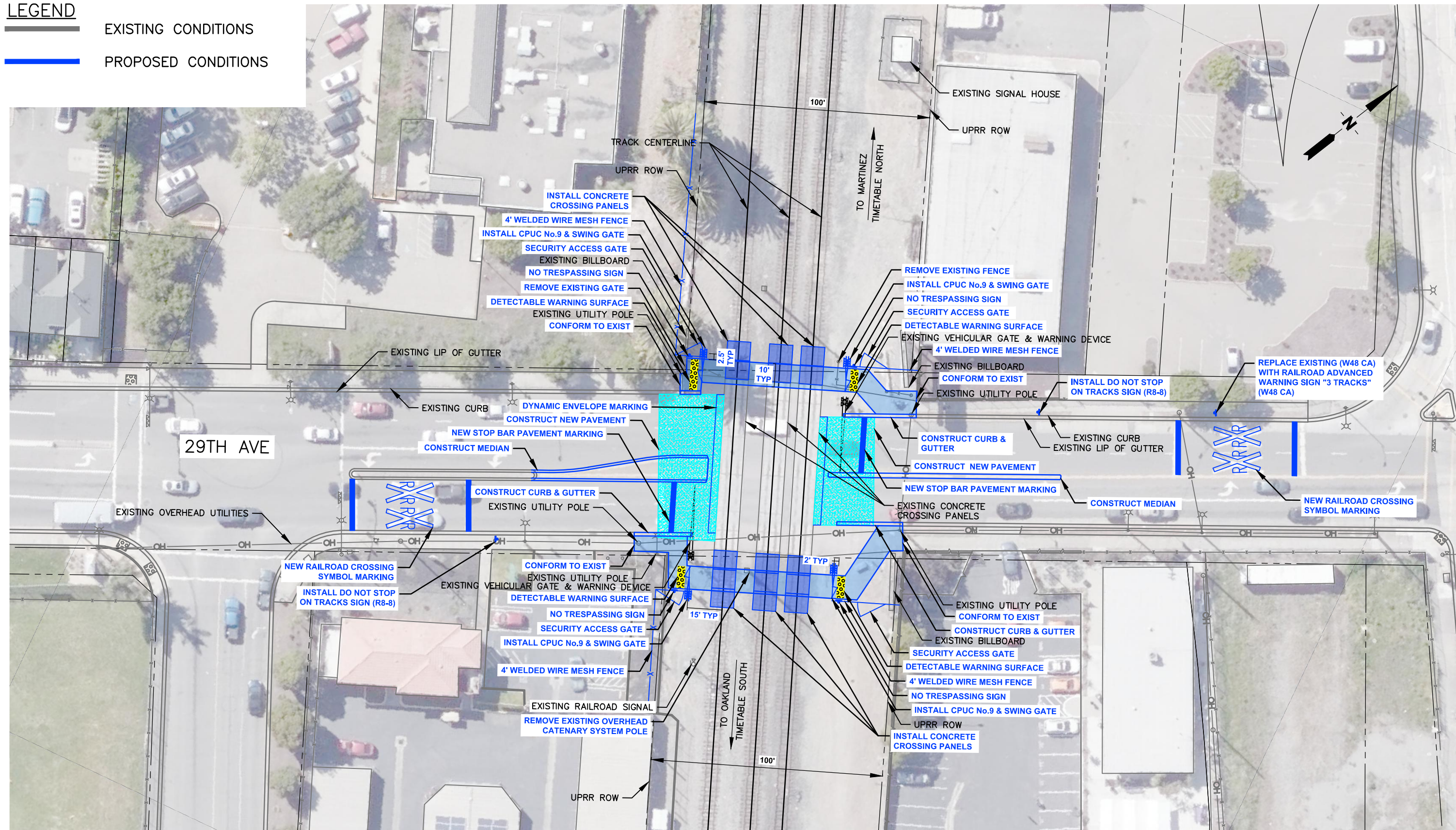
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. As previously discussed throughout this Initial Study, the project would not result in significant environmental impacts on human beings with implementation of mitigation measures. Mitigation measures are identified in this Initial Study to reduce potential significant impacts related to air quality, cultural resources, geology and soils, hazards and hazardous materials, noise and vibration, and tribal cultural resources which could otherwise affect humans. Implementation of these mitigation measures would ensure that the project would not result in impacts that would cause significant impacts on human beings, either directly or indirectly.

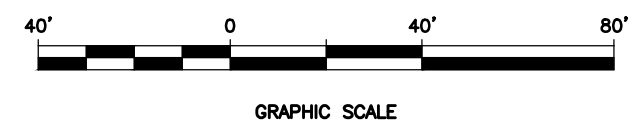
Attachment A - BOD


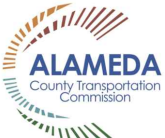
LEGEND

-  EXISTING CONDITIONS
-  PROPOSED CONDITIONS





— PRELIMINARY —
NOT FOR CONSTRUCTION

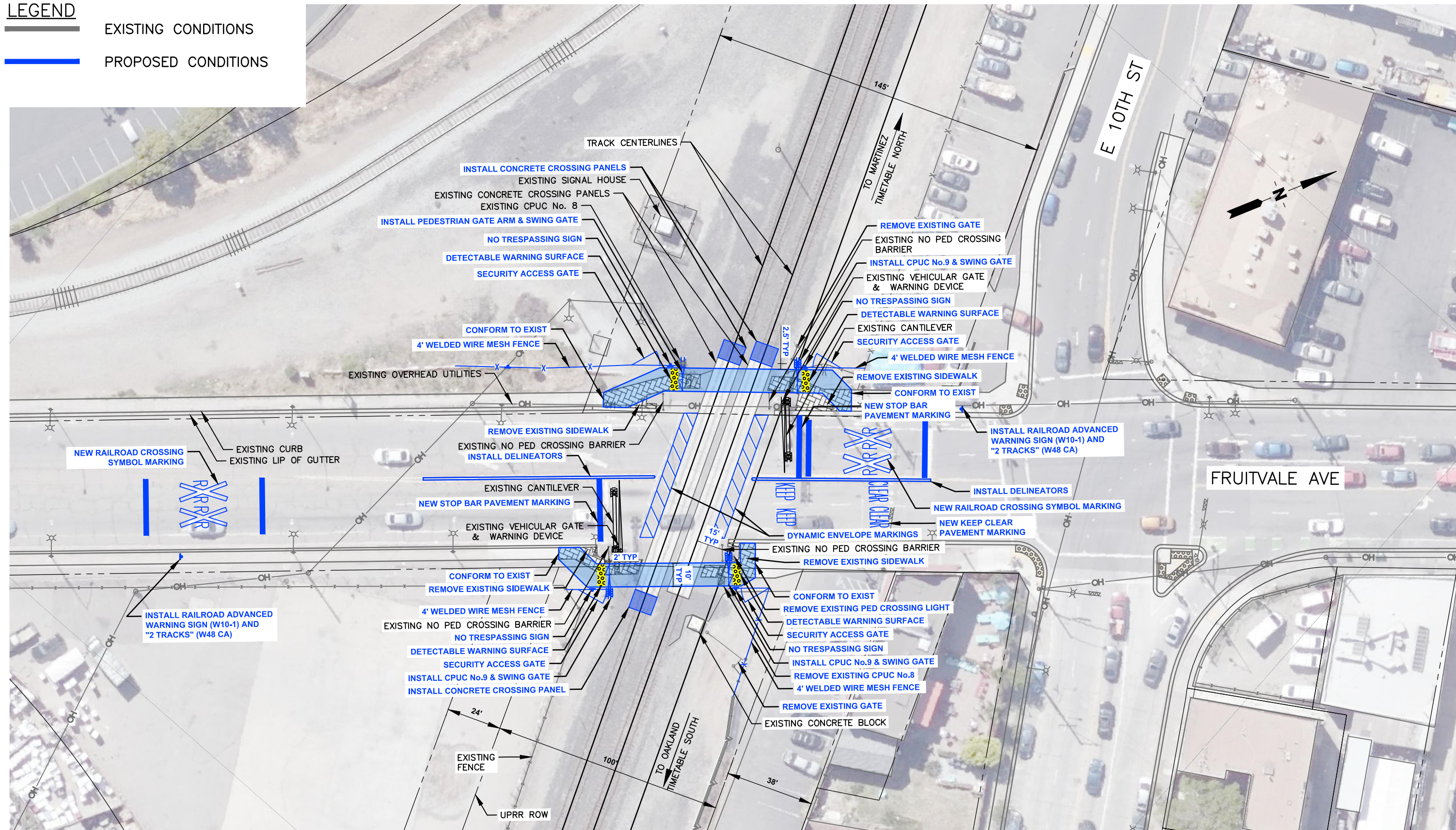


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		CHECKED BY: KPC	
		DATE: 1/17/20	
		SHEET NUMBER	
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		DWG TITLE: 29TH AVE AT GRADE CROSSING	

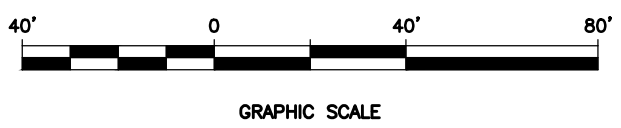
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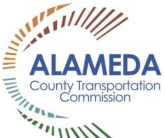
LEGEND

-  EXISTING CONDITIONS
-  PROPOSED CONDITIONS





— PRELIMINARY —
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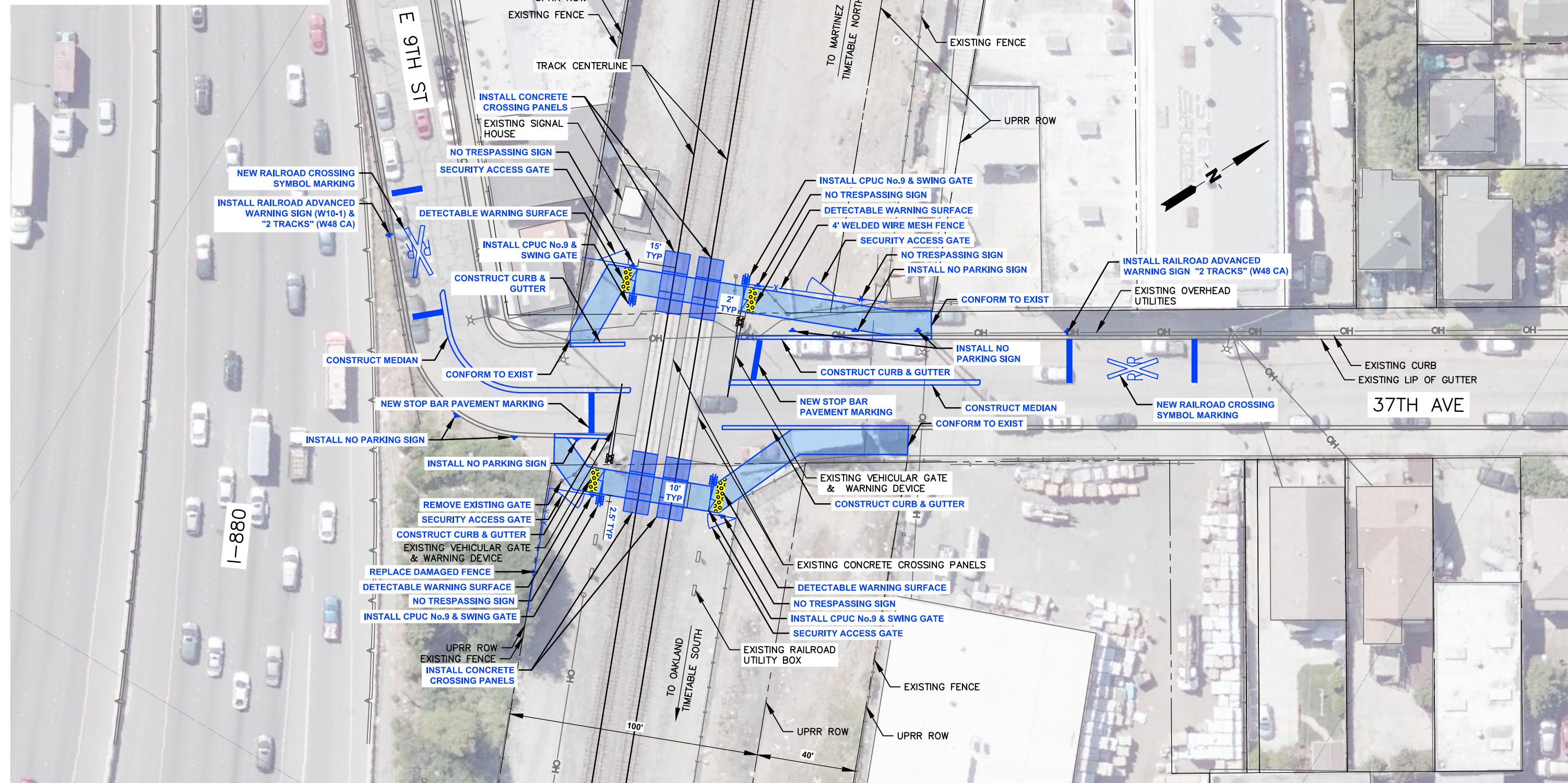


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		CHECKED BY: KPC	
		DATE: 1/17/20	
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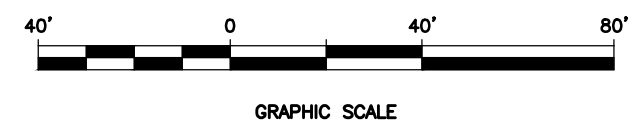
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LEGEND

-  EXISTING CONDITIONS
-  PROPOSED CONDITIONS





— PRELIMINARY —
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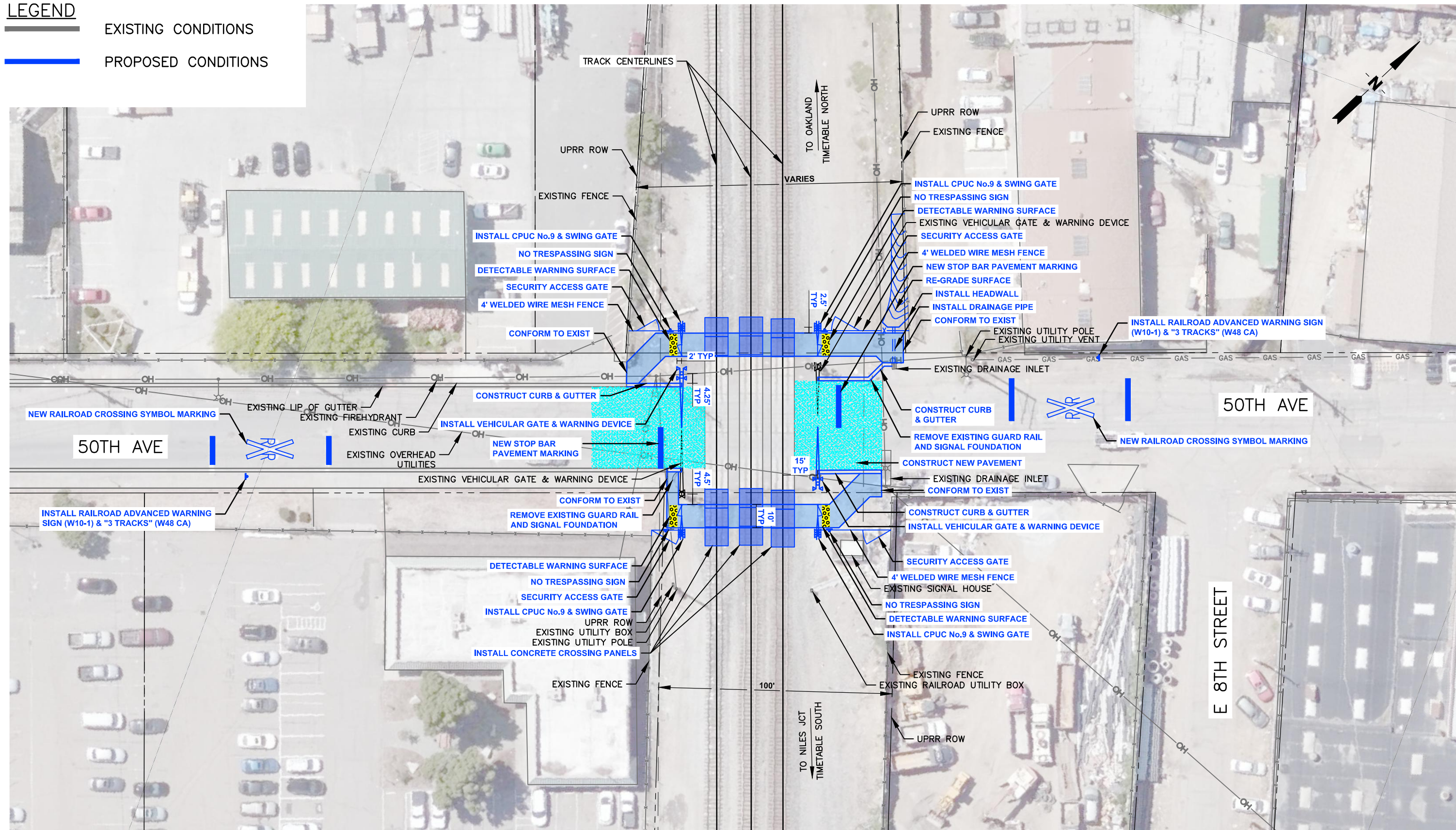


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		CHECKED BY: KPC	
		DATE: 2/06/20	
		SHEET NUMBER	

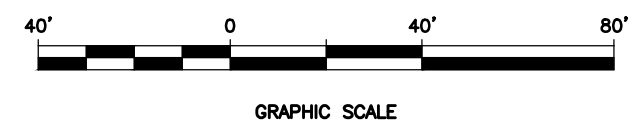
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LEGEND

-  EXISTING CONDITIONS
-  PROPOSED CONDITIONS



- PRELIMINARY -
NOT FOR CONSTRUCTION



		DRAWN BY: TGL	ALAMEDA COUNTY TRANSPORTATION COMMISSION
		CHECKED BY: KPC	
		DATE: 1/17/20	
		SHEET NUMBER	
		LOCATION: UPRR NILES SUB MP 10.8 OAKLAND, CA DOT# 749716B	
		DWG TITLE: 50TH AVE AT-GRADE CROSSING	

PLOT DATE: Aug 21, 2020 - 5:56pm FILE: C:\pwworking\west01\d1238623\EXH-OAK-50TH AVE.dwg