

# Bridge Rehabilitation Project

At the Broadway-Richmond Boulevard Undercrossing (UC), Webster Street UC, Fruitvale Avenue UC, and Santa Clara-Van Buren Avenue Pedestrian Overcrossings in the City of Oakland

ALAMEDA COUNTY, CALIFORNIA  
DISTRICT 4 – ALA – 580 – PM R41.3/44.8  
0P900/0418000024

## Initial Study with Proposed Negative Declaration/ Environmental Assessment



Prepared by the  
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.



August 2022

## General Information about this Document

### What's in this document:

The California Department of Transportation (Caltrans or the Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Alameda County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

### What you should do:

Please read this document.

- Additional copies of this document are available for review at the Caltrans District 4 office at 111 Grand Avenue, Oakland, CA 94612. This document may be downloaded at the following website: (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>)
- Attend the public hearing on **September 21, 2022**.
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the virtual public meeting and/or send your written comments via postal mail, email, or online comment form to Caltrans by the deadline.
- Send comments via:
  - Postal mail to:  
ATTN: Cody Ericksen, Environmental Scientist,  
Office of Environmental Analysis, Caltrans District 4,  
111 Grand Avenue P.O. Box 23660, MS-8B, Oakland, CA 94623-0660
  - Email to: [cody.ericksen@dot.ca.gov](mailto:cody.ericksen@dot.ca.gov).
  - Online comment form, which can be navigated to using the project website: <https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>
  - Phone line: (510) 519-1336
- Be sure to send comments by the deadline: **October 5, 2022**.

### What happens next:

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the FHWA, may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the project.

### Alternative Formats:

For individuals with sensory disabilities, this document can be made available in Braille,

in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call, email, or write to Caltrans, Attn: Cody Ericksen, (510) 506-9678, or call the California Relay Service (800) 735-2929 (TTY), (800) 735-2922 (Voice), or 711.

An Americans with Disabilities Act (ADA)-compliant electronic copy of this document is available to download at: [the Caltrans environmental document website \(https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs\)](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs).

Upgrade existing non-standard bridge barrier railings to current standards along Interstate 580 at the Broadway-Richmond Boulevard Undercrossing (UC) [Bridge Number 33-0285] at postmile (PM) 44.51, the Fruitvale Avenue UC [Bridge Number 33-0324] at PM R41.43, and the Webster Street UC [Bridge Number 33-0296] at PM 44.81 as well as seismically retrofit both the Broadway-Richmond UC and Fruitvale UC. Caltrans also proposes to demolish the Santa Clara Avenue Pedestrian Overcrossing (POC) [Bridge Number 33-0312] at PM 43.76 and the Van Buren Avenue POC [Bridge Number 33-0313] at PM 43.75 and either construct a new replacement POC over I-580 connecting Crescent Street to MacArthur Boulevard or instead provide surface street improvements to nearby Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue.

## **INITIAL STUDY with Proposed Negative Declaration/Environmental Assessment**

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA  
Department of Transportation (Caltrans)

Cooperating Agencies:  
Responsible Agencies: California Transportation Commission

08/23/2022

Date

*David Ambuehl*

For Dina A. El-Tawansy  
District 4 Director  
California Department of Transportation  
NEPA and CEQA Lead Agency

The following persons may be contacted for more information about this document:

Cody Ericksen  
Environmental Scientist, Office of Environmental Analysis  
California Department of Transportation  
P.O. Box 23660, MS-8B  
Oakland, CA 94623  
Cody.Ericksen@dot.ca.gov



## PROPOSED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans or the Department) proposes to replace and upgrade existing non-standard bridge barrier railings to current standards on three undercrossing structures and seismically retrofit two of them located along Interstate 580 (I-580) in Alameda County. The Department also proposes to demolish two pedestrian overcrossings (POCs) located along I-580 and either construct a new replacement POC nearby or instead provide surface street improvements to nearby local roads.

### ***Determination***

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt an ND for this Project. This does not mean that Caltrans' decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this Project and, pending public review, expects to determine from this study that the proposed Project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on growth, recreation, population and housing, land use planning, mineral resources, energy, cultural resources, air quality, agriculture and forest resources, or wildfires.

In addition, the proposed project would have less than significant effects to aesthetics, biological resources, community character or community resources, geology and soils, noise, hydrology and water quality, noise, utilities and service systems, public services, hazardous wastes and hazardous materials, greenhouse gases (GHGs), transportation, and mandatory findings of significance.

*David Ambuehl*

**08/23/2022**

For Dina A. El-Tawansy  
District Director  
District 4  
California Department of Transportation

Date

## Table of Contents

<b>Chapter 1</b>	<b>Proposed Project .....</b>	<b>1</b>
1.1	Introduction .....	1
1.2	Purpose and Need .....	4
1.2.1	Purpose .....	4
1.2.2	Need .....	4
1.2.3	Independent Utility and Logical Termini.....	4
1.3	Project Description .....	5
1.3.1	Project Alternatives.....	5
1.3.2	Improvements Common to both Build Alternatives .....	9
1.3.3	Improvements Unique to Each of the Build Alternatives.....	12
1.3.4	No Build Alternative .....	19
1.3.5	Construction .....	19
1.4	Comparison of Alternatives.....	31
1.5	Development of the Build Alternatives and Alignment with Caltrans Policies and Initiatives .....	32
1.6	Project Features .....	33
1.7	Permits and Approvals Needed .....	40
<b>Chapter 2</b>	<b>Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures .....</b>	<b>41</b>
2.1	Human Environment.....	43
2.1.1	Existing and Future Land Use .....	43
2.1.2	Parks and Recreational Facilities .....	61
2.1.3	Community Character and Cohesion.....	66
2.1.4	Relocations and Real Property Acquisition.....	78
2.1.5	Environmental Justice.....	81
2.1.6	Utilities/Emergency Services .....	93
2.1.7	Traffic and Transportation/Pedestrian and Bicycle Facilities .....	95
2.1.8	Visual/Aesthetics .....	102
2.1.9	Cultural Resources .....	135
2.2	Physical Environment.....	140

2.2.1	Water Quality and Stormwater Runoff .....	140
2.2.2	Geology/Soils/Seismic/Topography .....	147
2.2.3	Paleontology .....	148
2.2.4	Hazardous Waste/Materials .....	150
2.2.5	Noise .....	153
2.2.6	Energy .....	171
2.3	Biological Environment.....	175
2.3.1	Natural Communities .....	175
2.3.2	Wetlands and Other Waters .....	177
2.3.3	Plant Species.....	179
2.3.4	Animal Species.....	182
2.3.5	Threatened and Endangered Species .....	186
2.3.6	Invasive Species.....	193
2.4	Cumulative Impacts.....	195
<b>Chapter 3</b>	<b>California Environmental Quality Act (CEQA) Evaluation .....</b>	<b>199</b>
3.1	CEQA Environmental Checklist.....	199
3.2	Climate Change .....	235
3.2.1	Regulatory Setting .....	235
3.2.2	Environmental Setting.....	238
3.2.3	CEQA Conclusion.....	245
<b>Chapter 4</b>	<b>Agency Coordination and Public Involvement .....</b>	<b>253</b>
4.1	Native American Tribal Consultation .....	253
4.2	Local Agency Coordination.....	253
4.3	Public Information Meetings .....	254
4.4	Public Involvement Process for the DED.....	256
<b>Chapter 5</b>	<b>List of Preparers.....</b>	<b>257</b>
<b>Chapter 6</b>	<b>Distribution List.....</b>	<b>259</b>
<b>Appendix A</b>	<b>Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determinations .....</b>	<b>264</b>
<b>Appendix B</b>	<b>List of Project Features (PFs) .....</b>	<b>266</b>
<b>Appendix C</b>	<b>Avoidance, Minimization, and/or Mitigation (AMM) Measures Summary.....</b>	<b>273</b>
<b>Appendix D</b>	<b>List of Acronyms and Abbreviations.....</b>	<b>275</b>

<b>Appendix E</b>	<b>List of Technical Studies</b> .....	<b>287</b>
<b>Appendix F</b>	<b>List of References</b> .....	<b>288</b>
<b>Appendix G</b>	<b>Title VI Policy Statement</b> .....	<b>291</b>
<b>Appendix H</b>	<b>Species Lists</b> .....	<b>292</b>

## List of Tables

Table 1-6. List of Project Features (PFs).....	34
Table 2.1-1: Current and Proposed Developments within ½ Mile of the Project Area ...	47
Table 2.1-2 Consistency with State, Regional, and Local Plans and Programs .....	52
Table 2.1-4: Population Characteristics of Study Area and Region.....	67
Table 2.1-5: Regional and Study Area Household Income.....	68
Table 2.1-6: Regional and Study Area Housing Characteristics.....	72
Table 2.1-7. Jobs Located in Study Area .....	73
Table 2.1-9. Estimated Right-of-Way Requirements for Build Alternatives .....	79
Table 2.1-10. CalEnviroScreen Pollution Burden at Project Locations.....	83
Table 2.1-11. Percent of Minority and Low-income Populations within Alameda County, City of Oakland, and Project Study Area .....	84
Table 2.1-12. Percent of Minority and Low-income Populations within the Project Study Area by Census Tract.....	85
Table 2.1-13. Visual Impact Determinations of KV 1, 3, 4, and 8 (Improvements Common to Both Build Alternatives).....	112
Table 2.1-14. Visual Impact Determinations of KV 5, 6, and 7 (Build Alternative 1)....	120
Table 2.1-15. Visual Impact Determinations of KV 2 and 6 (Build Alternative 2).....	129
Table 2.2-1: Noise Abatement Criteria (NAC) .....	155
Table 2.2-2. Modeled Construction Noise Levels for POC Demolition .....	161
Table 2.2-4. Modeled Construction Noise Levels for New POC Construction.....	169
Table 2.2-4. Construction Fuel Consumption .....	173
Table 2.3-1. Special-Status Plant Species with Potential to Occur in the Biological Study Area (BSA) .....	181
Table 2.3-2. Federal or State Endangered or Threatened Plant Species.....	188
Table 2.3-3. Federal or State Threatened or Endangered Species.....	189
Table 2.4-1 List of Current or Foreseeable Caltrans Projects along I-580.....	197
Table 3.2-1. Regional and Local Greenhouse Gas Reduction Plans .....	243
Table 3.2-2. Summary of Construction-related GHG Emissions .....	245
Table 5.1-1. List of Preparers and Reviewers .....	257

## List of Figures

Figure 1.1-1. Project Location Map .....	2
--	---

Figure 1.3-1. Overview of Build Alternative 1 (New Replacement Pedestrian Overcrossing) .....	7
Figure 1.3-2. Overview of Build Alternative 2 (Surface Street Improvements) .....	8
Figure 1.3-3. View of West End of Existing POC (MacArthur Boulevard).....	10
Figure 1.3-4. View of Existing POC from Eastbound I-580.....	11
Figure 1.3-5. View of East End of Existing POC (Santa Clara Avenue) .....	11
Figure 1.3-6. New Replacement POC under Build Alternative 1 .....	13
Figure 1.3-7. Map of Existing Conditions of Nearby Surface Streets .....	17
Figure 1.3-8. Map of Proposed Improvements to Nearby Surface Streets (Build Alternative 2) .....	18
Figure 1.3-9. Project Footprint – Webster Street UC and Portion of Broadway-Richmond Boulevard UC .....	25
Figure 1.3-10. Project Footprint – Broadway-Richmond Boulevard UC .....	26
Figure 1.3-11. Project Footprint – Fruitvale Avenue UC (1 of 2) .....	27
Figure 1.3-12. Project Footprint – Fruitvale Avenue UC (2 of 2) .....	28
Figure 1.3-13. Project Footprint – Build Alternative 1 (New Pedestrian Overcrossing) ..	29
Figure 1.3-14. Project Footprint – Existing Pedestrian Overcrossing Demolition and Build Alternative 2 .....	30
Figure 2.1-1. Land Use Designations in the Study Area (1 of 2) .....	44
Figure 2.1-1. Land Use Designations in the Study Area (2 of 2) .....	45
Figure 2.1-2 Parks in the Study Area (1 of 2).....	63
Figure 2.1-2 Parks in the Study Area (2 of 2).....	64
Table 2.1-8. Unemployment Rates in Study Area, City of Oakland, and Alameda County .....	74
Figure 2.1-3. Census Tract and Block Groups in the Project Study Area (Webster Street, Broadway-Richmond Boulevard, and Grand Avenue UCs) .....	87
Figure 2.1-4. Census Tract and Block Groups in the Project Study Area (Fruitvale Avenue UC).....	88
Figure 2.1-5. Visual Impact Assessment Process Concept Diagram .....	104
Figure 2.1-6. Visual Impact Ratings Using Viewer Response and Resource Change	105
Figure 2.1-7. Map of Key Views (KVs) .....	107
Figure 2.1-8. Photo of VAU 1 from EB I-580 .....	108
Figure 2.1-9. Photo of VAU 1 from Broadway Avenue .....	108
Figure 2.1-10. Photo of VAU 2 from EB I-580 .....	109
Figure 2.1-11. Photo of VAU 2 from Grand Avenue .....	109
Figure 2.1-12. Photo of VAU 3 from Fruitvale Avenue .....	110
Figure 2.1-13. Key View (KV) 1: Existing Conditions.....	114
Figure 2.1-14. Key View (KV) 1: Proposed Conditions.....	115
Figure 2.1-15. Key View (KV) 3: Existing Conditions.....	116
Figure 2.1-16. Key View (KV) 3: Proposed Improvements .....	117
Figure 2.1-17. Key View (KV) 4: Existing Conditions.....	118
Figure 2.1-18. Key View (KV) 4: Proposed Improvements .....	119
Figure 2.1-19. Key View (KV) 5: Existing Conditions.....	122

Figure 2.1-20. Key View (KV) 5: Proposed Improvements .....	122
Figure 2.1-21. Key View (KV) 6: Existing Conditions.....	125
Figure 2.1-22. Key View (KV) 6: Proposed Improvements .....	125
Figure 2.1-23. Key View (KV) 7: Existing Conditions.....	127
Figure 2.1-24. Key View (KV) 7: Proposed Improvements .....	127
Figure 2.1-25. Key View (KV) 2: Existing Conditions.....	131
Figure 2.1-26. Key View (KV) 2: Proposed Improvements .....	133
Figure 2.2-1. Noise Levels of Common Activities .....	157
Figure 2.2-2. Location of Receptors – POC Demolition.....	163
Figure 2.2-3. Location of Receptors – Broadway-Richmond Boulevard .....	167
Figure 2.2-4 Location of Receptors – Fruitvale Avenue .....	167
Figure 3.2-1. U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021d).....	240
Figure 3.2-2. California 2019 Greenhouse Gas Emissions by Economic Sector (Source: ARB 2021a).....	241
Figure 3.2-3. Change in California GDP, Population, and GHG Emissions since 2000 (Source: ARB 2021a) .....	242

# Chapter 1 Proposed Project

---

## 1.1 INTRODUCTION

The California Department of Transportation (Caltrans) is the lead agency under the Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), as assigned by the Federal Highway Administration (FHWA), for the proposed Bridge Rehabilitation Project (Project).

Caltrans proposes to upgrade existing non-standard bridge barrier railings to current on the following three bridges located along Interstate 580 (I-580) in the City of Oakland in Alameda County: the Fruitvale Avenue Undercrossing [UC] (Bridge Number 33-0324) at postmile (PM) R41.43, the Broadway-Richmond Boulevard UC (Bridge Number 33-0285) at PM 44.51, and the Webster Street UC (Bridge Number 33-0296) at PM 44.81. Caltrans also proposes to seismically retrofit the Fruitvale Avenue UC and the Broadway-Richmond Boulevard UC. Additionally, Caltrans proposes to demolish two pedestrian overcrossings (POC) spanning I-580 and either construct a new replacement POC over I-580 connecting Crescent Street to MacArthur Boulevard or instead enhance the nearby Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue between the touchdowns of the existing POCs. The POCs proposed to be demolished are: the Santa Clara Avenue POC (Bridge Number 33-0312) at PM 43.76 and the Van Buren Avenue POC (Bridge Number 33-0313) at PM 43.75. Although these are two POCs with separate structures and separate bridge numbers, they function as one POC system that crosses I-580 and are considered to be a single POC by the general public. Figures 1.1-1 and 1.1-2 are project location and vicinity maps.

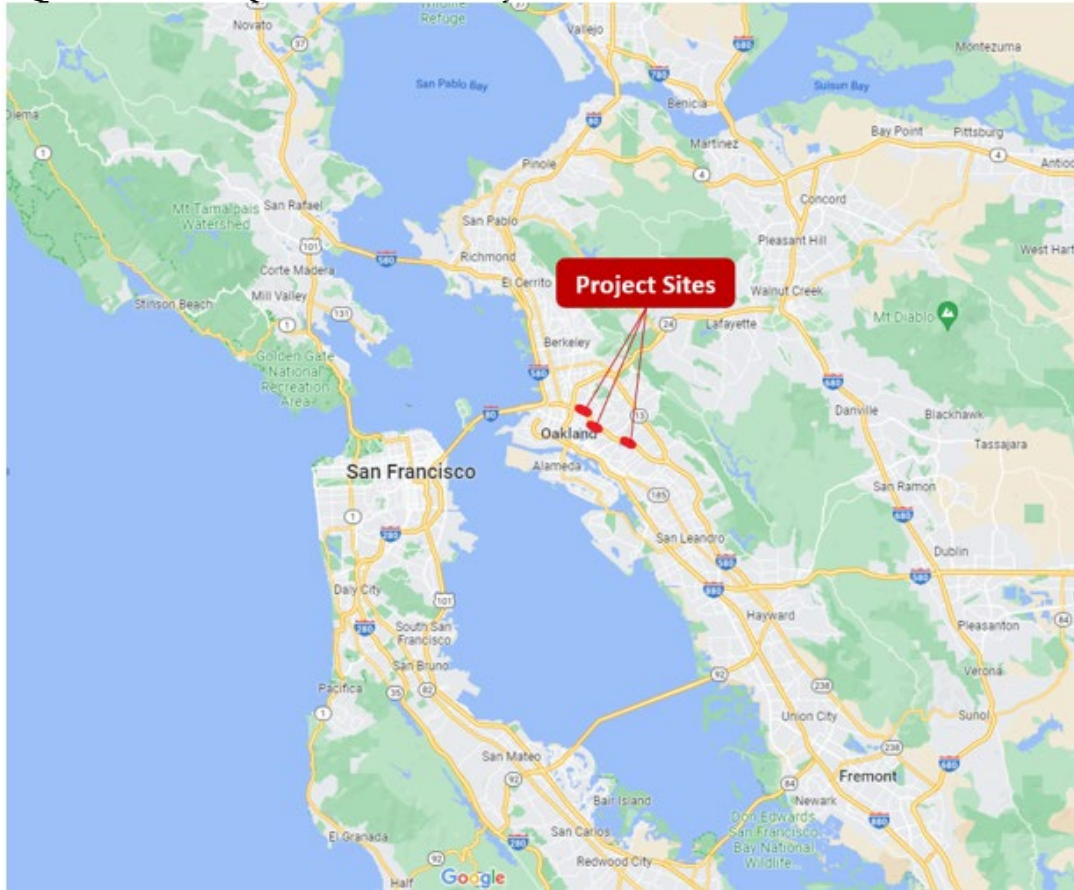
California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary’s responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the



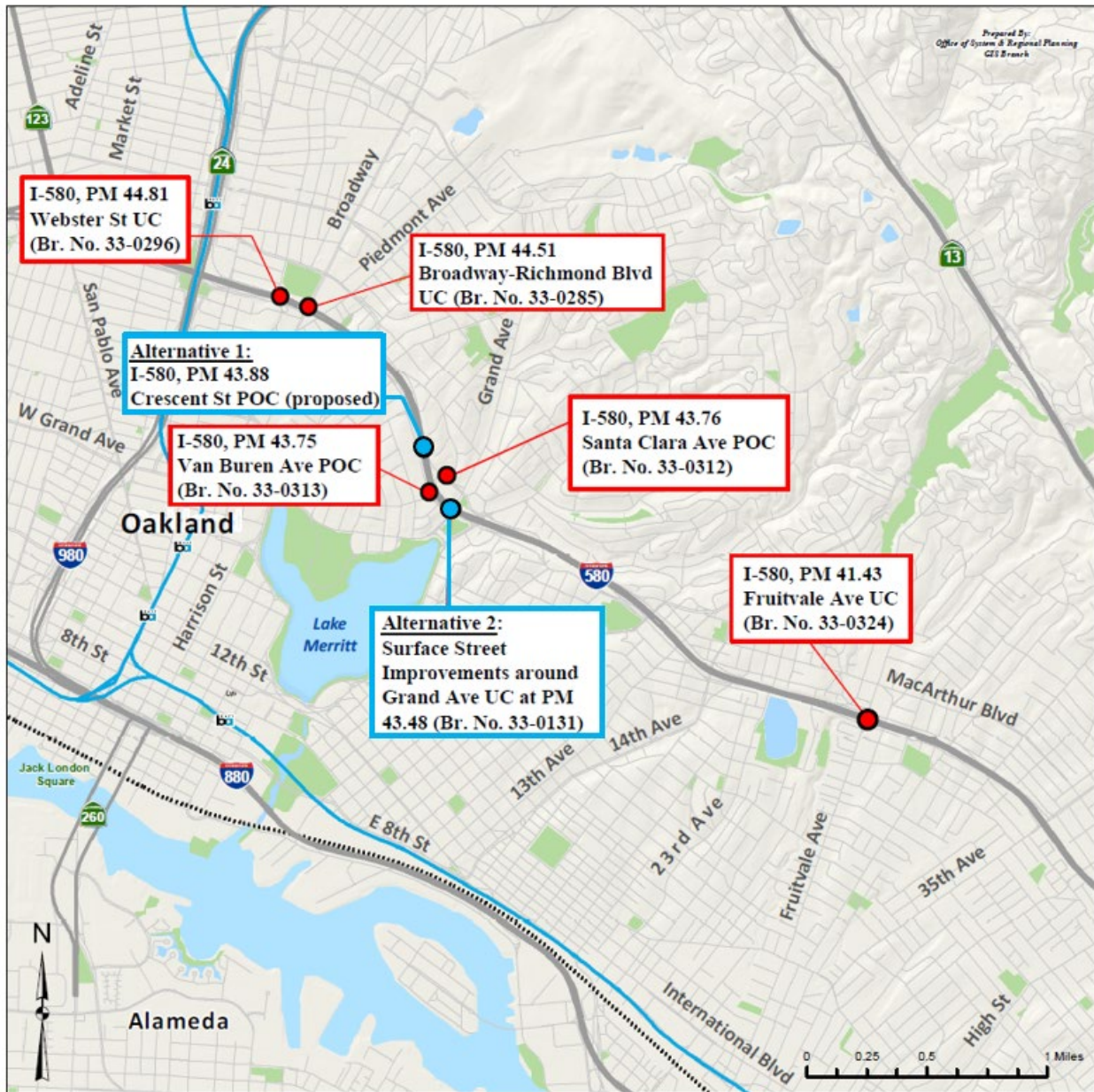
Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

This Project is funded by the State Highway Operation and Protection Program, under 201.113 “Bridge Rehabilitation and Reconstruction” and is included in the 2023/2024 funding cycle.

**Figure 1.1-1. Project Location Map**



**Figure 1.1-2. Project Vicinity Map**



## **1.2 PURPOSE AND NEED**

### **1.2.1 PURPOSE**

The purpose of this Project is to bring the existing undercrossings and bridges into conformity with current state and federal highway design standards, to improve the condition of these assets, and to maintain connectivity between the communities in these areas. The Project will preserve the structural integrity of the undercrossings and demolish two **pedestrian overcrossings (POCs)** in a safe, economic manner that prevents bridge failure and maintains connectivity between communities in the Project area.

### **1.2.2 NEED**

The Project is needed because Caltrans Structures Maintenance and Investigations (SM&I) has identified the current barrier railings of the Fruitvale Avenue UC, the Broadway-Richmond Boulevard UC, and the Webster Street UC to be in need of replacement to meet current safety standards. The Fruitvale Avenue and Broadway-Richmond Boulevard UCs were identified as needing seismic retrofits in addition to bridge barrier replacements. The Santa Clara Avenue and Van Buren Avenue POCs do not meet current seismic design standards, current vertical clearance standards, or Americans with Disabilities Act (ADA) standards.

The existing Santa Clara Avenue and Van Buren Avenue POCs currently provide a connection and safe crossing of I-580 between the Grand Lake and Adams Point neighborhoods of the City of Oakland. However, because the POCs are structurally deficient and don't meet current standards, they must be demolished, but this connection between Grand Lake and Adams Point needs to be maintained. Due to elevation change between the touchdown areas of the existing POCs and geometric constraints, an ADA-complaint replacement POC is unable to be built at the same location. The Project's two build alternatives were developed to address maintaining connectivity between these two communities.

### **1.2.3 INDEPENDENT UTILITY AND LOGICAL TERMINI**

Federal Highway Administration (FHWA) regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the action evaluated:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The proposed project includes logical starting and ending points, or termini, that are centered around the replacement of the existing bridge. The project would have independent utility, which means that the proposed improvements can be implemented within the project limits, and completion of other projects would not be required to gain the operational benefits of the proposed improvements. The project would not preclude consideration of alternatives for other reasonable, foreseeable transportation improvements in the area. The project would improve fish migration, regardless of whether other transportation improvement projects in the area are implemented. In addition, the project would not be a segment of a larger project or a commitment to a larger project with significant environmental effects. Therefore, the project would have independent need and utility.

### **1.3 PROJECT DESCRIPTION**

Caltrans proposes to upgrade existing non-standard bridge barrier railings to current standards at the Fruitvale Avenue UC (Bridge Number 33-0324) at postmile (PM) R41.43, the Broadway-Richmond Boulevard UC (Bridge Number 33-0285) at PM 44.51, and the Webster Street UC (Bridge Number 33-0296) at PM 44.81, all of which are located along I-580 in the City of Oakland. Seismic retrofits of both the Broadway-Richmond Boulevard UC and the Fruitvale Avenue UC are also proposed. Additionally, Caltrans proposes to demolish two POCs, the Santa Clara Avenue POC at PM 43.76 and the Van Buren Avenue POC at PM 43.75, located along I-580 and either construct a new replacement POC across I-580 from Crescent Street to MacArthur Boulevard or instead enhance nearby Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue. Although these are two existing POCs with two separate structures and bridge numbers, they function as one POC system that crosses I-580 and are considered to be a single POC by the general public. Moving forward, **the existing two POCs will be referred to as a single POC in this document.**

#### **1.3.1 PROJECT ALTERNATIVES**

This section describes the proposed alternatives developed to meet the purpose and need of the project, while enhancing connectivity and pedestrian and bicycle mobility within the project study area. The Project consists of three alternatives, two of them build alternatives with some project improvements being common to both, and one No-Build Alternative.

Both of the build alternatives include bridge barrier replacements on all three UCs, seismic retrofit work at two of the UCs, and demolition of the existing POC. Overall, each build alternative consists of the following:

- **Build Alternative 1** – Includes the shared improvements described in addition to construction of a new replacement POC in the vicinity. Figure 1.3-1 provides a map showing an overview of the main improvements under Build Alternative 1 and their locations within the Project area.

- **Build Alternative 2** – Includes the shared improvements described in addition to surface street improvements along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue. Figure 1.3-2 provides a map showing an overview of the main improvements under Build Alternative 2 and their locations within the Project area.
- **No-Build Alternative** – No action is proposed, the current conditions will remain.

The project improvements common to both build alternatives, new POC unique to Build Alternative 1, surface street improvements unique to Build Alternative 2, and the No-Build Alternative are each described in further detail throughout the following sections and are each shown visually in project footprint maps in Figures 1.3-9 through 1.3-14 on pages 25-30 of this document.



**Figure 1.3-1. Overview of Build Alternative 1 (New Replacement Pedestrian Overcrossing)**

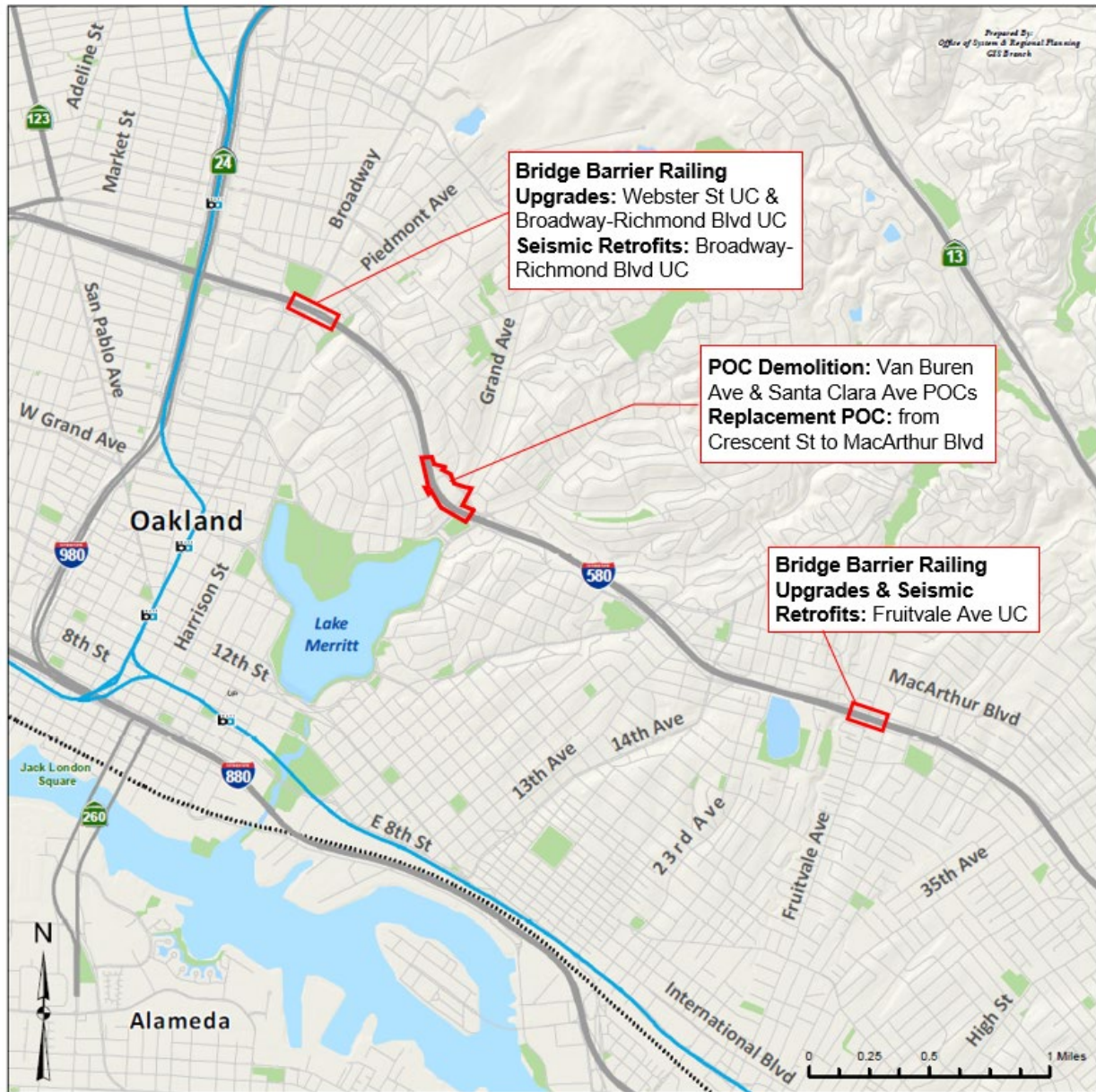
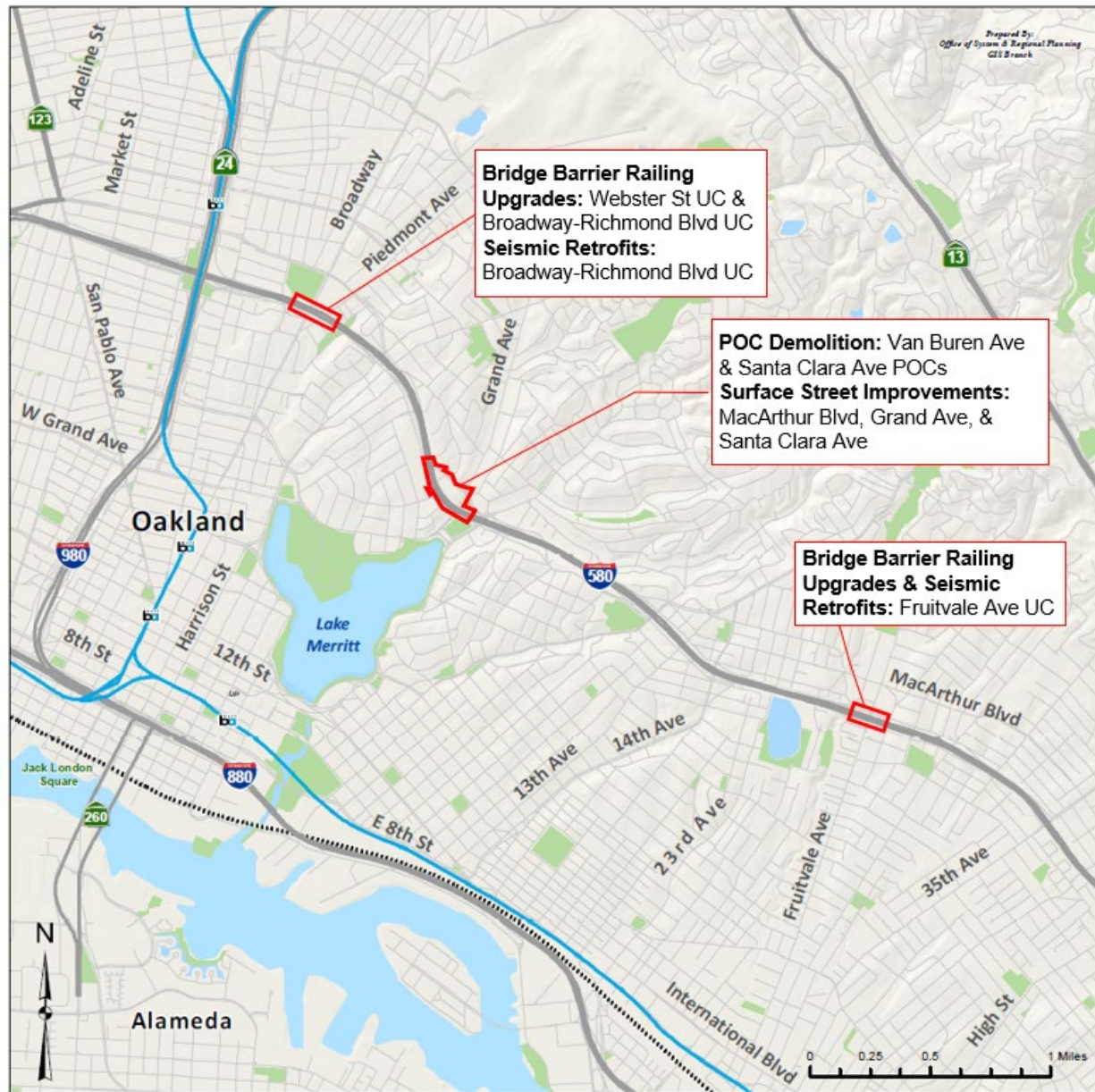


Figure 1.3-2. Overview of Build Alternative 2 (Surface Street Improvements)





## **1.3.2 IMPROVEMENTS COMMON TO BOTH BUILD ALTERNATIVES**

### **Bridge Railing Replacements and Seismic Retrofits**

Both build alternatives would consist of bridge railing replacements on the following three bridges: Fruitvale Avenue UC, the Broadway-Richmond Boulevard UC, and the Webster Street UC. Seismic retrofits at the Broadway-Richmond Boulevard UC and the Fruitvale Avenue UC are also common to both alternatives. All of the three UCs are located along I-580 in the City of Oakland and the improvements can be seen in Figures 1.3-9 through 1.3-12.

The existing concrete barrier railings on all three bridges would be replaced with concrete barrier (CB) Type 836 barrier railing. To reduce the risk of potential concrete spalling or flaking and cracking of the structure during construction, a debris containment system would be implemented during construction. This containment system would consist of installing scaffolds along the length of the bridge railings.

Seismic retrofitting of the Broadway-Richmond Boulevard UC would require encasing the structure's existing support columns with steel column casings. Once encased, concrete would be injected into the space between the existing column and the steel casing. In total, 48 columns would undergo this procedure. At the Fruitvale Avenue UC, each bridge bent currently consists of 6 columns in a row that support the structure. Seismic retrofits at this location would involve construction of infill walls around each set of 3 columns (no infill walls will be created between each row's middle two columns). Concrete would be poured between each set of 3 columns to create an infill wall. In total, 16 infill walls would be constructed at the Fruitvale Avenue UC.

The existing lighting systems at applicable sidewalks, crosswalks, and park and ride lots under each of the three UCs would also be upgraded in accordance with Caltrans design guidelines and standards.

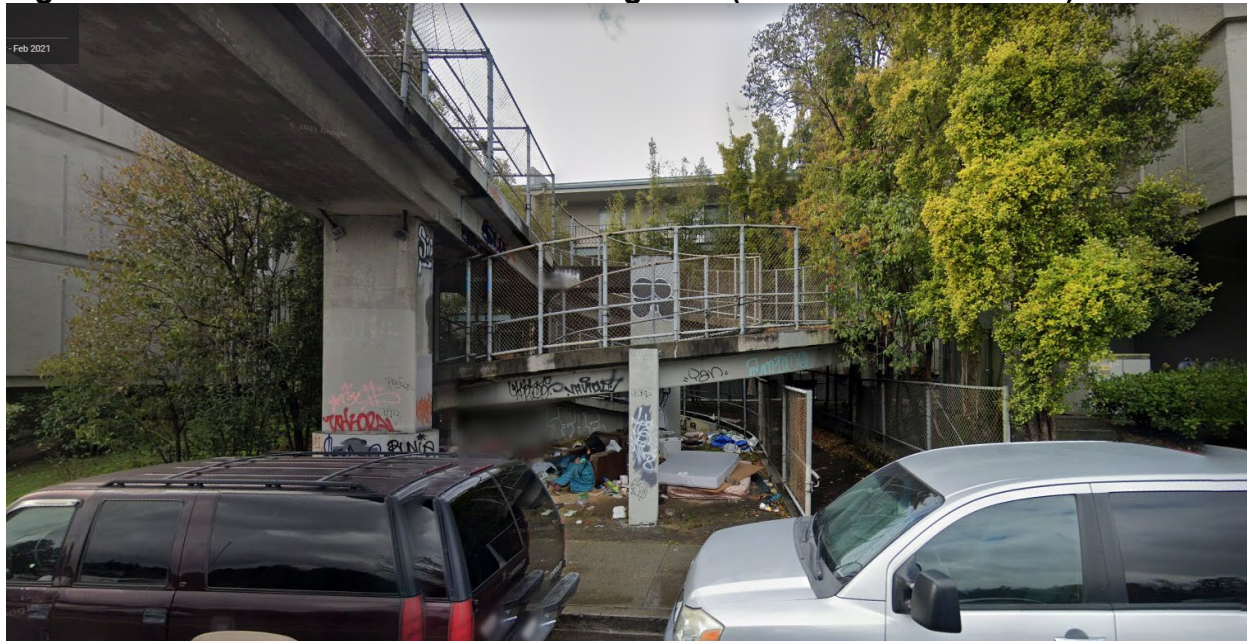
### **Pedestrian Overcrossing (POC) Demolition**

The existing POC spanning across I-580 from Santa Clara Avenue to MacArthur Boulevard is proposed to be demolished as the structure does not meet current seismic design, vertical clearance, or ADA standards. The POC's touchdown ramp at Santa Clara Avenue is located within Caltrans right-of-way at the intersection of Santa Clara Avenue and the westbound (WB) I-580 Grand Avenue on-ramp. The POC crosses the WB I-580 Grand Avenue on- and off-ramps and touches down directly adjacent to the AIMS College Prep High School's parking lot (formerly Lakeview Elementary School) where it then proceeds to raise in elevation and cross I-580 to touchdown at MacArthur Boulevard. The existing POC's touchdown ramp on MacArthur Boulevard lands in a parcel of land surrounded by an apartment complex within the City of Oakland's right-of-way close to the Van Buren Avenue/MacArthur Boulevard intersection. The following Figures 1.3-3, 1.3-4, and 1.3-5 show photos of the existing POC and its touchdown

ramps along MacArthur Boulevard and Santa Clara Avenue. The location of the existing POC can be seen in layout maps provided in Figures 1.3-7 and 1.3-14.

The existing alternate path of travel for pedestrians between the POC's two touchdown ramps on MacArthur Boulevard and Santa Clara Avenue would be via MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue and would involve 5 crossings total, with three of the crossings being unsignalized and two being signalized. This alternate path of travel is approximately 1,750 feet long.

**Figure 1.3-3. View of West End of Existing POC (MacArthur Boulevard)**



**Figure 1.3-4. View of Existing POC from Eastbound I-580**



**Figure 1.3-5. View of East End of Existing POC (Santa Clara Avenue)**



## **Installation of Trash Capture Devices**

The installation of two trash capture devices is proposed under both build alternatives. The first trash capture device would be installed in the embankment area between the Interstate 580 (I-580) mainline and the westbound (WB) I-580 Fruitvale Avenue on-ramp at approximately postmile R41.557. This device would be an Inclined Screen Gross Solids Removal Device (GSRD) that is approximately 11 feet wide by 11 feet long and 6 feet deep. An existing maintenance vehicle pullout (MVP) approximately 13 feet wide along the WB I-580 Fruitvale Avenue on-ramp would be used for this location and would allow Caltrans staff to provide regular maintenance of the trash capture device. The second trash capture device location would be installed in the area between the WB I-580 Grand Avenue on and off-ramps at approximately PM 43.788. At this location there is an existing unlined ditch where a trash net device and its concrete pad would be placed. The trash net's concrete pad would be trapezoidal in shape and be approximately 20 feet long, 2 feet wide at the narrow end, and 8 feet wide at the long end. An existing 16 feet wide maintenance vehicle pullout along the WB I-580 Grand Avenue on-ramp would be used for this location.

Additional locations for trash capture devices may be identified in the next phase of the Project, the Design Phase. The two proposed trash capture locations are identified in the maps provided in Figures 1.3-11 and 1.3-14.

### **1.3.3 IMPROVEMENTS UNIQUE TO EACH OF THE BUILD ALTERNATIVES**

#### **Build Alternative 1 – Replacement POC**

Under Build Alternative 1, a new POC is proposed to be constructed in the vicinity to replace the existing POC that spans I-580 from Santa Clara Avenue to MacArthur Boulevard that would be demolished. The new POC would also span I-580, but from the Crescent Street cul-de-sac to MacArthur Boulevard, approximately 600 feet northwest of the existing POC's location. The new POC structure would be approximately 361 feet in length, 10 feet wide, and have a vertical clearance of 19.25 feet. The new POC would also be ADA compliant.

The replacement POC is not proposed in the exact location as the existing POC because it is not possible to construct an ADA compliant POC in the same location due to space constraints and right-of-way limitations around the touchdown ramps. The proposed new Crescent Street POC touchdown ramp is located approximately 600 feet away from the existing Santa Clara Avenue POC touchdown ramp, while the proposed MacArthur Boulevard touchdown ramp is located about 900 feet from the existing MacArthur touchdown ramp.

This build alternative also includes a new pedestrian crosswalk with ADA curb ramps near the new POC's touchdown ramp on MacArthur Boulevard, allowing pedestrians to cross the road. This new crosswalk would also include either a Rapid Rectangular



Flashing Beacon (RRFB) or a Pedestrian Hybrid Beacon (PHB) with advanced warning signs. The new POC may require widening a segment of sidewalk on MacArthur Boulevard directly underneath the new touchdown ramp to provide adequate clearance for pedestrians walking down MacArthur Boulevard along the sidewalk. Figure 1.3-6 shows a map of the proposed location of the replacement POC and the other improvements unique to this build alternative. Figure 1.3-13 also provides a project footprint map of the new replacement POC.

**Figure 1.3-6. New Replacement POC under Build Alternative 1**



## **Build Alternative 2 – Surface Street Improvements**

Under Build Alternative 2, surface-street improvements are proposed between the touchdown ramps of the existing POCs along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue instead of construction of a replacement POC. These improvements were identified in close collaboration with the City of Oakland's Department of Transportation (OakDOT). Some of these improvements are located outside of Caltrans' right-of-way and are within the City of Oakland's right-of-way. Currently, these improvements constitute four possible design scenarios. All improvements being considered are listed below and are subject to further community input, the results of ongoing traffic operational studies, and further negotiations with the City of Oakland. The proposed improvements under Build Alternative 2 are provided in the maps in Figures 1.3-8 and 1.3-14.

On MacArthur Boulevard/Eastbound (EB) I-580 Grand Avenue Off-ramp:

- Traffic calming measures including reducing the width of the EB Grand Avenue off-ramp to maintain uniform lane widths and reducing the number of lanes after the off-ramp from three lanes to two lanes or opening the third lane (left-turn pocket) on the approach to Grand Avenue
- Plant additional trees on the east side of MacArthur Boulevard next the I-580 undercrossing structure
- Shorten the concrete island between the off-ramp and MacArthur Boulevard and relocate the drainage inlet (DI)
- Provide a buffered bicycle lane from Van Buren Avenue to the MacArthur/Grand intersection
- Provide a queuing area for bicyclists on eastbound MacArthur Boulevard making a two-stage left turn onto Grand Avenue
- Add a bus bulb on eastbound MacArthur Boulevard right before the MacArthur/Grand intersection
- Add high visibility crosswalks at the MacArthur/Grand intersection

These proposed improvements are located mostly within City of Oakland right-of-way, except for the EB I-580 Grand Avenue off-ramp, which is within State right-of-way.

On Grand Avenue (between the MacArthur/Grand intersection and the Santa Clara/Grand intersection):

- Shift the median (including signal equipment and other electrical items) towards the west to allow room for protected bicycle lanes in each direction of Grand Avenue
- Add two bus boarding islands (one in each direction of Grand Avenue) with ADA curb ramps
- Relocate/replace drainage inlets
- Restripe lanes and new delineations and add green color to the protected bicycle lanes

- Upgrade the existing lighting system within the Grand Avenue Undercrossing and the park-and-ride lot

These proposed improvements are located within both Caltrans and City of Oakland right-of-way. The portion of Grand Avenue underneath I-580 (Grand Avenue Undercrossing) is within State right-of-way.

On the Westbound (WB) I-580 Grand Avenue off-ramp:

- Implement traffic calming features such as converting the double right-turn lanes to a single right-turn lane and adjusting the right-turn pocket length as well as adding landscaping/tree planting between the off-ramp and the school
- Construct a new MVP to provide space for Maintenance to access and provide watering for new landscaping/trees
- Replace delineations
- Provide additional signs/warning beacons, etc.)
- Provide a queuing area for bicyclists after the off-ramp's crosswalk at the Grand/Santa Clara intersection

These proposed improvements are located within State right-of-way.

On Santa Clara Avenue/WB I-580 Grand Avenue On-ramp:

- Remove the free right-turn slip lane from Grand Avenue to Santa Clara Avenue and convert to a pedestrian plaza
- Reduce the number of lanes from two lanes to one lane downstream of the Grand/Santa Clara intersection to allow room for a two-way bicycle track along Santa Clara Avenue
- Widen sidewalk near the Santa Clara Avenue POC touchdown and also provide ADA curb ramps
- Rebuild traffic island along Santa Clara Avenue and straighten out the crosswalk

These proposed improvements are located within City of Oakland right-of-way.

Conversations with AC Transit may identify a preferred design which relocates some existing bus stops at intersections within the Project footprint to the far-side (past the traffic signals) of those intersection. A potential relocation is to move the existing bus stop along MacArthur Boulevard just before the Grand Avenue/MacArthur Boulevard intersection to after the traffic signal along EB MacArthur Boulevard next to Eastshore Park. Initial coordination with AC Transit indicated that these changes may be operationally beneficial.

As mentioned, ongoing traffic studies, coordination with community stakeholders, and coordination with the City of Oakland and AC Transit may result in changes to these proposed improvements under Build Alternative 2. More detailed information on these improvements will be provided in the Design Phase.



The following Figures 1.3-7 and 1.3-8 were produced by OakDOT to provide a visual representation of the existing conditions of these surface streets and of the proposed conditions after the improvements are constructed, respectively. As can be seen in Figure 1.3-8, the existing POC colored in orange is no longer present and the proposed curb and pavement work, improved pedestrian crossings, bike lane striping, bus boarding islands, etc. are shown. A more detailed project footprint map of Build Alternative 2 depicting the proposed improvements is provided in Figure 1.3-14.

**Figure 1.3-7. Map of Existing Conditions of Nearby Surface Streets**



**Figure 1.3-8. Map of Proposed Improvements to Nearby Surface Streets (Build Alternative 2)**



### **1.3.4 NO BUILD ALTERNATIVE**

Under the No-Build Alternative, there would be no bridge barrier railing replacements and seismic retrofits at the Broadway-Richmond Boulevard UC and the Fruitvale Avenue UC, no bridge barrier replacement at the Webster Street UC, and the existing POC from Santa Clara Avenue to MacArthur Boulevard would remain. Since the existing POC would not be demolished, the structure would still be in need of seismic retrofits, would continue to cause restrictive access and movements for the public as it does not conform to ADA standards, and continue to not meet vertical clearance guidelines. In addition, neither a new replacement POC from Crescent Street to MacArthur Boulevard nor improvements to Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue would be implemented. The No-Build Alternative is considered the environmental baseline against which potential environmental effects of the build alternatives are evaluated.

### **1.3.5 CONSTRUCTION**

The following section describes the estimated construction schedule for the proposed Project, general construction methods and types of equipment, right-of-way impacts, staging areas, traffic impacts, potential utility relocations, etc.

#### **Construction Schedule**

Construction of the Project is anticipated to begin in January 2025 and would last approximately 275 working days under Build Alternative 1 or 235 working days under Build Alternative 2. The estimated number of working days for each alternative will be refined in the Project's next phase, the Design Phase, and could vary depending on contractor resources. The proposed work on all three UCs and demolition of the existing POC may be able to begin either simultaneously or overlap in their construction schedule depending on contractor resources. Construction restrictions such as limiting construction activities to only occur during daylight hours when within 50 feet of residences and restricting work within drainages to occur during the dry season (June 15 to October 15) would be implemented. In addition, vegetation removal would be scheduled between October 1 to January 30 to avoid impacts to nesting birds during their nesting season, February 1 to September 30.

#### **Construction Methods and Equipment**

The bridge barrier railing replacement work at the Webster Street, Broadway-Richmond Boulevard, and Fruitvale Avenue UCs would require a debris management system to be constructed at the start of work to catch any falling debris. Once installed, the existing bridge barrier railings would be removed and their concrete bases would also be demolished. To accommodate the new concrete barriers, portions of the Webster Street UC in both the eastbound (EB) and westbound (WB) directions, a segment of the Broadway-Richmond Boulevard UC in the EB direction, and the Fruitvale Avenue UC in both the EB and WB directions would need to be widening by a few inches because the



new concrete barriers are wider than the existing ones. However, the width of general-purpose lanes and shoulders along I-580 would remain the same.

Seismic retrofit of the Broadway-Richmond Boulevard UC would consist of encasing the structure's support columns with steel column casings. Excavation would be needed at the base of each column to ensure that the steel casings reach the foundation of each column. Once two half cylindrical steel casings are placed around each column, workers would use aerial lifts to secure the two steel casing halves together either by using bolts or by welding the pieces together. Cranes would then be used to inject concrete in the space between each existing column and the steel casing around it. These steel casings would remain permanently secured around each of the 48 columns at the UC. At the Fruitvale Avenue UC, each bridge bent currently consists of 6 columns that support the structure. Workers would use aerial lifts to install wooden panels around each bridge bent that would act as forms for pouring concrete between the columns of each bent to create an infill wall. In total, 4 infill walls would be constructed at the Fruitvale Avenue UC. Excavation would also be required the columns to construct new foundations for each infill wall. equipment such as cranes or excavators are also anticipated at this location.

Demolition of the existing POC would begin from the center of the structure over I-580 and would be demolished moving outwards towards the touchdown ramps at MacArthur Boulevard and Santa Clara Avenue. Demolition of the span directly over the I-580 mainline would require full nighttime closures of EB and WB I-580 and is expected to be completed in about 7 to 10 days. Excavators with hydraulic breaker attachments would be used from the I-580 mainline to break the concrete structures of the POC above. To prevent damage to I-580 from falling debris, the contractor would add a protective layer of either earth fill or steel plates underneath the POC prior to demolition. Trucks would continuously be loading and hauling fallen debris away from the site. Excavators would also be used to dig and remove the concrete foundations of the POC's columns, which would then be replaced with imported fill. To prevent noise impacts to nearby residences, demolition of the outer ends of the POC would be restricted to during the day between the hours of 6 AM and 9 PM.

Construction of the new replacement POC under Build Alternative 1 would begin with first constructing the abutments of the POC at the Crescent Street cul-de-sac and at MacArthur Boulevard, with the portion over the I-580 mainline being constructed last. Abutments are elements of a bridge structure that give vertical support to the bridge or overcrossing at both ends of the structure and is usually made of concrete. Due to the embankment present at the Crescent Street end, some excavation and cutting of the slope would be required to install the abutment's concrete pile footings. Drill rigs would be used at both ends of the new POC to drill piles that are needed for the concrete footing abutments. Cast-in-Drilled-Hole (CIDH) piles would be constructed as the foundations for the new POC's support columns between the abutments. The CIDH piles are estimated to be about 3 feet in diameter. Moving inwards from each abutment,

cranes would be used to construct temporary wooden or steel forms where concrete would be poured in the finished shape of the POC and its support columns.

Build Alternative 2 would consist primarily of restriping activities as well as some concrete work for improvements such as shifting the median along Grand Avenue, widening sidewalks, providing ADA curb ramps, installing protected bike lanes, creating a pedestrian plaza, and other minor pedestrian and bicycle improvements.

### **Impacts to Vegetation**

For the bridge barrier railing replacement work, vegetation clearing and grubbing would be required at each of the UCs in vegetated areas that are close to the existing bridge barrier railings, such as the embankment areas between the I-580 mainline and I-580 on and off-ramps. Vegetation clearing and grubbing would also occur during demolition of the existing POC at its Santa Clara Avenue and MacArthur Boulevard touchdown ramp areas and also where the POC touches down adjacent to the AIMS College Prep High School. Demolition would result in about 48 trees being removed. These areas would be re-vegetated after demolition of the structures. To construct the new replacement POC under Build Alternative 1, approximately 18 mature trees along MacArthur Boulevard and at Crescent Street would also need to be removed to allow space for the new POC's touchdown ramps. Tree or vegetation removal is not anticipated for the surface street improvements under Build Alternative 2. Build Alternative 2 would actually add trees and other landscaping along MacArthur Boulevard and the WB I-580 Grand Avenue off-ramp as a traffic calming measure.

### **Construction Staging Areas**

Construction staging areas are areas used for equipment storage and maintenance, construction materials, fuels, lubricants, and other possible contaminants. Staging areas for the bridge barrier and seismic retrofit work would be located within the Caltrans right-of-way at existing parking lots located underneath and directly adjacent to each of the UCs. For both the Webster Street UC and the Broadway-Richmond Boulevard UC, the lots directly underneath I-580 along Broadway Avenue and Piedmont Avenue and the unpaved area along Richmond Boulevard would be used for staging. The park-and-ride lot located underneath I-580 at the intersection of Fruitvale Avenue and Montana Street would be used for staging at the Fruitvale Avenue UC. These staging areas are depicted in the red cross hatchings in Figures 1.3-9 and 1.3-10 for the Webster Street and Broadway-Richmond Boulevard UCs and in Figures 1.3-11 and 1.3-12 for the Fruitvale Avenue UC.

Staging for the POC demolition would occur at multiple locations. Along MacArthur Boulevard, staging would occur on pavement on an approximate 200-foot segment of MacArthur Boulevard directly adjacent to the POC's touchdown ramp. Both the touchdown ramp and the staging area on MacArthur Boulevard are entirely within the City of Oakland's right-of-way. Staging would also occur along the length of the

touchdown/paved path that borders the fence of the AIMS College Preparatory High School's parking lot. Approximately 10 feet beyond the edges of the POC/paved path would be needed for staging when demolishing this portion of the POC that is mostly at-grade. Staging would extend 10 feet into the school parking lot and therefore would be partially on school property. At the Santa Clara Avenue touchdown ramp, another staging area would be needed within the vegetated area surrounding the touchdown ramp on Santa Clara Avenue. This area extends approximately 10 feet from the edges of the touchdown ramp and includes a 100-foot portion of the WB I-580 Grand Avenue on-ramp.

For construction of the new POC under Build Alternative 1, staging areas would be located within the City of Oakland's right-of-way at both Crescent Street and MacArthur Boulevard as depicted in the red cross hatching shown in the Project footprint provided in Figure 1.3-5. The new POC touches down in a cul-de-sac at Crescent Street. Temporary lane closure on MacArthur Boulevard and the Crescent Street cul-de-sac would be needed to accommodate the staging areas during construction.

For the surface street improvements of Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue under Build Alternative 2, a portion of the existing park-and-ride lot located at the Grand Avenue UC/Lakeshore Park UC directly underneath I-580 (between Grand Avenue and Lakeshore Avenue) would be used for staging as shown in the Project footprint in Figure 1.3-6. This staging area may also be used for POC demolition in addition to the staging areas. This park-and-ride lot is located entirely within Caltrans right-of-way.

### **Right-of-Way and Temporary Construction Easements**

Both build alternatives are located partly within State right-of-way and City of Oakland right-of-way. The Project would not result in the displacement of residents or businesses, although a portion of the AIMS College Preparatory High School's parking lot would be needed for a portion of the demolition work. Coordination with the City of Oakland and the school has been initiated and there would be additional outreach during the Design Phase and prior to construction.

The bridge barrier replacement and seismic retrofit work are common to both build alternatives and are located entirely within State right-of-way. No temporary construction easements (TCEs) would be needed at the Broadway-Richmond Boulevard Undercrossing (UC), Webster Street UC, or Fruitvale Avenue UC. However, demolition of the existing POC would require two TCEs totaling 14,850 square feet. TCE 1 is approximately 13,050 square feet and is located west of I-580 along a portion of MacArthur Boulevard and includes the area under the touchdown ramp that is within City of Oakland right-of-way. TCE 2 is approximately 1,800 square feet and is located on AIMS College Preparatory High School property.



For the new replacement POC under Build Alternative 1, two additional TCEs would be required on both ends of the new POC totaling 11,900 square feet. TCE 3 is located at the east end of the proposed POC at the Crescent Street cul-de-sac in City of Oakland right-of-way and is approximately 3,850 square feet. TCE 4 is located at the west end of the proposed POC at MacArthur Boulevard also within City of Oakland right-of-way and is about 8,050 square feet. In addition, a 1,570 square foot permanent easement would also be required from the City of Oakland along MacArthur Boulevard. The permanent easement is needed because the new POC's touchdown ramp would partially be within City of Oakland right-of-way.

A significant portion of work under Build Alternative 2 is located within the City of Oakland, totaling 89,800 square feet. However, TCEs would not be required for the surface street improvements within City of Oakland right-of-way since City of Oakland Public Works would construct improvements within their right-of-way. Caltrans would construct the improvements under Build Alternative 2 that are within State right-of-way: a portion of the EB I-580 Grand Avenue off-ramp, the segment of Grand Avenue directly underneath I-580 (the Grand Avenue UC), and the WB I-580 Grand Avenue off-ramp.

To summarize, Build Alternative 1 would require four TCEs totaling 26,750 square feet and a permanent easement of 1,850 square feet. Build Alternative 2 would require two TCEs totaling 14,850 square feet.

## **Traffic Management**

The project improvements common to both build alternatives, the bridge barrier replacement work and seismic retrofits, would result in temporary full lane closures of local roads at Webster Street, Broadway Avenue, Piedmont Avenue, Richmond Boulevard, Fruitvale Avenue, Flagg Avenue, and Champion Street. It may be possible to perform this work in phases to allow directional lane closures, or closure of only one direction of travel, instead of full closures. These closures would be necessary when overhang brackets are installed on the undercrossing structures to catch falling debris, existing concrete bridge barriers are demolished, new concrete bridge barriers are poured, and overhang brackets are removed towards the end of construction.

Along the I-580 mainline, temporary barriers would be placed to close both the shoulder and rightmost general-purpose lane during the bridge barrier replacement work at the three UC structures. In addition, some on and off ramps in the vicinity of the bridge barrier replacement work may need to be temporarily closed. However, the majority of on and off ramps near the three UC structures would likely remain open with temporary restriping of on and off ramps and the I-580 mainline to shift traffic to avoid the shoulder and right-lane closures. A Transportation Management Plan (TMP) would be prepared for the Project in the Design phase and would include information on detours and alternate routes for any temporary closures needed.

Demolition of the existing POC would require full nighttime closures of both eastbound and westbound lanes of I-580. Demolition of the existing POC's touchdown ramps would also require full closures of MacArthur Boulevard from Adams Street to Van Buren Avenue and of the WB I-580 Grand Avenue off-ramp and the WB I-580 Grand Avenue on-ramp/Santa Clara Avenue. Any closures of roadways and of I-580 would be identified and addressed in the TMP, and any impacts would be reduced by implementation traffic controls. Detours and advanced noticing would be provided for any road closures to provide alternate access routes. Caltrans would also coordinate with the City of Oakland and property owners to ensure continued access for residents along Santa Clara Avenue and MacArthur Boulevard.

During construction and staging for Build Alternative 1, a temporary lane closure along the west side of MacArthur Boulevard would be required. At Crescent Street, a portion of the cul-de-sac would be needed for staging during construction as well. Various TMP elements such as portable Changeable Message Signs and California Highway Patrol Construction Zone Enhanced Enforcement Program would be used to minimize delays to the traveling public and residents. Flaggers would be used to divert and guide one-way traffic traveling through these two areas. Access to apartment complexes on both ends of the new POC would be maintained throughout construction. After construction, temporary lane closures would be removed, and regular traffic can resume. These closures would be temporary, and their effects would be minimized through implementation of the TMP and coordination with the community.

Build Alternative 2 would also require temporary lane closures of local streets including Santa Clara Avenue, Grand Avenue, and MacArthur Boulevard. Partial closures along Grand Avenue in both the northbound (NB) and southbound (SB) directions would be required for various elements under this alternative like relocating the median, constructing raised concrete islands for separated bike lanes, and bus boarding islands. Temporary full closures of the I-580 WB off-ramp to Grand Avenue and portions of Santa Clara Avenue may be needed for to complete the proposed improvements in this area. These closures would also be temporary, and its effect would be minimized through implementation of the TMP, coordination with the community, and coordination with the City of Oakland.

### **Utility Relocation**

There is a PG&E-owned electrical pull box located along Piedmont Avenue close to one of bridge columns of the Broadway-Richmond Undercrossing that may need to be relocated due to the seismic retrofit work proposed at this location. Detailed utility plans would be provided in the Design phase which may identify additional utility relocations needed.

Figure 1.3-9. Project Footprint – Webster Street UC and Portion of Broadway-Richmond Boulevard UC

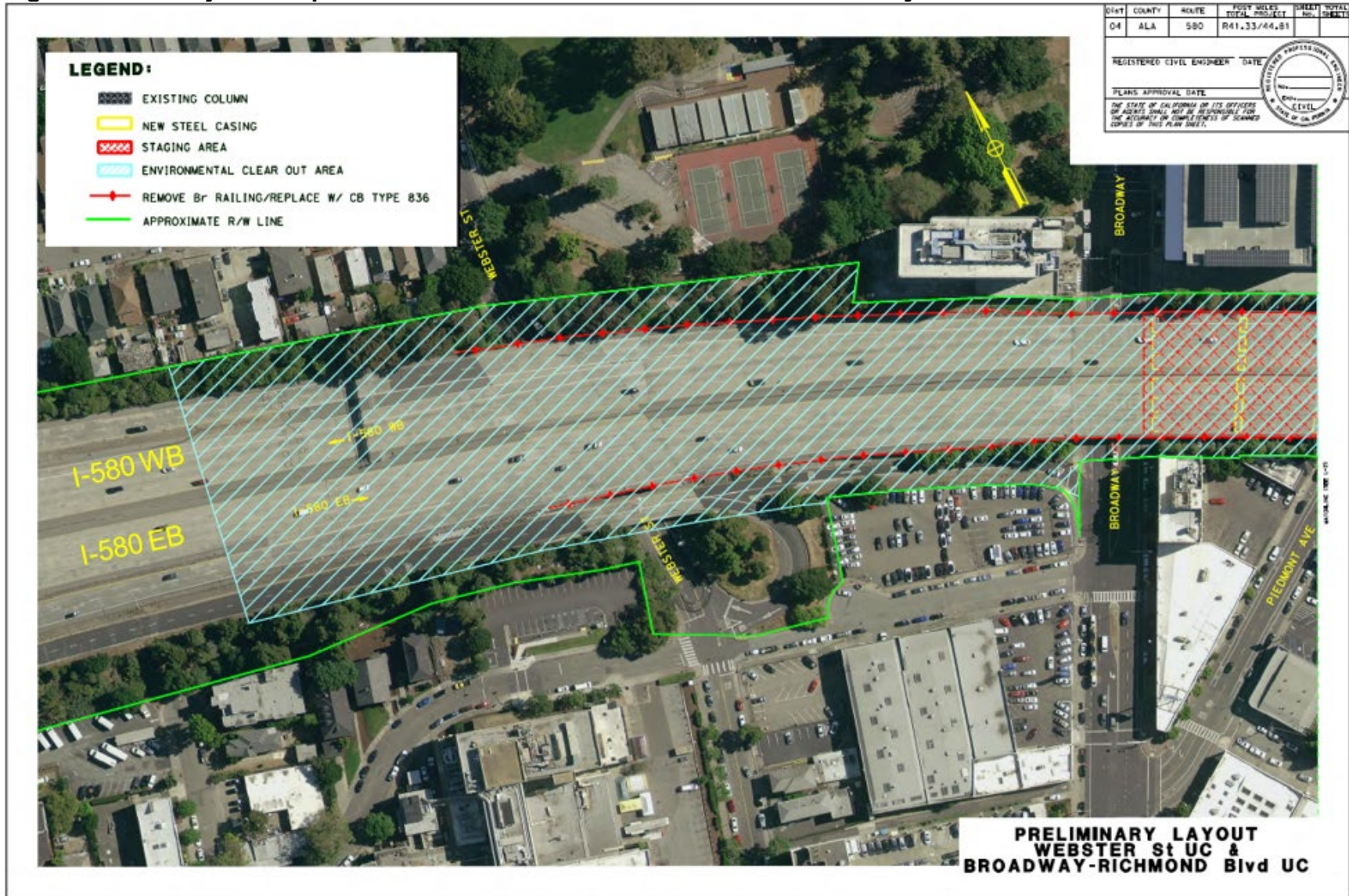




Figure 1.3-10. Project Footprint – Broadway-Richmond Boulevard UC

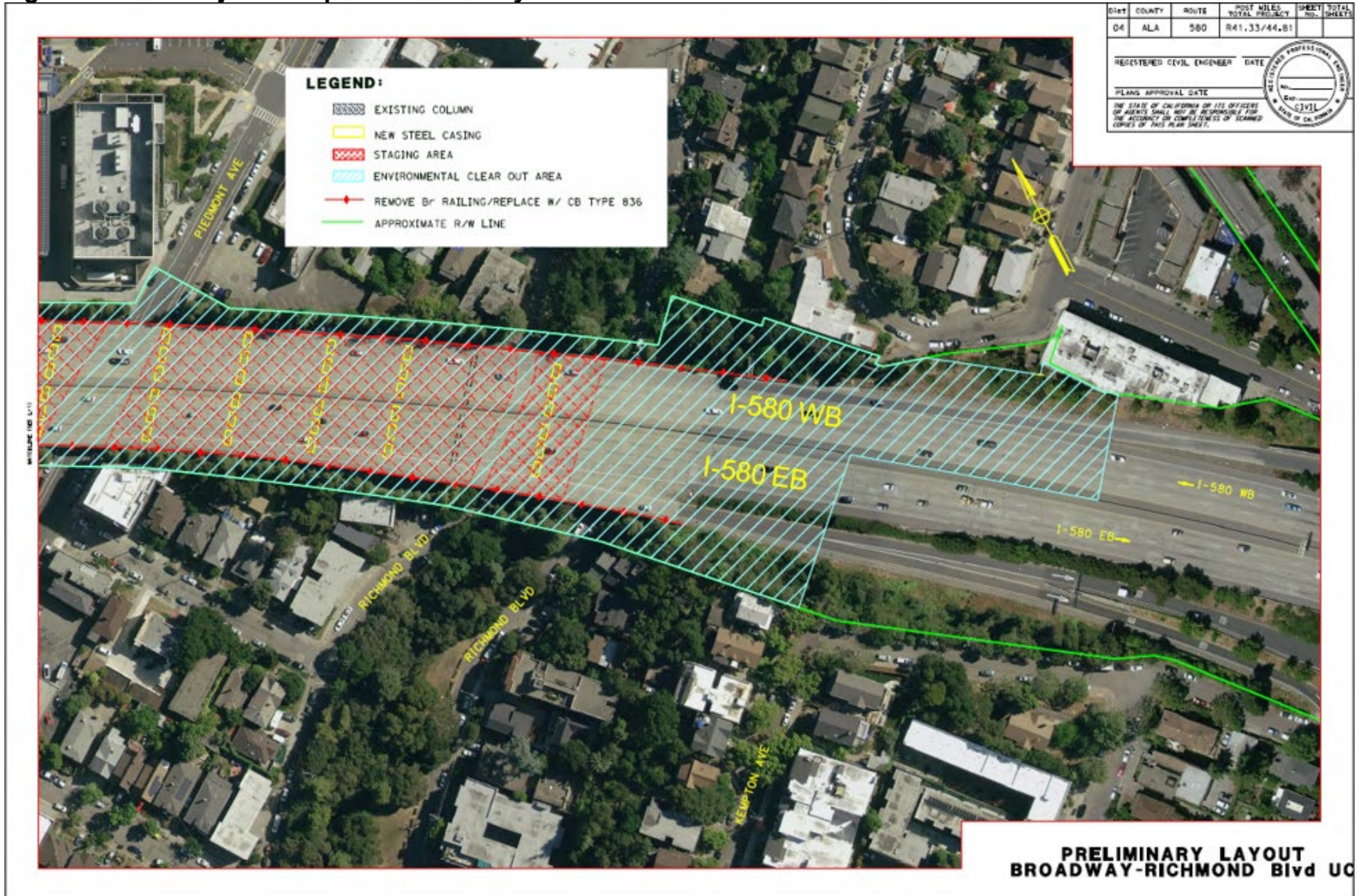




Figure 1.3-11. Project Footprint – Fruitvale Avenue UC (1 of 2)

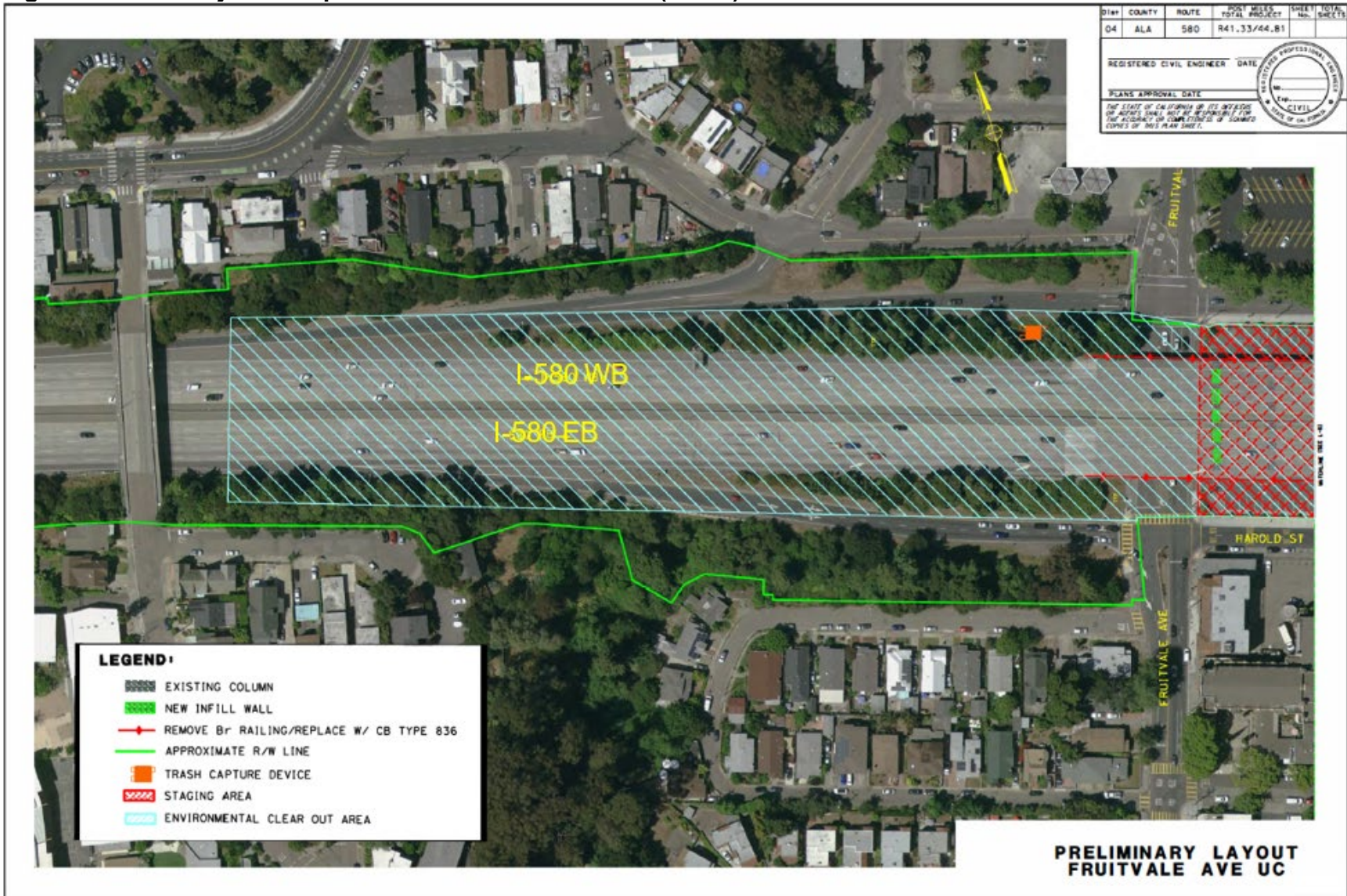




Figure 1.3-12. Project Footprint – Fruitvale Avenue UC (2 of 2)

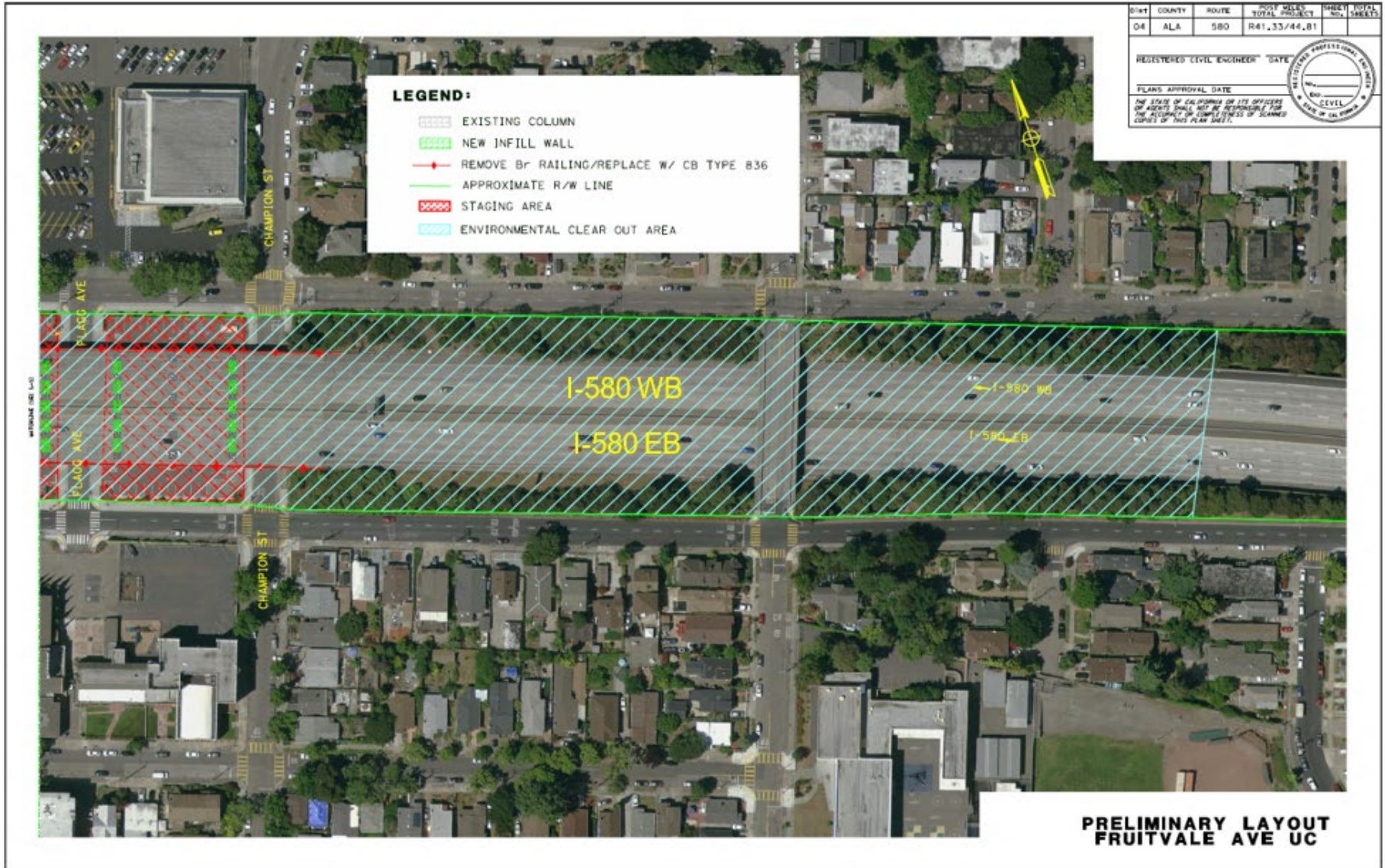


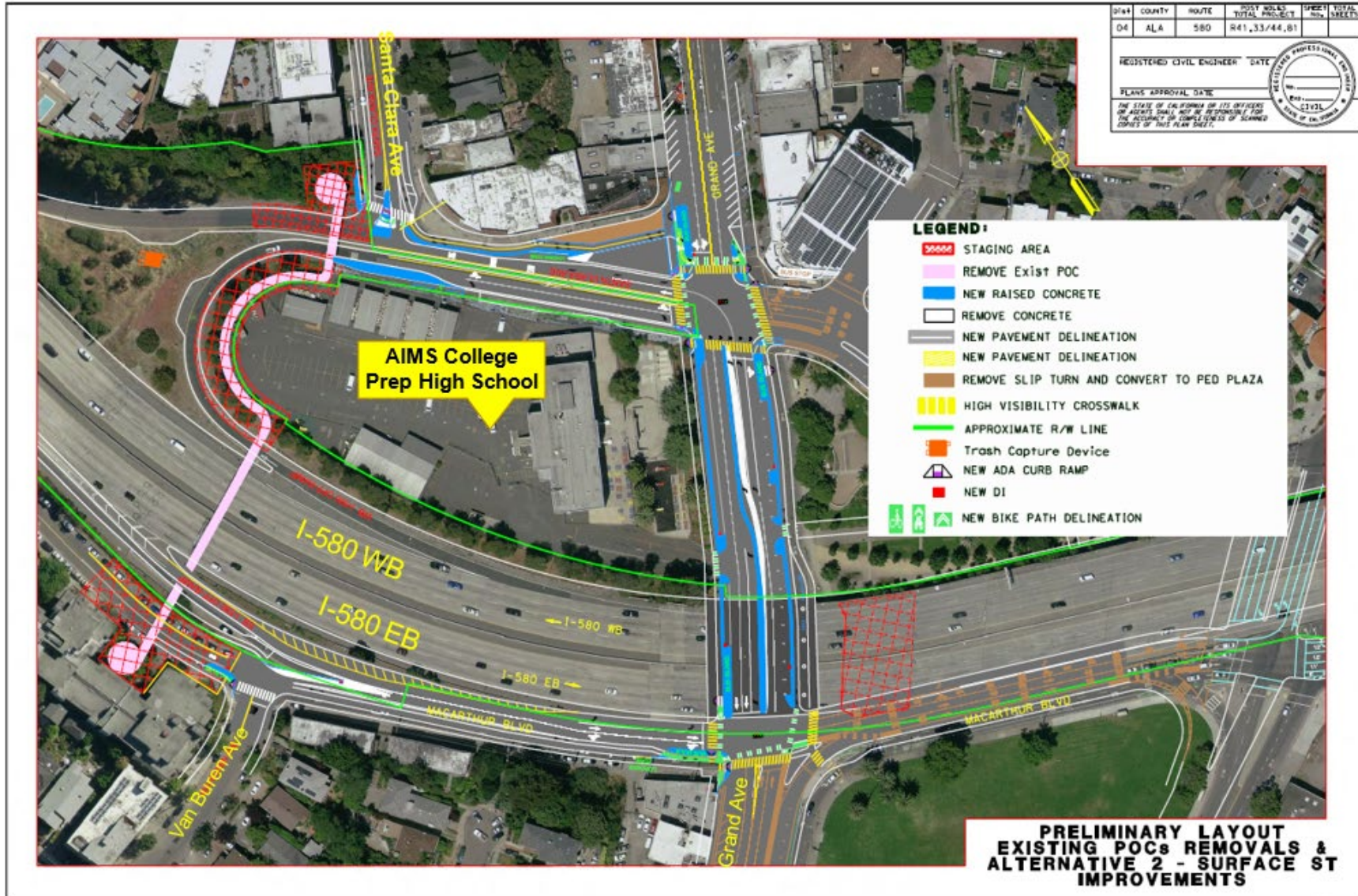


Figure 1.3-13. Project Footprint – Build Alternative 1 (New Pedestrian Overcrossing)





Figure 1.3-14. Project Footprint – Existing Pedestrian Overcrossing Demolition and Build Alternative 2





## 1.4 COMPARISON OF ALTERNATIVES

This section compares the two build alternatives and the No-Build Alternative that are analyzed in this environmental document.

Both of the alternatives meet the purpose and need of the Project. Under Build Alternative 1, the existing POC would be replaced with a new POC from Crescent Street to MacArthur Boulevard. The replacement POC would retain the connection between the neighborhoods on both sides of I-580 and would be approximately 361 feet long. The existing POC's current path of travel is about 970 feet long. Build Alternative 2 proposes surface-street improvements, including bicycle and pedestrian improvements, between the proximity of the existing POC's touchdown ramps along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue. These proposed improvements would potentially reduce the modal conflicts between vehicles and pedestrians/bicyclists through the various traffic calming measures and improved pedestrian and bicycle infrastructure in an area that experiences heavy pedestrian, bicycle, and vehicle traffic. The path of travel between the limits of the proposed surface street improvements is about 1,750 feet long.

Overall, Build Alternative 1 is estimated to take approximately 275 working days, with 145 working days being needed for construction of the replacement POC. Build Alternative 2 would take approximately 235 working days total. However, since the footprint of Build Alternative 2 is partially located within City of Oakland right-of-way, coordination with the City is needed for construction and delivering the improvements concurrently.

The temporary construction impacts of either build alternative would result in similar noise, visual, and traffic impacts. However, the new POC under Build Alternative 1 would pose a greater permanent visual impact on the surrounding community and roadway users, especially to nearby residential apartments at Crescent Street and MacArthur Boulevard. This build alternative would require about 18 trees at MacArthur Boulevard and Crescent Street to be removed to allow space for the structure's touchdown ramps. This would remove trees that currently act as a visual screen of I-580 for these residents. The surface street improvements under Build Alternative 2 would not result in the loss of trees. Additional landscaping and tree planting are actually proposed under Build Alternative 2.

Build Alternative 1's new POC would likely result in the permanent loss of about 5-10 on-street parking spaces along MacArthur Boulevard. A more precise number of on-street parking spaces that may be permanently lost would be determined in the Design Phase. Improvements under Build Alternative 2 would likely result in the permanent loss of about 5-10 on-street parking spaces along Santa Clara Avenue, Grand Avenue, and MacArthur Boulevard. More information on Build Alternative 2's permanent impact to parking spaces will be determined in the Design Phase. Both build alternatives would

also pose temporary impacts to traffic circulation and access during construction. Build Alternative 1 would impact apartment garage access along Crescent Street and MacArthur Boulevard while Build Alternative 2 would primarily affect residents, businesses, and traffic along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue. A Traffic Management Plan that documents lane closures and detours would be implemented for either alternative and would have input from the City of Oakland, AC Transit, and the community.

Under the No-Build, Caltrans would not perform any bridge barrier railing replacements or seismic retrofits at any of the UCs. As such, the structural integrity of these structures would not be improved; the existing bridge barrier railings would remain in fair condition and the UCs would be more susceptible to damage from earthquakes. Under the No-Build, the existing POC from Santa Clara Avenue to MacArthur Boulevard would also not be demolished. As such, this structure would remain non-ADA compliant and the vertical clearance would remain lower than current standards. The No-Build Alternative would not meet the Project's purpose and need.

## **1.5 DEVELOPMENT OF THE BUILD ALTERNATIVES AND ALIGNMENT WITH CALTRANS POLICIES AND INITIATIVES**

This section describes how the build alternatives were refined throughout the planning phase and how they align and support various Caltrans policies and initiatives.

Since the Project was initiated, the new POC from Crescent Street to MacArthur Boulevard under Build Alternative 1 had always been considered. However, Build Alternative 2 had undergone substantial changes during that time. Previously, Build Alternative 2 proposed protected bike lanes and improved lighting systems at the Grand Avenue UC, only within the State right-of-way directly underneath I-580. At Project initiation, the Project's main purpose was to improve the asset conditions of the Webster Street UC, Broadway-Richmond Boulevard UC, Fruitvale Avenue UC, and the existing POC.

Throughout the Planning Phase, the Project Development Team (PDT) decided to also prioritize retaining connectivity between the communities currently served by the existing POC. This was in an effort to avoid adverse community impacts and public controversy, since rebuilding the POC at the exact same location was not feasible and relocation options may be controversial.

The PDT began a partnership with the City of Oakland, which resulted in further refinement in the scope and footprint of Build Alternative 2 to extend beyond State right-of-way and include the current proposed improvements described in detail in Section 1.3.3. Build Alternative 2 had undergone substantial changes during the Planning Phase and, together with Build Alternative 1, are justified below.

Build alternatives that address connectivity between the communities served by the existing POC is supported by federal regulations and Caltrans policies. Through the community impact assessment prepared for the Project, several environmental justice communities were identified within the Project area, with environmental justice communities present around the western end of the existing POC. More information on these environmental justice communities is included in Section 2.1.5, Environmental Justice.

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs agencies like Caltrans to identify and address disproportionately high and adverse effects of federal projects on environmental justice populations to the greatest extent practicable. Since environmental justice populations are currently being served by the existing POC, demolition without an effort to address and retain that connection across I-580 could be seen as a disproportionate impact on that community. With inclusion of the two build alternatives, there may still be temporary construction or permanent impacts as a result of the Project. However, these impacts would not be disproportionately affecting these populations. Caltrans' 2020-2024 Strategic Plan, released in March 2021, also supports avoiding disproportionate impacts on these populations as the Plan identifies "advancing equity and livability in all communities" as a key goal for the Department.

In addition, both build alternatives support alternative modes of transportation or contain Complete Streets features that contribute to the pedestrian and bicycle network. Caltrans Director's Policy 37 (DP-37), Complete Streets, and the related Complete Street Action Plan (CSAP) both recognize that walking, biking, transit, and passenger rail are integral to our vision of delivering a brighter future for all through a world-class transportation network. As a result, all Caltrans transportation projects must make an effort to provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved. This Director's Policy also prioritizes underserved communities that have been historically harmed by previous transportation projects, which would apply to the environmental justice populations identified near the existing POC. Both build alternatives are also supported by Caltrans' 2020-2024 Strategic Plan as promoting a multimodal transportation network is identified as a key goal for the Department.

## **1.6 PROJECT FEATURES**

This Project contains a number of standardized project features, which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found throughout Chapter 2 and are included in Appendix B.

**Table 1-6. List of Project Features (PFs)**

Resource Area	Project Feature Number	Description
<b>Aesthetics and Visual Resources</b>	PF-AES-1	<b>Vegetation Preservation:</b> Minimize the removal of groundcover, shrubs, and mature trees to the maximum extent feasible, utilizing open areas for contractor staging/storage areas. Trees and existing vegetation outside of the clearing and grubbing limits would be protected from the contractor's operations, equipment, and materials storage. High visibility temporary fencing will be placed around vegetation to be protected before roadway work begins.
<b>Aesthetics and Visual Resources</b>	PF-AES-2	<b>Replacement Planting:</b> Replacement highway planting and irrigation along with a one-year plant establishment period will be provided in all areas of highway planting removal consistent with the corridor's Designated Scenic Highway Status and where safety and maintenance requirements can be met.
<b>Aesthetics and Visual Resources</b>	PF-AES-3	<b>Revegetation Planting:</b> All patches of disturbed soil will be reseeded using grasses and forbs.
<b>Aesthetics and Visual Resources</b>	PF-AES-4	<b>Erosion Control:</b> After construction, all areas cleared within the Project limits for uses such as contractor access, staging, and trenching operations would be treated with appropriate erosion control measures (such as mulch, hydroseed, and fiber rolls) where required.
<b>Aesthetics and Visual Resources</b>	PF-AES-5	<b>Construction Staging:</b> Except as detailed in the Contract Plans, staging areas would not affect existing landscaped areas resulting in death and/or removal of trees and shrubs, or disruption and destruction of existing irrigation facilities.
<b>Aesthetics and Visual Resources</b>	PF-AES-6	<b>Construction Waste:</b> During construction operations, unsightly material and equipment in staging areas would be placed where they are less visible and/or covered where possible.
<b>Aesthetics and Visual Resources</b>	PF-AES-7	<b>Construction Lighting:</b> Construction lighting would be directed toward the immediate vicinity of active work to avoid light trespass through directional lighting, shielding, and other measures as needed.
<b>Air Quality</b>	PF-AIR-1	<b>Dust Control:</b> During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. All material transported on site or off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by

Resource Area	Project Feature Number	Description
		clearing, grading, earthmoving, or excavation operations will be minimized to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.
<b>Air Quality</b>	PF-AIR-2	<b>Idling and Access Points:</b> Idling times would be minimized either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes. Clear signage would be provided for construction workers at all access points. Construction activities involving the extended idling of diesel equipment or vehicles would be prohibited, to the extent feasible.
<b>Air Quality</b>	PR-AIR-3	<b>Maintaining Construction Equipment and Vehicles:</b> All trucks that are to haul excavated or graded material on site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads.
<b>Air Quality</b>	PF-AIR-4	<b>Contractor Air Quality Compliance:</b> The contractor will adhere to Caltrans Standard Specifications for Construction, Sections 14.9-02 and 14-9.03, which require contractor compliance with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.



Resource Area	Project Feature Number	Description
		<b>Biological Resources</b>
<b>Biological Resources</b>	PF-BIO-1	<b>Preconstruction Bird Surveys:</b> During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds would be conducted by a qualified biologist no more than 72 hours prior to the start of construction activities. If an active nest is discovered, biologists would establish an appropriate exclusion buffer around the nest. The standard buffer will be 50 feet for passerines (perching songbirds), 100 feet for egrets/herons, and 300 feet for raptors (birds of prey). The buffer zones will be delineated with high-visibility environmental fencing or demarcated with pin flags or ribbon, as applicable based on-site conditions. The area within the buffer would be avoided until the young are no longer dependent on the adults or the nest is no longer active. If a nesting special-status bird species is discovered, the biologist would notify the USFWS and/or CDFW for further guidance. Partially constructed and inactive nests may be removed to prevent occupation. Nesting birds near the Project footprint would be regularly monitored for signs of disturbance. To the extent feasible, tree removal, vegetation removal, and clearing and grubbing activities would not occur during the nesting season.
<b>Biological Resources</b>	PF-BIO-2	<b>Caltrans Standard Best Management Practices (BMPs):</b> The potential for adverse effects to water quality would be avoided by implementing temporary and permanent BMPs outlined in Section 7-104B of the Caltrans' Standard Specifications. Caltrans erosion control BMPs would be used to minimize any wind- or water-related erosion.
<b>Biological Resources</b>	PF-BIO-3	<b>Covering of Trenches and Excavated Holes:</b> To prevent inadvertent entrapment of wildlife during construction, excavated holes or trenches more than one foot deep with walls steeper than 30 degrees would be covered by plywood or similar materials at the close of each working day. Alternatively, an additional 4-foot-high vertical barrier, independent of exclusionary fences, would be used to further prevent the inadvertent entrapment of listed species. If it is not feasible to cover an excavation or provide an additional 4-foot-high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks would be installed. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.
<b>Biological Resources</b>	PF-BIO-4	<b>Monofilament Netting:</b> To prevent wildlife from being entangled, trapped or injured, erosion control materials with plastic mono-filament netting would not be used within the BSA.
<b>Biological Resources</b>	PF-BIO-5	<b>Firearms:</b> No firearms would be allowed in the BSA except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.
<b>Biological Resources</b>	PF-BIO-6	<b>Pets:</b> To prevent harassment, injury, or mortality of sensitive species, no pets would be permitted in the BSA.

Resource Area	Project Feature Number	Description
<b>Biological Resources</b>	PF-BIO-7	<b>Wetlands:</b> No construction impacts, dredge, or fill would occur to any wetlands or waterways.
<b>Biological Resources</b>	PF-BIO-8	<b>Replanting with Native Species:</b> All areas that are temporarily affected during construction would be revegetated as needed with an assemblage of native grass, shrub, and/or tree species to restore habitat values. Invasive, exotic plants would be controlled to the maximum extent practicable, pursuant to Executive Order 13112 (Invasive Species).
<b>Cultural Resources</b>	PF-CUL-1	<b>Discovery of Human Remains:</b> If remains are discovered during excavation, all work within 60 feet of the discovery would halt and Caltrans' Cultural Resource Studies office would be called. Caltrans' Cultural Resources Studies Office Staff would assess the remains and, if determined human, would contact the County Coroner as per Public Resources Code (PRC) Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the Coroner determines the remains to be Native American, the Coroner would contact the Native American Heritage Commission who would then assign and notify a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on respectful treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
<b>Cultural Resources</b>	PF-CUL-2	<b>Discovery of Cultural Materials:</b> If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.
<b>Greenhouse Gas Emissions (GHG)</b>	PF-GHG-1	<b>Emissions Reductions:</b> Implementation of Caltrans Standard Specifications, such as complying with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract and the use of construction best management practices, would result in reducing GHG emissions from construction activities, including but not limited to: <ol style="list-style-type: none"> <li>1. Regular vehicle and equipment maintenance</li> <li>2. Limit idling of vehicles and equipment onsite</li> <li>3. If practicable, recycle nonhazardous waste and excess material.</li> </ol> <p>If recycling is not practicable, dispose of material</p> <ol style="list-style-type: none"> <li>4. Use solar-powered signal boards, if feasible</li> </ol> <p>In addition, with innovations such as longer pavement lives, improvement in traffic management and changes in materials, construction-related GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.</p>
<b>Hazards and Hazardous Materials</b>	PF-HAZ-1	<b>Aerially Deposited Lead Work Plan:</b> Caltrans will prepare a work plan for aerially deposited lead if required during the design (Plans, Specifications and Estimate [PS&E]) phase. Soil samples collected to evaluate aerially-deposited lead would be

Resource Area	Project Feature Number	Description
		analyzed for total lead and soluble lead in accordance with Department of Toxic Substances Control's requirements to determine appropriate actions that would ensure the protection of construction workers, future site users, and the environment.
<b>Hazards and Hazardous Materials</b>	PF-HAZ-2	<b>Asbestos and Lead-Based Paint Survey:</b> Existing interchange structures that would be removed by the Project would be tested for asbestos and lead-based paint by a qualified and licensed inspector prior to demolition. All asbestos-containing material or lead-based paint, if found, would be removed by a certified contractor in accordance with local, state, and federal requirements.
<b>Hazards and Hazardous Materials</b>	PF-HAZ-3	<b>Hazardous Materials Incident Contingency Plan:</b> Prior to construction, a hazardous materials incident contingency plan would be prepared to report, contain, and mitigate roadway spills. The plan would designate a chain of command for notification, evacuation, response, and cleanup of roadway spills.
<b>Noise</b>	PF-NOI-1	<b>Daytime Construction:</b> If feasible, do not schedule construction activities during night, between 9:00 pm and 6:00 am.
<b>Noise</b>	PF-NOI-2	<b>Public Outreach:</b> Public outreach shall be required throughout the project duration of construction to update nearby residents, businesses, and other project stakeholders on upcoming construction activities and any changes to the project construction timeline.
<b>Noise</b>	PF-NOI-3	<b>Staging and Storage Areas:</b> Locate staging and storage areas away from sensitive receptors (especially residences) and, if feasible, enclose staging and storage areas.
<b>Noise</b>	PF-NOI-4	<b>Alternative Methods or Equipment:</b> Use quieter alternative methods or equipment, if feasible. (e.g. use of electricity instead of a generator, if feasible at the location). Prevent idling of equipment near sensitive receptors. Equip any internal combustion engines with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
<b>Noise</b>	PF-NOI-5	<b>Prevent Idling:</b> Prevent idling of equipment near sensitive receptors.
<b>Noise</b>	PF-NOI-6	<b>Internal Combustion Engines:</b> Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
<b>Paleontology</b>	PF-PAL-1	<b>Discovery of Paleontological Resources:</b> If unanticipated paleontological resources are discovered at the job site, do not disturb the resources and immediately: 1) stop all work within a 60-foot radius of the discovery, 2) secure the area, and 3) notify the engineer. Caltrans investigates the discovery and modifies the dimensions of the secured area if needed. Do not move

Resource Area	Project Feature Number	Description
		paleontological resources or take them from the job site. Do not resume work within the radius of discovery until authorized.
<b>Paleontology</b>	PF-PAL-2	<b>Paleontological Mitigation Plan:</b> A project-specific Paleontological Mitigation Plan will be prepared by a qualified principal paleontologist (MS or PhD in paleontology) once adequate project design information regarding subsurface disturbance location, depth, and lateral extent is available.
<b>Transportation and Traffic</b>	PF-TRA-1	<p><b>Traffic Management Plan:</b> A Traffic Management Plan (TMP) would be developed by Caltrans during the Design Phase. The TMP would include elements such as detours, expected lane closures, haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing to reduce impacts to local residents as feasible and maintain access for police, fire, and medical services in the area.</p> <p>Prior to construction, Caltrans would notify adjacent property owners, businesses, and the City of Oakland regarding construction activities, access changes, and lane closures and detours. In addition, Caltrans would coordinate with the local Fire Department and emergency response services prior to construction to minimize potential disruption to emergency services.</p>
<b>Utilities and Service Systems</b>	PR-UTIL-1	<b>Trash Management:</b> All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once daily from the project limits.
<b>Utilities and Service Systems</b>	PF-UTIL-2	<b>Notify Utility Owners of Construction Schedule to Protect Utilities:</b> Caltrans would notify all affected utility companies, such as PG&E, of construction schedules for proposed project work so that they can relocate the gas, telephone, cable, or overhead distribution lines prior to construction and minimize disruption of any utility service.
<b>Water Quality</b>	PF-WQ-1	<p><b>Water Quality Best Management Practices:</b> The calculated disturbed soil area (DSA) is less than one acre, thus preparation of a water pollution control plan (WPCP) is required that includes Best Management Practices (BMPs) to reduce the pollutants in stormwater discharges during construction and permanently to the Maximum Extent Practicable (MEP). The BMPs recommended for this project are as follows:</p> <ul style="list-style-type: none"> <li>• Job site management for effective handling, storage, usage, and disposal practices to control material pollution and manage waste at the job site before they enter storm drain systems or receiving waters.</li> <li>• Concrete waste management is recommended to minimize or eliminate discharge of concrete waste material to storm drain systems.</li> <li>• Sediment control consisting of temporary fiber rolls and silt fences placed on the toe and face of slopes to</li> </ul>

Resource Area	Project Feature Number	Description
		<p>intercept runoff, reduce its flow velocity, release the runoff as a sheet flow, and remove sediment from runoff.</p> <ul style="list-style-type: none"> <li>• Storm drain inlet protection to reduce sediment from storm water runoff discharging from the construction site prior to entering the storm drainage system.</li> <li>• Waste management and materials pollution control (materials delivery and storage, spill prevention and control, solid waste management, hazardous waste and contaminated soil management, sanitary/septic and liquid waste management).</li> <li>• Non-storm water management related to water conservation practices, vehicle and equipment cleaning and maintenance, concrete curing, and concrete finishing.</li> <li>• Wind erosion control measures including adding hydraulic mulch and temporary covers.</li> <li>• Tracking control measures including temporary construction entrances and exits and street sweeping.</li> </ul>

**1.7 PERMITS AND APPROVALS NEEDED**

The Project is not anticipated to require any permits or approvals from external agencies.



## Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

---

This chapter discusses the potential environmental impacts of the Bridge Rehabilitation Project and the recommended avoidance, minimization and/or mitigation measures (AMMs), and mitigation measures (MMs). The proposed AMMs and MMs are also summarized in Appendix C. A list of abbreviations used in this document is available in Appendix D, the list of technical studies prepared for this project is available in Appendix E, and the list of references is available in Appendix F. In addition, Caltrans' Title VI Policy Statement is included in Appendix G. This chapter also addresses issues of concern pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Please see Chapter 3 for the CEQA Checklist.

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered, but no adverse impacts were identified. As a result, there is no further discussion about the following issues in this document.

**Coastal Zone** – The proposed project is not located within the California Coastal Zone. As such, no coastal resources would be affected by construction or operation of the project.

**Growth** – The proposed project would not alter the number of travel lanes along I-580 or of local roads. The project would neither provide new access to an undeveloped area nor influence development opportunities by expanding capacity. Temporary construction activities are not expected to increase the demand for housing. As a result, implementation of the project would not induce growth.

**Wild and Scenic Rivers** – The project area does not traverse any rivers designated as part of the National Wild and Scenic Rivers System. As such, no wild or scenic rivers would be affected by construction or operation of the project.

**Farmlands** – The project area is not located near any farmlands or lands zoned for agricultural uses. As such, the project would not irreversibly convert farmland to nonagricultural use.

**Floodplains** – The proposed project is not located within a 100-year base floodplain. As such, there will be no effects to the 100-year floodplain.

**Air Quality** – The proposed project is exempt from the requirement to determine conformity per 40 CFR 93.126 (Table 2 – Widening narrow pavements or reconstructing bridges (no additional travel lanes)), therefore an air quality study is not required and there would be no impact to air quality. Caltrans would still implement **Project Features AIR-1 through AIR-4**, listed in Appendix B, to avoid and minimize impacts to air quality.

**Timberlands** – The project area is not located near timberlands. Therefore, the project would not convert timberlands to a non-timberland use or otherwise affect timberlands.

**Wildfires** – The Project is not located in or near a very high fire hazard severity zone.

## **2.1 HUMAN ENVIRONMENT**

### **2.1.1 EXISTING AND FUTURE LAND USE**

#### **AFFECTED ENVIRONMENT**

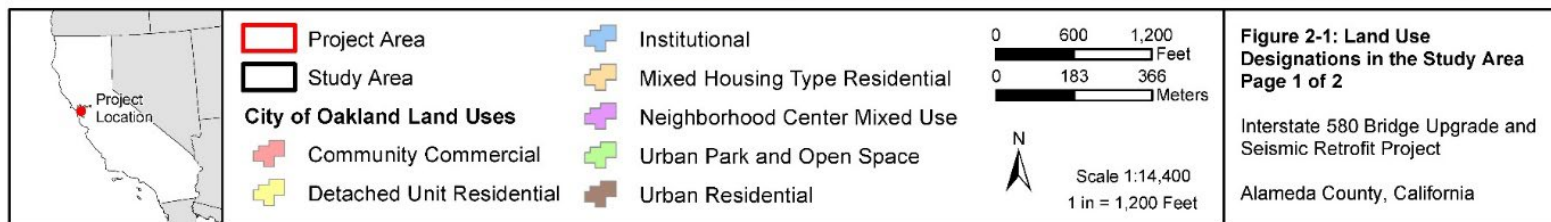
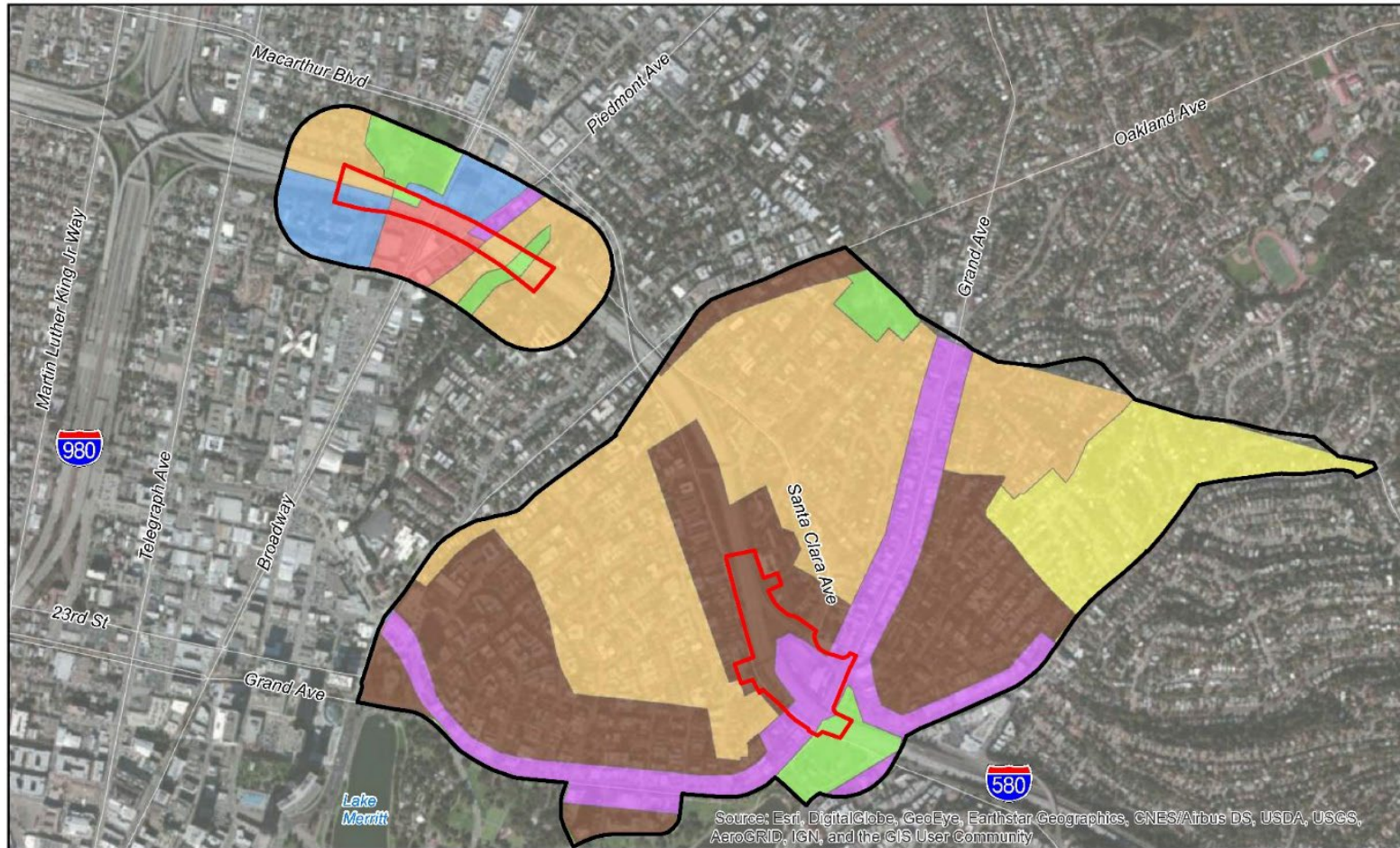
Information in this section is based on the community impact assessment (CIA) prepared for the Project (Caltrans 2022I).

The proposed project area is located within the City of Oakland in Alameda County either along I-580 or along adjacent local streets. I-580 is a Priority Interregional Highway and Freight Route that begins at I-5 in San Joaquin County and ends at US 101 in Marin County. The portions of I-580 within the project limits are primarily an eight-lane divided freeway. The corridor serves local traffic between Hayward and Emeryville, links commuters to economic and employment centers, and supports interregional travel through direct access to I-80 and I-880 (via I-238).

The proposed project area is a transportation corridor surrounded by land uses that are built out and consists of Community Commercial, Urban Residential, Mixed Housing-type Residential, Neighborhood Center Mixed Use, and Urban Residential. Land use types with the entire Project area are shown below in Figure 2-1. The project area is characterized by its walkability and proximity to shops, services, public facilities, and multimodal connections to urban centers. The housing density in the project area varies from medium to high density.

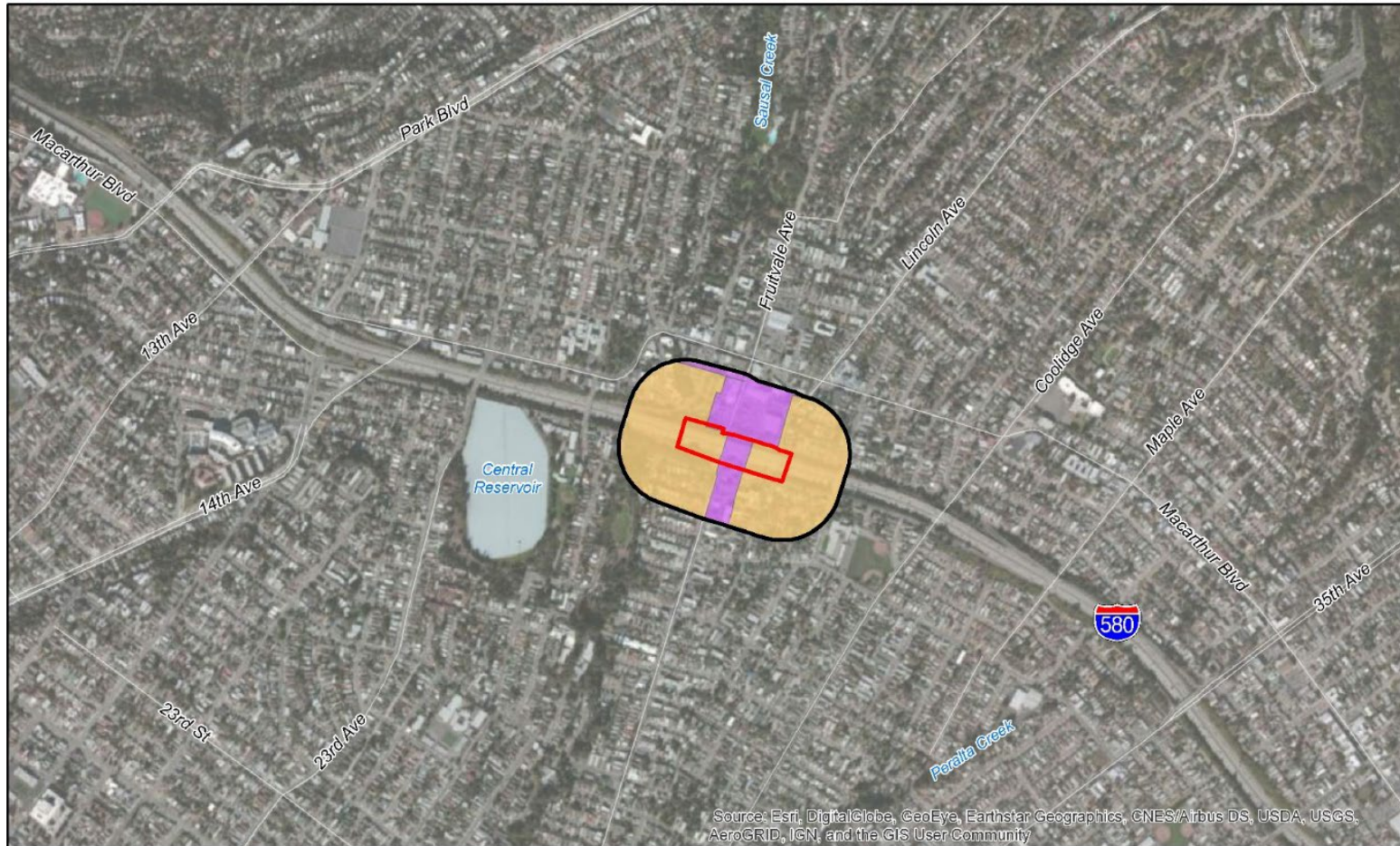
Figure 2.1-1 on the following pages shows the Project area with the various land use designations. The first map, 1 of 2, shows these land use types around the Broadway-Richmond Boulevard UC, Webster Street UC, Grand Avenue, the existing POC, and in general the project area under both build alternatives. Map 2 of 2 shows the land use types around the Fruitvale Avenue UC.

**Figure 2.1-1. Land Use Designations in the Study Area (1 of 2)**





**Figure 2.1-1. Land Use Designations in the Study Area (2 of 2)**





The Webster Street and Broadway-Richmond UCs are in the same general vicinity and are located approximately ¼ mile apart from each other in the Broadway Valdez District area. Various medical institutions including Kaiser Permanente, Sutter Health, Alta Bates Summit Medical Center, and Samuel Merritt University surround the two UCs. Residential developments and city-owned parks are also located in the vicinity of these two UCs. Mosswood Park is located directly north of both UCs, between Broadway Avenue and Webster Street. To the south of both UCs, there are multi-family residential apartment buildings.

The Fruitvale Avenue UC location is located further southeast of the Webster Street and Broadway-Richmond UCs within the City of Oakland's Dimond District. This area primarily consists of Urban Residential, Multi-family Housing, and Commercial uses. Directly north of the Fruitvale Avenue UC lies a commercial district centered around the intersection of MacArthur Boulevard and Fruitvale Avenue that includes restaurants, grocery stores, a drug store, and a bank.

The existing POC spanning I-580 from Santa Clara Avenue to MacArthur Boulevard is located just north of Lake Merritt and connects the Adams Point and Grand Lake neighborhoods. These neighborhoods consist of single-family and multi-family residences as well as commercial businesses located primarily along Grand Avenue that include restaurants, cafes, boutique shops, and grocery stores. The study area at this location is zoned for Urban, Mixed Housing, Neighborhood Center, and Open Space as shown in Figure 2.1 (map 1 of 2). Future land uses in the project areas are informed by the City of Oakland General Plan and zoning code as well as the Broadway Valdez District Specific Plan. All project areas predominantly feature residential and commercial developments, following the Mixed Housing and Neighborhood Center land use and zoning designations. Future development in the Webster Street and Broadway-Richmond UC area, as described in the Broadway Valdez District Specific Plan, places emphasis on mixed-use developments, including multi-family residential buildings and commercial retail establishments.

The Project locations are all within a dense urban setting consisting of Mixed Commercial, Community Facility, Open Space, and Residential uses. Future development near Project locations consists of predominantly residential development as well as some transportation improvement projects. Table 2-1 lists the major development projects within half a mile of the project area.

**Table 2.1-1: Current and Proposed Developments within ½ Mile of the Project Area**

<b>Project Proponent/Name</b>	<b>Description</b>	<b>Status</b>
City of Oakland Department of Transportation (OakDOT) - Grand Avenue Complete Streets Paving Project	Grand Avenue road repavement from Broadway Avenue to MacArthur Boulevard; includes pedestrian, transit, and bicycle improvements; curb management; and traffic calming measures.	In the planning stage
Mosswood Park Community Center	Recreational facility within Mosswood Park.	Approved
Sawmill Residences Oakland California	8-story, 76-unit residential building.	Incomplete Application
3000 Broadway	Mixed-use building with 127 residential units and ground-floor retail on parcel with buildings to be demolished.	Approved
2929 Broadway	7-story mixed-use building with 220 residential units and ground floor commercial.	Under review
Oakland 29	7-story, 91-unit residential building.	Approved
28th and Broadway	Two 7-story mixed-use buildings with total 218 residential units and ground floor retail.	Approved
424 28th Street	47-unit residential building.	Approved
451 28th Street	6-story, mixed-use building with 54 residential units and ground floor retail.	Approved
4315 Lincoln Avenue	Expansion of Lincoln Children’s Center.	Incomplete application
0 Maple Avenue	Single-unit dwelling and attached accessory dwelling unit on vacant parcel.	Approved
Mark Twain Senior Community	Renovation of 109 units.	Approved
500 Grand Avenue	6-story mixed-use building with 40 residential units on parcel with building to be demolished.	Permit extended
ZP @ 3026 Lakeshore Ave	Development of vacant former gas station parcel into food court.	Under review
601 MacArthur Boulevard	25-unit residential building.	Approved
430 Adams Street	10-unit residential building on parcel with single-family home to be demolished.	Approved

Sources: Oakland Planning Bureau, Major Projects List, November 2021. City of Oakland, OakDOT, Major Projects Map, April 2022.

## Consistency with State, Regional, and Local Plans and Programs

The following paragraphs provide an overview of the existing regional, local, and area plans and policies that are applicable to the proposed Project and study area.

### *Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) Plan Bay Area 2050*

MTC and ABAG's Plan Bay Area 2050, adopted in 2021, is an update of the 2017 Plan Bay Area, a long-range integrated transportation and land-use/housing strategy through 2050 for the San Francisco Bay Area (MTC and ABAG 2021). The Plan, which serves as a regional growth plan and Sustainable Communities Strategy, proposes a strategy and supporting transportation investment to guide future growth patterns in a sustainable and equitable manner. The Plan objectives related to the project and project area include fostering healthy and safe communities and supporting transportation system effectiveness:

- Environment: Reduction of environmental risks from existing environmental hazards, expansion of access to parks and open space, and reduction of climate emissions.
- Transportation: Maintenance and optimization of the existing transportation system, create healthy and safe streets, and build a next-generation transit network.

### *Alameda County Transportation Commission (ACTC) Countywide Transportation Plan*

The 2020 update to the Countywide Transportation Plan (CTP) specifies strategic priorities, programs, and transportation improvement projects to be undertaken by the ACTC in the coming 30 years (ACTC 2020). The goals of the CTP have been designed to be consistent with those outlined by the MTC and ABAG in the Plan Bay Area. The CTP focuses on four goals for a multimodal transportation system:

- Accessible, Affordable, and Equitable: Improve and expand connected multimodal choices that are available for people of all abilities, affordable to all income levels, and equitable.
- Safe, Healthy, and Sustainable: Create safe multimodal facilities to walk, bike, and access public transportation to promote healthy outcomes and support strategies that reduce reliance on single-occupant vehicles and minimize impacts of pollutants and greenhouse gas emissions.
- High Quality and Modern Infrastructure: Deliver a transportation system that is of a high quality, well-maintained, resilient, and maximizes the benefits of new technologies for the public.
- Economic Vitality: Support the growth of Alameda County's economy and vibrant local communities through a transportation system that is safe, reliable, and efficient, cost-effective, high-capacity and integrated with sustainable transit-

oriented development facilitating multimodal local, regional, and interregional travel.

### *City of Oakland General Plan*

The City of Oakland General Plan (General Plan) establishes citywide vision and consistent direction for future development (City of Oakland 2021). Initial versions of the General Plan were adopted in 1974 (Noise Element), and multiple updates to the General Plan have occurred through 2021. The General Plan includes policies based on community priorities and values. The future direction and vision of the City is addressed by the goals, policies, and implementation measures in the General Plan. Elements within the City of Oakland General Plan relevant to the project include land use and transportation, safety, and scenic highways:

- Land Use and Transportation Element: Integrate land use and transportation planning, reduce congestion, promote alternative transportation options, provide safe streets and paths for the community, improve air quality, reduce exposure to traffic noise, and improve accessibility for bicycles and pedestrians.
- Safety Element: Protect the health and safety of Oakland residents and others in the city by minimizing potential loss of life and injury caused by safety hazards, reducing seismic hazards, safeguarding Oakland's economic welfare by reducing damage to infrastructure, and reducing social and economic dislocation and disruption resulting from safety hazards. Part of the plan element includes reducing the public's exposure to toxic air contaminants through alternative transportation strategies.
- Scenic Highways Element: Protect and enhance the distinctive character of scenic routes within the city.

### *City of Oakland Bicycle Plan*

The Oakland Bicycle Plan (Bicycle Plan), prepared by the Oakland Department of Transportation (OakDOT), was first adopted in 1999, revised in 2007, and then comprehensively updated in 2019 (City of Oakland, OakDOT 2019). The Bicycle Plan addresses projects and programs to make bicycling an affordable, safe, and healthy mobility option for all Oakland citizens. Goals of the Bicycle Plan include:

- Access: Focus on the disadvantaged groups that experience greater vulnerabilities in the transportation systems, increase access to local destinations, support public transit service, reduce travel times for low-income households, prioritize the construction of bikeways that address disparities and close gaps in the bicycle network between neighborhoods, and serve people with disabilities.
- Health and Safety: Reduce bicycle crashes through safe and comfortable bikeways, promote walking and bicycling activity within the city, and goals to reduce air pollution, asthma rates, and greenhouse gas emissions by encouraging other modes of transportation.

- **Affordability:** Build a bicycle network that provides low-stress bicycle facilities for people in low-income neighborhoods and encourage bicycling as a low-cost transportation alternative.

### *City of Oakland Pedestrian Plan*

The Oakland Pedestrian Plan (Pedestrian Plan) was initially adopted in 2002 to improve pedestrian safety across the city. An update to the Pedestrian Plan was completed in 2017 (City of Oakland, OakDOT 2017). The Pedestrian Plan included contributions from the City of Oakland and OakDOT. The Pedestrian Plan includes the following goals relevant to the project:

- **Holistic Community Safety:** Increase pedestrian safety by improving the safety of streets, sidewalks, and crossings.
- **Equity:** Focus resources to create equitable and accessible walking conditions to meet the needs of the community, improve pedestrian safety for those with poor walking conditions including people with disabilities, and improve walking accessibility to key destinations in the city.
- **Vitality:** Ensure that Oakland’s pedestrian environment is welcoming, well connected, supports the local economy, and sustains healthy communities.

### *Broadway Valdez District Specific Plan*

The Broadway Valdez District Specific Plan was made available in June 2014 and includes future goals for the growth and revitalization of Broadway from Grand Avenue to I-580 (Plan Area) (City of Oakland, Planning and Building Department 2014). Plan goals include promoting multimodal transportation and integrating land use, design, and mobility strategies.

### *City of Oakland Department of Transportation (OakDOT) Strategic Plan*

OakDOT’s Strategic Plan (OakDOT Plan) was first published in 2016 to guide the new city department’s work in studying, managing, and improving the safe movement of goods and people on Oakland city streets, sidewalks, highways, and bridges. The OakDOT Plan was last updated in 2020 (City of Oakland, OakDOT 2020). OakDOT Plan goals for the city’s transportation include achieving safety, equity, affordability, health and prosperity for citizens, and environmental sustainability.

### *OakDOT Grand Avenue Mobility Plan*

The Grand Avenue Mobility Plan is a plan to improve transit services and traffic safety along Grand Avenue between Mandela Parkway and MacArthur Boulevard (City of Oakland, OakDOT 2022a). The Mobility Plan was a collaboration between the City of Oakland, including OakDOT, Alameda-Contra Costa Transit District (AC Transit), and Caltrans. Plan goals include maintaining community character along the Grand Avenue

corridor, improving safety for people of all ages and abilities, and providing universal accessibility for all.

### *Caltrans District 4 Bicycle Plan*

The Caltrans District 4 Bike Plan (Plan) was published in 2018 and identifies infrastructure improvements that can enhance bicycle safety and mobility throughout District 4 and remove some of the barriers to bicycling in the region. The Plan was developed in cooperation with local and regional partners to ensure that the improvements on the State highway system complement proposals for local networks. The Plan's four broad goals include:

- Safety: Reduce the number, rate, and severity of bicycle and pedestrian-involved collisions
- Mobility: Increase walking and bicycling in California
- Preservation: Maintain a high-quality active transportation system
- Social Equity: Invest resources in communities that are most dependent on active transportation and transit

This Plan has identified two projects that are within the Project area: 1) Explore improving ramp crossings on Oakland Avenue and Harrison Street and provide bicycle priority merge treatments and 2) Explore Class IV separated bikeways on Grand Avenue through the interchange.

The table that follows, Table 2.1, includes all the above mentioned existing regional, local, and area plans and policies that are relevant to the proposed Project. With this information, the table compares Build Alternative 1, Build Alternative 2, and the No-Build Alternative and shows which alternatives consistent or which are not consistent with the plans or policies identified.



**Table 2.1-2 Consistency with State, Regional, and Local Plans and Programs**

<b>Policy/ Goals &amp; Objectives</b>	<b>Build Alternative 1</b>	<b>Build Alternative 2</b>	<b>No Build Alternative</b>
<p><b>MTC Plan Bay Area 2050</b></p> <ul style="list-style-type: none"> <li>Environment: Healthy and Safe Communities</li> </ul>	<p>Consistent. Improving seismic stability at two bridges and replacing the bridge railings at three bridges would increase safety to the traveling public by upgrading the facilities' conditions. Build Alternative 1 would remove existing POCs that do not meet seismic standards and replace them with one new POC. The new POC would provide a wider walkway with ADA-compliant slope and add ADA-compliant curb ramps and pedestrian signals to improve pedestrian travel space and pedestrian safety.</p>	<p>Consistent. Improving seismic stability at two bridges and upgrading the bridge railings at three bridges would increase safety to the traveling public by upgrading the facilities' conditions. In addition, Build Alternative 2 would remove existing POCs that do not meet seismic standards and introduce pedestrian and bicycle safety improvements to adjacent surface streets.</p>	<p>Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs, update bridge railings, or address the ADA accessibility issues at the existing POCs, including widening of sidewalks for increased pedestrian travel space. Further structure deterioration could cause potential safety issues for the traveling public. Thus, the No Build Alternative would reduce safety for the traveling public.</p>
<p><b>MTC Plan Bay Area 2050</b></p> <ul style="list-style-type: none"> <li>Transportation: System Effectiveness, Safety, and Enhancement/ Expansion</li> </ul>	<p>Consistent. Improving seismic stability at two bridges and replacing the bridge railings at three bridges would increase the service life of the bridges, contributing to an effective transportation system. Build Alternative 1 would also replace two existing POCs that do not meet seismic standards with one new POC with ADA-</p>	<p>Consistent. Improving seismic stability at two bridges and replacing the bridge railings at three bridges would increase the service life of the bridges, contributing to an effective transportation system. Build Alternative 2 would also remove existing POCs that do not meet seismic standards and introduce pedestrian and</p>	<p>Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs and would not update existing bridge railings to improve the condition of the structures, diminishing the service life of the bridges.</p>

Policy/ Goals & Objectives	Build Alternative 1	Build Alternative 2	No Build Alternative
	compliant facilities to improve the effectiveness of the POC for users.	bicycle safety improvements to adjacent surface streets to improve the effectiveness of the facilities for all possible users.	
<b>ACTC Countywide Transportation Plan</b> <ul style="list-style-type: none"> <li>• Accessible, Affordable, and Equitable</li> </ul>	Consistent. Build Alternative 1 would replace seismically nonstandard POCs with a replacement POC featuring a wider, ADA-compliant walkway, and curb ramps and pedestrian signals to improve pedestrian accessibility and expanding multimodal choices in the project area.	Consistent. Build Alternative 2 would remove a seismically nonstandard POC and introduce surface street improvements that introduce new facilities for pedestrian, bicycle, and public transit users, expanding multimodal choices in the project area.	Generally consistent. The No Build Alternative would not change the existing bridges, which feature sidewalks to allow pedestrian access. However, it would not update existing facilities for ADA compliance issues or improve safe bike access to improve multimodal choices in the project area.
<b>ACTC Countywide Transportation Plan</b> <ul style="list-style-type: none"> <li>• Safe, Healthy, and Sustainable</li> </ul>	Consistent. Build Alternative 1 would increase bridge safety and replace seismically nonstandard POCs with a replacement POC featuring a wider ADA-compliant walkway and curb ramps to support a safe, healthy, and sustainable transportation system.	Consistent. Build Alternative 2 would increase bridge safety, remove a seismically nonstandard POC, and introduce pedestrian, bicycle, and public transit improvements to adjacent surface streets to support a safe, healthy, and sustainable transportation system.	Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs, would not update existing bridge railings to improve the condition of the structures, and would not support safety.
<b>ACTC Countywide Transportation Plan</b>	Consistent. Build Alternative 1 would improve seismic stability at two bridges, replace the bridge railings at three bridges,	Consistent. Build Alternative 2 would improve seismic stability at two bridges, upgrade the bridge railings at three	Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs,

Policy/ Goals & Objectives	Build Alternative 1	Build Alternative 2	No Build Alternative
<ul style="list-style-type: none"> <li>High Quality and Modern Infrastructure</li> </ul>	<p>and replace two existing seismically nonstandard POCs with one new modernized POC to support a well-maintained, resilient transportation system.</p>	<p>bridges, remove existing seismically nonstandard POCs, and introduce surface street improvements with pedestrian, bicycle, and public transit facilities to support a well-maintained, resilient transportation system.</p>	<p>would not update existing bridge railings to improve the condition of the structures, would not improve facilities with certain upgrades including ADA compliance issues, and would not support high quality infrastructure.</p>
<p><b>ACTC Countywide Transportation Plan</b></p> <ul style="list-style-type: none"> <li>Economic Vitality</li> </ul>	<p>Consistent. Build Alternative 1 would increase bridge safety and provide a seismically safe and ADA-compliant replacement POC to facilitate local multimodal travel, which would support the study area’s economic vitality.</p>	<p>Consistent. Build Alternative 2 would increase bridge safety and introduce pedestrian, bicycle, and public transit facilities on adjacent surface streets to facilitate local multimodal travel, which would support the study area’s economic vitality.</p>	<p>Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs, would not update existing bridge railings to improve the condition of the structures, would not improve facilities to be ADA compliant, and would not improve sidewalks or improve safe bicycle access to facilitate local multimodal travel. Thus, this alternative would not contribute to the study area’s economic vitality.</p>
<p><b>City of Oakland General Plan</b></p> <ul style="list-style-type: none"> <li>Land Use and Transportation Element</li> </ul>	<p>Consistent. Build Alternative 1 would increase bridge safety and replace seismically nonstandard POCs with a replacement seismically standard and ADA-compliant POC to improve pedestrian</p>	<p>Consistent. Build Alternative 2 would increase bridge safety and introduce pedestrian and bicycle safety improvements to adjacent surface streets including ADA-compliant improvements to improve</p>	<p>Generally consistent. The No Build Alternative would not change the existing bridges, which features sidewalks to allow pedestrian access. However, it would not update existing facilities for ADA</p>

Policy/ Goals & Objectives	Build Alternative 1	Build Alternative 2	No Build Alternative
	accessibility, expanding alternative transportation options and improving accessibility in the project area.	pedestrian and bicyclist accessibility, expanding alternative transportation options, and improving accessibility in the project area.	compliance issues or improve safe bike access to improve transportation choices in the project area.
<b>City of Oakland General Plan</b> <ul style="list-style-type: none"> <li>• Safety Element</li> </ul>	Consistent. Build Alternative 1 would protect the health and safety of Oakland residents by increasing bridge safety, reducing seismic hazards, reducing infrastructure damage, and improving pedestrian safety with an ADA-compliant POC.	Consistent. Build Alternative 2 would protect the health and safety of Oakland residents by increasing bridge safety, reducing seismic hazards, reducing infrastructure damage, and improving pedestrian and bicyclist safety on surface streets.	Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs, would not update existing bridge railings to improve the condition of the structures, and would not improve facilities with ADA compliance issues.
<b>City of Oakland General Plan</b> <ul style="list-style-type: none"> <li>• Scenic Highways Element</li> </ul>	Generally Consistent. Build Alternative 1 would remove existing POCs and adjacent vegetation and install a new POC. This work will require removal of existing vegetation that contributes to the framework of roads and pathways that add to the Oakland Scenic Route System.	Consistent. Build Alternative 2 would contribute to the framework of roads and pathways that add to the Oakland Scenic Route System.	Generally consistent. The No Build Alternative would not change the existing bridges, which features pathways that are part of the overall Oakland Scenic Route System. However, it would not update existing facilities.
<b>Oakland Bicycle Plan</b> <ul style="list-style-type: none"> <li>• Access</li> </ul>	Generally consistent. Build Alternative 1 would seismically upgrade bridges over existing UCs used for bicycle access and replace existing POCs with	Consistent. Build Alternative 2 would seismically upgrade bridges over existing UCs used for bicycle access, remove seismically	Generally consistent. The No Build Alternative would not change the existing bridges or POCs, which feature sidewalks to allow pedestrian access.

Policy/ Goals & Objectives	Build Alternative 1	Build Alternative 2	No Build Alternative
	a new POC featuring a wider walkway that meets ADA standards in slope and width. The bridge seismic upgrades would continue bicycle access, and the new POC would serve people with disabilities and increase access.	nonstandard and ADA-noncompliant POCs and introduce pedestrian, bicycle, and public transit facilities on surface streets that would expand multimodal choices in the project area.	However, it would not update existing facilities for ADA compliance issues or improve safe bike access to improve multimodal choices in the project area.
<b>Oakland Bicycle Plan</b> <ul style="list-style-type: none"> <li>Health and Safety</li> </ul>	Consistent. Build Alternative 1 would seismically upgrade bridges over existing UCs used for bicycle access and replace existing seismically nonstandard POCs with a new seismically sound ADA-compliant POC. The bridge and POC upgrades would allow healthy and safe bicycle travel.	Consistent. Build Alternative 2 would seismically upgrade bridges over existing UCs used for bicycle access, remove seismically nonstandard and ADA-noncompliant POCs and introduce bicycle facilities on surface streets that would increase safety and encourage bicycle use.	Not consistent. The No Build Alternative would not update the existing bridges or POCs and would not improve safe bike access to promote alternative transportation choices in the project area.
<b>Oakland Bicycle Plan</b> <ul style="list-style-type: none"> <li>Affordability</li> </ul>	Not consistent. Build Alternative 1 would not actively contribute to a bicycle network that encourages bicycling as a low-cost transportation alternative.	Consistent. Build Alternative 2 would introduce bicycle safety improvements to adjacent surface streets to encourage bicycling as a low-cost transportation alternative.	Generally consistent. The No Build Alternative would not update existing facilities to improve safe bike access to promote alternative transportation choices in the project area.
<b>Oakland Pedestrian Plan</b>	Consistent. Build Alternative 1 would improve UC safety and install a new POC with a wider protected ADA-compliant	Consistent. Build Alternative 2 would improve UC safety and introduce pedestrian improvements to adjacent	Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs or

<b>Policy/ Goals &amp; Objectives</b>	<b>Build Alternative 1</b>	<b>Build Alternative 2</b>	<b>No Build Alternative</b>
<ul style="list-style-type: none"> <li>Holistic Community Safety</li> </ul>	walkway and curb ramps to improve the safety of sidewalks and crossings.	surface streets to increase pedestrian safety in the project area.	address the ADA non-compliance at the existing POCs, thus reducing safety for the traveling public. Further structure deterioration could cause potential safety issues for the traveling public.
<b>Oakland Pedestrian Plan</b> <ul style="list-style-type: none"> <li>Equity</li> </ul>	Consistent. Build Alternative 1 would improve UC safety and install a new POC with a wider protected ADA-compliant walkway and curb ramps to improve the pedestrian accessibility and safety in the project area	Consistent. Build Alternative 2 would improve UC safety and introduce pedestrian improvements to improve pedestrian accessibility in the project area.	Generally consistent. The No Build Alternative would not change the existing bridge UCs, which feature sidewalks to allow pedestrian access.
<b>Oakland Pedestrian Plan</b> <ul style="list-style-type: none"> <li>Vitality</li> </ul>	Consistent. Build Alternative 1 would replace existing POCs with a new seismically standard, ADA-compliant POC, which would contribute to enhancing the pedestrian environment to connect the community, support the local economy, and sustain healthy communities in the project area.	Consistent. Build Alternative 2 would install pedestrian improvements in surface streets, which would contribute to enhancing the pedestrian environment to connect the community, support the local economy, and support healthy communities in the project area.	Not consistent. The No Build Alternative would not address the seismic deficiencies at the existing bridges and POCs and would not improve the POCs to be ADA compliant. Thus, this alternative would not create a welcoming pedestrian environment in the project area.
<b>Broadway Valdez District Specific Plan</b>	Generally consistent. Build Alternative 1 would seismically improve the bridge at the Broadway-Richmond UC, which features a sidewalk and	Generally consistent. Build Alternative 2 would seismically improve the bridge at the Broadway-Richmond UC, which features a sidewalk and	Generally consistent. The No Build Alternative would not change the existing Broadway-Richmond or Webster Street UCs and would maintain



<b>Policy/ Goals &amp; Objectives</b>	<b>Build Alternative 1</b>	<b>Build Alternative 2</b>	<b>No Build Alternative</b>
	roadway supporting pedestrian and bicycle facilities. The seismic improvement increases safety at the UC, thus maintaining multimodal transportation options.	roadway supporting pedestrian and bicycle facilities. The seismic improvement increases safety at the UC, thus maintaining multimodal transportation options.	existing pedestrian and bicycle infrastructure and land uses.
<b>Oakland Department of Transportation Strategic Plan</b>	Consistent. Build Alternative 1 would improve UC safety and install a new ADA-compliant POC to improve the pedestrian accessibility and safety in the project area, benefiting environmentally sustainable and affordable transportation options that benefit the health and well-being of Oakland residents.	Consistent. Build Alternative 2 would improve UC safety and install pedestrian, bicycle, and public transit improvements on surface streets, increasing environmentally sustainable and affordable transportation options that benefit the health and well-being of Oakland residents.	Not consistent. The No Build Alternative would maintain the existing seismically nonstandard UCs and ADA-noncompliant POCs.
<b>Oakland Department of Transportation Grand Avenue Mobility Plan</b>	Consistent. Build Alternative 1 would replace the existing POCs with an ADA-compliant POC and improve accessibility for people of all ages and abilities.	Consistent. Build Alternative 2 would improve surface streets with provision of pedestrian, bicycle, and public transit facilities and would provide accessibility for people of all ages and abilities.	Not consistent. The No Build Alternative would not update the existing POCs, which are not ADA compliant, and would not improve safe pedestrian and bike access to provide transportation choices for people of all ages and abilities in the project area.
<b>Caltrans District 4 Bike Plan</b>	Generally consistent. While Build Alternative 1 is not a project identified within the Bike Plan, the new POC would be a new active transportation	Consistent. Build Alternative 2 directly fulfills a project identified by the Bike Plan that calls for exploring Class IV separated bikeways along the	Not consistent. The No Build Alternative would not provide improvements that contribute to an improved bicycle and/or pedestrian network. The

Policy/ Goals & Objectives	Build Alternative 1	Build Alternative 2	No Build Alternative
	structure that generally supports some of the Plan's major goals of increasing safety through providing a safe path of travel for pedestrians and bicycles removed from vehicle traffic and increasing pedestrian and bicycle mobility.	Grand Avenue UC. Build Alternative 2 would implement separated bikeways beyond the UC, between MacArthur Boulevard and Santa Clara Avenue.	existing POC would remain, which is not ADA compliant and is approaching the end of its useful life. Further structure deterioration could cause potential safety issues for the traveling public.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

The improvements common to both build alternatives, the bridge barrier replacements and seismic retrofit work, would occur directly on or underneath I-580 within State right-of-way. Temporary use of adjacent local streets would be necessary during construction of these project improvements. Construction of these shared improvements would not require permanent property acquisitions and would not impact existing land uses. Likewise, demolition of the existing POC under both build alternatives would require temporary construction easements (TCEs) during construction for staging areas. POC demolition would not require any permanent property acquisitions and would not impact existing land uses.

Construction of the replacement POC under Build Alternative 1 would require temporary use of both the Crescent Street cul-de-sac and a portion of MacArthur Boulevard as well as permanent easement of about 0.04 acre of MacArthur Boulevard. As shown in Table 2.1, Build Alternative 1 would be consistent with the majority of state, regional, and local plans and policies. However, Build Alternative 1 would be inconsistent with the Oakland Bike Plan's stated policy of promoting affordability, as the replacement POC under Build Alternative 1 would not actively contribute to a bicycle network that encourages bicycling as a low-cost transportation alternative.

Construction of Build Alternative 2 consists of providing bicycle and pedestrian improvements and traffic calming features along Grand Avenue, Santa Clara Avenue, and MacArthur Boulevard. These roadways are currently used for transportation purposes. This build alternative would take place within both State right-of-way and City of Oakland right-of-way and would require coordination to deliver the improvements concurrently. A parking lot in State right-of-way underneath I-580 between Grand Avenue and Lakeshore Avenue would be used for staging during construction activities. As shown in Table 2.1, Build Alternative 2 would be consistent with state, regional, and local plans and policies.

#### *Permanent Impacts*

Once constructed, the build alternatives would not result in impacts or alterations to existing land uses.

The permanent easement needed for the replacement POC under Build Alternative 1 along MacArthur Boulevard would not result in a change in land use patterns. MacArthur Boulevard is currently used for transportation purposes, which would not change once the new POC is constructed. The bicycle and pedestrian improvements and traffic calming features under Build Alternative 2 would also not result in changes to land use or zoning of

any parcels within the project area and also would not impact any properties within the surrounding area. Neither build alternative would result in impacts to existing land uses.

## **No-Build Alternative**

### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossing would remain and seismic retrofits would not take place. Therefore, the No-Build Alternative would not impact existing land uses in the project area and would not conflict with the development of any projects listed in Table 2-1. The No-Build Alternative, as shown in Table 2.1-1, would be inconsistent with most state, regional, and local plans and policies.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Land use in the area would be unaltered by the Build or No-Build Alternatives. The Project would also be consistent with applicable state, regional, and local plans. No land use AMMs would be required for the proposed Project.

## **2.1.2 PARKS AND RECREATIONAL FACILITIES**

### **REGULATORY SETTING**

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA (Caltrans 2022i) and Section 4(f) (Caltrans 2022j) prepared for the project. A total of five parks and recreational spaces are located within the Project's study area (Figure 2-2): Mosswood Park, Splash Pad Park, Eastshore Park, Oak Glen Park, and William D. Wood Park. These parks and recreational areas are owned by the City of Oakland.

Mosswood Park lies north of the Webster Street UC and serves as an open space for the north Oakland neighborhood of Temescal. Park amenities include a gazebo for performances, basketball courts, a tennis court, playgrounds, a community garden, picnic tables, and open lawn space. During summer, the park is often used for music festivals and concerts. The general public can access the park from Webster Street, Broadway Avenue, and West MacArthur Boulevard.

Oak Glen Park is a small open space park surrounded by urban residential developments on all sides. Glen Echo Creek flows through the middle of the park. The general public can access the park from Piedmont Avenue and from local streets leading to Richmond Boulevard.

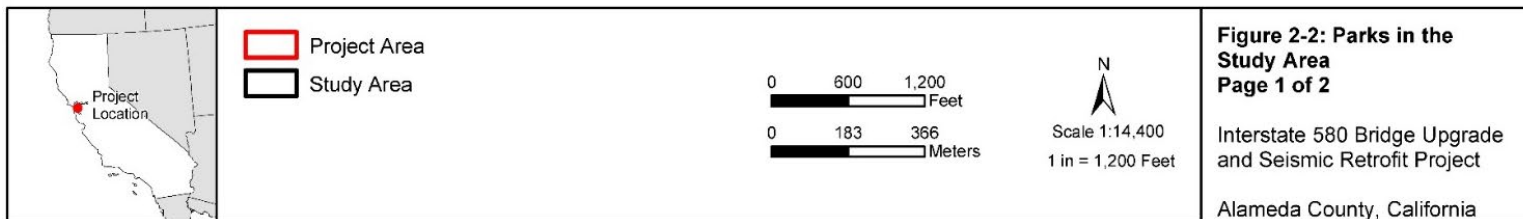
Splash Pad Park and Eastshore Park are located north and south of the Grand Avenue UC, respectively, between Grand Avenue and Lakeshore Avenue. Splash Pad Park features a concrete gathering area as well as lawn areas. On Saturdays, Splash Pad Park hosts the Grand Lake Farmers' Market. Splash Pad Park can be accessed from Grand Avenue, El Embarcadero, Lakeshore Avenue, and MacArthur Boulevard. Eastshore Park, which is separated from Splash Pad Park by MacArthur Boulevard, is a recreational field with a playground area. The Oakland Public Library Lakeview Branch is also located towards the southern end of the park. Eastshore Park can be accessed from Grand Avenue, Lake Park Avenue, Lakeshore Avenue, and MacArthur Boulevard.

William D. Wood Park is located southwest of the Fruitvale Avenue UC and contains a grassy field and walking trails. A major feature of the park is Sausal Creek, which runs along the eastern boundary of the park.

All of the five parks listed above are owned and operated by the City of Oakland Parks, Recreation, and Youth Development Department and are protected by Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303), which protects park land from being converted to non-park land. None of the parks and recreational facilities in the study area are subject to the Park Preservation Act of 1971 (California Public Resources Code [PRC] Sections 5400-5409) because no property would be acquired.

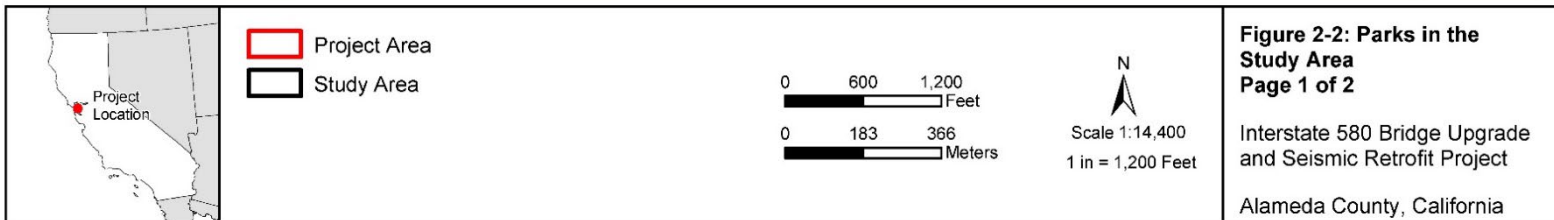
All of the five parks discussed above are shown in relation to Project improvements in Figure 2.2 that follows. Figure 2.2 (1 of 2) corresponds to the maps located around Webster Street and Broadway-Richmond Boulevard UCs and areas around Grand Avenue and the location of the existing POC while Figure 2.2 (2 of 2) shows the Fruitvale Avenue UC location.

**Figure 2.1-2 Parks in the Study Area (1 of 2)**





**Figure 2.1-2 Parks in the Study Area (2 of 2)**





## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

The build alternatives would not require temporary or permanent use of any of the five parks and recreational facilities in the project vicinity. However, access to parks may be temporarily impacted. Proposed construction activities would occur along Broadway Avenue, Richmond Avenue, Webster Street, MacArthur Boulevard as well as along Crescent Street under Build Alternative 1 and Grand Avenue under Build Alternative 2. Implementation of a Traffic Management Plan (TMP) under **Project Feature TRA-1** would minimize the potential for short-term construction impacts. Caltrans would also coordinate with the City of Oakland prior to construction to ensure that access to the parks in the vicinity is maintained throughout the duration of construction. In addition, park visitors could experience temporary construction-related noise and visual effects but would not experience any loss of access or use of recreational facilities.

Noise effects would occur from equipment and demolition activities. Demolition activities would result in the loudest activity and would exceed the Caltrans noise standard of 86 decibels (dBA) at locations closer than 50 feet from the activity and exceeding ambient noise levels, which include highway and community noise, at most adjacent locations. Noise effects would be temporary and not affect use of or access to the parks. Caltrans would implement **Project Features NOI-1 through NOI-6** to address these temporary noise impacts. Visual effects to park users would occur from construction equipment being present and visible in the project area. Trees around parks act as visual shielding and construction equipment and staging would be placed in designated areas to limit visual impacts. To reduce these visual impacts, **Project Features AES-5 and AES-6** would be implemented that would keep staging areas to designated areas and include covering up unsightly construction equipment and waste during construction. These traffic, noise, and visual Project Features are also included in Appendix B.

#### *Permanent Impacts*

Once built, neither build alternative would result in “use” of any of the five parks under Section 4(f) of the U.S. Department of Transportation Act of 1966. “Use” under Section 4(f) occurs when land is permanently incorporated into a transportation facility or if there is temporary occupancy of land during construction. There would be no acquisition of park lands, changes in access to the parks and recreational areas, or visual changes to the parks as a result of the build alternatives.

## **No-Build Alternative**

### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossing would remain and seismic retrofits would not take place. Therefore, the No-Build Alternative would not impact the parks in the project area.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Recreational facilities in the area would be unaltered by the build alternatives and the No-Build Alternative. Aside from the Project Features previously described and included in Appendix, no AMMs would be required.

## **2.1.3 COMMUNITY CHARACTER AND COHESION**

### **REGULATORY SETTING**

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the Project (Caltrans 2022I). The CIA includes a review of land use plans, growth policies, and demographic statistics.

### **Regional Population Characteristics**

Alameda County and the larger urban San Francisco Bay Area have undergone substantial growth since 2010. As shown above in Table 2.1-3, the City of Oakland has

experienced about 9 percent population growth between 2010 and 2020. Alameda County experienced 11% population growth during that same time.

Alameda County is racially diverse with a minority population of 62 percent. The City of Oakland, which includes the entire project area, has a higher percentage of minority residents at 65.6 percent. While the broader study area itself has a lower minority population than the City at 55.7 percent, the portion of the study area around the Fruitvale Avenue UC has the highest percentage of minorities at 69.8 percent (U.S. Census Bureau ACS 2020).

**Table 2.1-4: Population Characteristics of Study Area and Region**

<b>Area</b>	<b>Under 18 Years Old (%)</b>	<b>65 Years and Over (%)</b>	<b>Median Age (Years)</b>	<b>Minority Population (%)</b>
<b>Alameda County</b>	20.6%	13.9%	37.8	71.9%
<b>City of Oakland</b>	19.4%	13.4%	36.6	72.7%
<b>Study Area (Overall)</b>	12.2%	13.5%	36.9	57.0%
Webster Street & Broadway-Richmond Boulevard	9.6%	4.8%	35.1	61.3%
Adams Point & Grand Lake	11.4%	15.3%	37.85	51.9%
Fruitvale Avenue	18.0%	16.0%	44.2	74.3%

Source: U.S. Census Bureau ACS 5-Year Estimates 2020

As shown above in Table 2.1-4, the median age within the study area overall, City of Oakland, and Alameda County are relatively similar, ranging from 37 to 38 years old. The overall study area has about 13.5 percent of the population over the age of 65, similar to Alameda County and the City of Oakland. The Adams Point and Grand Lake areas as well as the Fruitvale area have a higher proportion of the population age 65 or older at 15.3% and 16%, respectively.

### **Household Income**

Alameda County has a median household income of \$104,888. The City of Oakland has a lower median household income at \$80,143. The study area overall has a higher household median income at \$96,024. However, income varies between the three localized study areas around Webster Street and Broad-Richmond Avenue, Adams Point and Grand Lake, and Fruitvale Avenue as shown in Table 2.1-5.

**Table 2.1-5: Regional and Study Area Household Income**

<b>Area</b>	<b>Median Household Income (\$)</b>	<b>Percent Living Below Poverty Threshold (%)</b>
<b>Alameda County</b>	\$104,888	9.3%
<b>City of Oakland</b>	\$80,143	14.6%
<b>Study Area (Overall)</b>	\$96,024	11.1%
Webster Street & Broadway-Richmond Boulevard	\$73,094	16.5%
Adams Point & Grand Lake	\$96,714	9.3%
Fruitvale Avenue	\$64,847	13.4%

Source: U.S. Census Bureau ACS 5-Year Estimates 2020

In Alameda County, 9.3 percent of the population had incomes below the poverty level, which was \$26,200 for a family of four in 2020 (U.S. Department of Health and Human Services 2020). The City of Oakland has a higher percentage of the population living below the poverty line compared to both Alameda County and the overall study area. However, the study area around the Webster Street and Broadway-Richmond UCs contains a higher percentage of the population living below the poverty line at 16.5% of the population.

### **Neighborhoods/Communities/Community Character**

The Project is spread across the Pill Hill, Harrison Street-Oakland Avenue, **Adams Point, Grand Lake**, and Fruitvale neighborhoods in the City of Oakland. The I-580 mainline either crosses through or borders the study area in each of these neighborhoods, and I-580 on and off-ramps lead to local arterial streets within these neighborhoods that are used by motorists, bicyclists, and pedestrians to access homes, businesses, and community facilities. Each of these neighborhoods are further described below.

#### ***Pill Hill***

The Webster Street and Richmond-Broadway UCs are both located within or adjacent to the Pill Hill neighborhood. This neighborhood derives its name from the several medical institutions located in the area including Sutter Health Network facilities, Alta Bates Summit Medical Center, and Samuel Merritt University. This neighborhood also consists of a lot of commercial office buildings. The western portion of the neighborhood

has seen recent residential developments consisting of multi-family, multi-story residential buildings.

### ***Harrison Street-Oakland Avenue***

The Broadway-Richmond UC is also located within the Harrison Street-Oakland Avenue neighborhood, immediately east of Pill Hill. This neighborhood is primarily residential, with Kaiser Medical Center bordering the northwestern portion of the neighborhood along Broadway Avenue. This neighborhood also features commercial businesses primarily located along Broadway Avenue that includes auto dealerships, restaurants, and three grocery stores (Sprouts Farmers Market, Whole Foods Market, and Grocery Outlet).

### ***Adams Point***

The touchdown ramp of the existing POC located along MacArthur Boulevard close to Van Buren Avenue is located within the Adams Point neighborhood. This neighborhood is northeast of Lake Merritt and consists primarily of multi-family housing. Grand Avenue sits at the southern end of the neighborhood and connects residents to restaurants and other commercial businesses. Grand Avenue sits to the south of the neighborhood and connects residents to restaurants and other commercial businesses along that arterial road. The west end of the existing POC to be demolished is located within this neighborhood, with the east end located in the Grand Lake neighborhood, providing a connection between the two communities.

Because this neighborhood is currently served by the existing POC, Caltrans performed early public outreach efforts to share the current build alternatives with members of the community and gather initial community feedback. **In March 2022, Caltrans presented the Project at a monthly Adams Point Neighborhood Council meeting and held a Q&A session.** Based on information gathered at the meeting, it appeared that most attendees had safety concerns around the area that were unrelated to Caltrans operations or existing transportation facilities, but more relating to crime and speeding in the area. The community was interested in improvements that would provide safer conditions in the area. Regarding the existing POC, it appeared to not be extensively used, with only one attendee stating they regularly used it.

Caltrans identified a community stakeholder in this neighborhood, Temple Beth Abraham, which is located along MacArthur Boulevard and would be directly across from the new replacement POC proposed under Build Alternative 1. Caltrans reached out to the Temple in May 2022 to gather information on its current operations and concerns. In addition to holding regular religious services on weekends and weekdays, the Temple also has a daily nursery school on site that is regularly attended by over 50 children. The Temple also offers religious schooling in the afternoons that is usually attended by over 100 children. The Temple has on-site parking, however, congregants also rely on street parking along MacArthur Boulevard and nearby local streets as the parking lot is small. As with the Adams Point Neighborhood Council attendees, the

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*



Temple is also concerned with crime and trespassing in the area. However, the Temple also expressed concern with noise, visual, and traffic impacts that would arise from construction of Build Alternative 1.

### **Grand Lake**

The other touchdown ramp of the existing POC located along Santa Clara Avenue is located within the Grand Lake neighborhood. This neighborhood is north/northeast of Lake Merritt, bordering the City of Piedmont to the northeast and the Adams Point neighborhood to the southwest. The Grand Lake neighborhood consists primarily of multi-family housing but also contains a commercial district along Grand Avenue with restaurants and other commercial businesses.

As mentioned previously, Grand Lake is one of the neighborhoods currently served by the existing POC set to be demolished, with the east end of the POC landing at Santa Clara Avenue. Caltrans also performed early public outreach efforts with this community to share the current build alternatives and gather initial community feedback. **In February 2022, Caltrans presented the Project at a monthly Grand Lake Neighborhood Council meeting and held a Q&A session.** Based on information gathered at the meeting, the attendees were also concerned about safety and crime in the Lake Park Avenue and Grand Avenue areas unrelated to Caltrans operations. Safety issues raised included smash-and-grab thefts and high vehicle speeds through these local roads. The community was interested in improvements that would provide safer conditions and slower vehicle speeds in the area. There did not seem to be opposition to demolition of the existing POC.

Throughout May and June 2022, Caltrans reached out to two community stakeholders in the area to gather information on current operations and concerns. The two stakeholder are Grand Lake Gardens, a senior living facility along Santa Clara Avenue near the east end of the existing POC, and the American Indian Models School (AIMS) College Preparatory High School, a charter school located directly adjacent to the existing POC.

Grand Lake Gardens expressed that most of their resident don't currently use the existing POC, possible due to the steep design and presence of people experiencing homelessness camping around its touchdown ramps. Most of the residents make trips along Santa Clara Avenue to shopping areas along Grand or Lakeshore Avenues. As a result, a main concern of Grand Lake Gardens is pedestrian access along Santa Clara Avenue. From conversations with the school, Caltrans learned that after school hours the school and its lot are not open to the public for recreational use. The main entrance to the school is located along Grand Avenue, and so there are daily drop off-pick-up activities directly in front of the school. The existing POC touches down next to the school parking lot, however, the entrance to the POC from the lot remains locked for safety reasons including preventing people from entering school grounds. As a result,

neither staff nor students utilize the POC to get to/from school. The main concerns for the school include security as well as traffic impacts along Grand Avenue.

### ***Fruitvale***

The Fruitvale Avenue UC is within the Fruitvale neighborhood. The neighborhood is known for its large Hispanic, Latino, and indigenous populations. Fruitvale Avenue and International Boulevard, to the south, are major commercial areas that contain Latino-owned restaurants and host cultural events throughout the year.

### **Community Facilities and Services**

As mentioned previously, the Webster Street and Broadway-Richmond Boulevard UCs are located within mixed-use, commercial and residential neighborhoods that are surrounded by medical institutions, Mosswood Park, and commercial businesses primarily along Broadway Avenue that includes grocery stores. The Fruitvale Avenue UC is also located in a mixed-use residential and commercial neighborhood that contains restaurants, grocery stores, and shops. There are two schools located near the Fruitvale Avenue UC, the Notes Music Academy and the Francophone School's Satellite Campus. Additional community resources at Fruitvale include the William D. Wood Park, Saint Jarlath Catholic Church, and Highland Hospital about 0.8 miles away from the UC.

The Project areas that include the POC demolition and the two build alternatives, the replacement POC and surface street improvements, are also located within the mixed-use residential and commercial neighborhoods of Grand Lake and Adam Point. Residences in these areas consist of both single and multifamily housing. Community resources include the previously mentioned Grand Lake Gardens located along Santa Clara Avenue, about 100 feet away from the existing POC's touchdown ramp at Santa Clara Avenue and the Temple Beth Abraham located along MacArthur Boulevard across the street from the proposed location of new POC's touchdown ramp under Build Alternative 1. There are commercial districts in the area primarily along Grand Avenue and Lakeshore Avenue. The Grand Avenue Business Association is a business district with 155 members and the Lakeshore Avenue Business Improvement District has 88 members. On Saturday mornings, the Grand Lake Farmer's Market takes place at Splash Pad Park along Grand Avenue and Lake Park Avenue, just north of the Grand Avenue UC. Street vendors and food trucks are often present along Grand Avenue and Lake Park Avenue on the weekends. Other community resources in this area include the previously mentioned AIMS College Preparatory High School, a charter school located within the former Lakeview Elementary School building at the corner of Grand Avenue and Santa Clara Avenue, and the Oakland Public Library's Lakeview Branch located south of the Grand Avenue UC and MacArthur Boulevard. Aside from Splash Pad Park, other parks in the area include Eastshore Park and Lake Merritt.

## Housing

An aspect of community character is character cohesion, which refers to resident's sense of belonging or attachment to neighbors and institutions in a defined area. A high degree of community cohesion may be indicated by a long tenure of residents, high rates of home ownership, and ethnic and racial homogeneity. Cohesion can also refer to the degree of interaction among individuals, groups, and institutions that make up the community. Table 2.1-6 below provides more information on housing characteristics in the region and study areas.

**Table 2.1-6: Regional and Study Area Housing Characteristics**

Area	Total Housing Units (#)	Total Occupied (#)	Renter Occupied (%)	Owner Occupied (%)	Tenure of 10 Years or More (%)
<b>Alameda County</b>	605,767	573,174	46.4%	53.6%	44.0%
<b>City of Oakland</b>	171,749	160,095	59.1%	40.9%	42.4%
<b>Study Area (Overall)</b>	16,378	15,077	74.7%	23.2%	36.3%
Webster Street & Broadway-Richmond Boulevard	3,227	2,929	68.1%	16.0%	24.4%
Adams Point & Grand Lake	11,481	10,605	78.9%	21.1%	38.4%
Fruitvale Avenue	1,670	1,546	58.8%	50.8%	47.8%

**Source: U.S. Census Bureau ACS 5-Year Estimates 2020**

The overall study area features a mix of multi-family and single-family housing, with multi-family housing being most common in the Adams Point and Grand Lake neighborhoods.

Both Alameda County and the City of Oakland also have populations experiencing homelessness living within them. Unsheltered individual may live in vehicles, tents, or makeshift shelters. The most recent count of the unsheltered population was conducted in 2019 and showed 8,022 individuals in Alameda County and 4,071 individuals in the City of Oakland (EveryOne 2019). Areas underneath I-580 in State right-of-way as well as areas adjacent to the project area have been or currently act as encampment sites for populations experiencing homelessness. As of April 2022, there is an encampment located next to Mosswood Park along Wester Street, north of the Webster Street UC (Oakland Encampment doc). No encampments have been officially recorded at the

Broadway-Richmond, Grand Avenue, or Fruitvale UCs. However, a visual survey conducted in April 2022 observed tents along the sidewalk at the Grand Avenue UC, possibly indicating the presence of unsheltered individuals. Encampments have also been recorded close to the Grand Avenue and Fruitvale Avenue UCs between 2015 and 2017 (Anti-Eviction Mapping Project 2022). Only sanctioned encampments are allowed within Caltrans and the City of Oakland right ways. The City of Oakland considers populations experiencing homelessness a serious concern and actively responds by providing shelter and services through the Homeless Emergency Aid Program.

**Economic Conditions**

The Project area includes several business districts that feature small and large commercial businesses that attract employees and customers from throughout the City of Oakland and the larger Bay Area. Many of these businesses are concentrated along commercial districts on Broadway Avenue, Fruitvale Avenue, and Grand Avenue.

Based on 2019 data collected by the Longitudinal Employer-Household Dynamics (LEHD) program at the U.S. Census Bureau, the Project study area has 6,720 jobs, up from 6,257 in 2010. The majority of workers, 54.8%, are between the ages of 30 and 64. A majority (50.6%) also commute less than 10 miles to their jobs in the study area. Table 2.1-7 below shows the number of jobs and the biggest job sectors in the study area.

**Table 2.1-7. Jobs Located in Study Area**

<b>Job Sectors</b>	<b>2010</b>	<b>2019</b>
<b>Total Number of Jobs in Study Area</b>	6,257	6,720
<b>Job Sectors</b>		
Health Care and Social Assistance	39.1%	30.8%
Retail Trade	16.9%	17.7%
Accommodation and Food Services	8.5%	14.2%
Other Services (excluding Public Administration)	9.3%	9.7%
Professional, Scientific, and Technical Services	7.9%	7.4%

The unemployment rates within the Project study area are also significantly lower than in the City of Oakland overall and slightly lower than in Alameda County. See Table 2.1-8 below for a comparison of the unemployment rates in the study area, City of Oakland, and Alameda County.

**Table 2.1-8. Unemployment Rates in Study Area, City of Oakland, and Alameda County**

Region	Unemployment Rate (2020)
Alameda County	4.7%
City of Oakland	6.0%
Project Study Area	4.3%

## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

The proposed build alternatives would result in temporary noise, visual, and traffic impacts due to construction to residents, visitors, and community resources within the Project area.

Demolition of the existing POC spanning I-580 from Santa Clara Avenue to MacArthur Boulevard would be the noisiest construction activity and would also require temporary use of a portion of the AIMS College Prep High School parking lot, which the Head of School indicated would not result in any disruption of school activities. Caltrans has completed a Construction Noise Analysis Report in 2022 (Caltrans 2022d) that is further described in Section 2.2.5, Noise. Results from that report show that the predicted construction noise levels generated from POC demolition, bridge barrier replacements, and seismic retrofits would exceed Caltrans' noise standard of 86 decibels (dBa) at locations closer than 50 feet from construction activities, and for POC demolition would exceed ambient noise levels at surrounding locations. To minimize construction noise impacts, Caltrans would implement various Project Features that include limiting construction to daytime hours, etc. as described in **Project Features NOI-1 through NOI-6**. Caltrans will also implement **AMMs NOI-1 and NOI-2** that would call for noise control and monitoring to take place at schools and apartments located close to construction activities and recommends quieter construction techniques at the Fruitvale Avenue UC, respectively.



Caltrans also prepared a Visual Impact Assessment (VIA) for the Project, which is further described in Section 2.1.8, Visual/Aesthetics. In terms of temporary visual impacts, vegetation removal is anticipated in addition to the presence of construction equipment and construction staging areas that may be visible to residents, businesses, and roadway users. Staging areas and demolition activities would take place directly behind the AIMS College Prep High School's parking lot, and would include some encroachment into the lot, and so would likely be visible to students and staff. In addition, should Build Alternative 1 be chosen, there would be staging areas located along MacArthur Boulevard directly in front of Temple Beth Abraham. There is also the potential for light and glare impacts to residents and nearby businesses during nighttime construction. Implementation of **Project Features AES-1 through AES-7** would minimize these visual impacts described above.

Local residents, businesses, and motorists on I-580, Fruitvale Avenue, Webster Street, Broadway Avenue, Grand Avenue and other local roads could also experience access impacts from any lane closures and detours needed during construction of either build alternatives. This includes traffic impacts to regular operations of Temple Beth Abraham along MacArthur Boulevard and AIMS College Prep High School along Grand Avenue. However, property access would be maintained throughout project construction. In addition, the Project would include **Project Feature TRA-1**, a traffic management plan (TMP), that would be developed with input from the City of Oakland, Temple Beth Abraham, AIMS College Prep High School, and other stakeholders to minimize the potential for short-term traffic impacts during construction.

Surveys would be conducted to identify encampments in the project area prior to project construction. If encampments are identified, Caltrans will follow its current procedures for notification to vacate for individuals at the unsheltered encampment.

Overall, construction activities would not change the existing character of the communities within the Project study area.

### *Permanent Impacts*

Once constructed, neither build alternative would result in changes to land use, force businesses or residents to relocate, or affect employment rates or economic conditions in the Project area. Both build alternatives would also not substantially affect traffic patterns and would instead retain connectivity between Adams Point and Grand Lake either through a safe, ADA-compliant replacement POC under Build Alternative 1 or improved bicycle and pedestrian infrastructure along Grand Avenue and other surface streets under Build Alternative 2.

Visual resources throughout the Project limits would be altered from the proposed improvements. POC demolition would require removal of dense groupings of trees and shrubs at Santa Clara Avenue and MacArthur Boulevard. However, these areas would be revegetated with appropriate native tree or shrub species to help restore scenic quality. The new replacement bridge barrier railings at the various UCs, seismic

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*

retrofitting at the Fruitvale Avenue UC, and the new replacement POC under Build Alternative 1 would all introduce new structural elements that would be noticeable for roadway users and surrounding residents. The new POC structure would also present a substantial visual change for Temple Beth Abraham since the new structure's touchdown ramp would be located directly in front of the Temple. However, **Visual AMMs AES-1 through AES-3** would be implemented that would require these improvements be aesthetically treated to better blend in with the surrounding visual environment. Aesthetic treatments would reduce visual impacts to a moderate level over time for both build alternatives. The surface street improvements unique to Build Alternative 2 include enhanced lighting, restriping, and addition of protected bike lanes. These improvements would already be aesthetically similar to improvements proposed by OakDOT in their Grand Avenue Mobility Plan.

While most of the proposed improvements under both build alternatives would not result in substantial permanent impacts to existing traffic patterns, the surface street improvements under Build Alternative 2 have the potential to impact student drop-off/pick-up activities at AIMS College Prep High School along Grand Avenue. This was a concern raised by the AIMS College Prep High School's Head of School. Increased coordination with both the school and the City of Oakland would take place to refine the alternative to avoid adverse traffic impacts to the school's normal operations.

However, the build alternatives do have an expected impact on parking in the Project area. Build Alternative 1's new POC would likely result in the permanent loss of about 5-10 on-street parking spaces along MacArthur Boulevard. Likewise, the surface street improvements under Build Alternative 2 would result in the permanent loss of about 5-10 on-street parking spaces along Santa Clara Avenue, Grand Avenue, and MacArthur Boulevard. A more precise number of on-street parking spaces that may be permanently lost under either build alternative would be determined in the Design Phase.

In addition, while Caltrans has not conducted a thorough evaluation of active transportation and transit travel patterns or needs within the project area, Caltrans Office of Traffic Operations conducted a pedestrian and bicycle count for the existing POC located in the Adams Point and Grand Lake neighborhoods. These counts were taken between October 12, 2021 and October 18, 2021 and the results showed a weekday average of about 16 pedestrian trips and 2 bicycle trips. The weekend average was about 28 pedestrian trips and 1 bicycle trip. After demolition of the existing POC, it is expected that the current POC's users would likely use the Grand Avenue UC to cross I-580, or perhaps the new POC under Build Alternative 1.

Neither build alternative would result in permanent, adverse impacts or relocations to the AIMS College Prep High School, Temple Beth Abraham, Grand Lake Gardens, or other community facilities.

## **No-Build Alternative**

### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and existing, non-ADA compliant POC would remain. There would not be construction of a new POC or any surface street improvements. Therefore, the existing community character would remain unchanged from current conditions.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Impacts from construction would be limited in scope and would be addressed through implementation of the visual, noise, and traffic Project Features and AMMs described previously and in their respective sections of this document and in Appendices B and C. In addition to the Project Features described, the following Visual/Aesthetic and Noise AMMs would be included in the Project:

**AMM-AES-1: Aesthetic Treatment of Bridge Support Columns and Walls.** The proposed steel casings at the Broadway-Richmond Boulevard I-580 Undercrossing (PM 44.51) shall be architecturally treated to blend with their surrounding environment. Additionally, the proposed infill bridge support walls at the Fruitvale Avenue Undercrossing (PM R41.3) shall have architectural treatment to blend with the visual character of their surrounding environment, using context-sensitive designs. This may include form lines and/or art designed by and representative of the local community. See Section 2.1.8, Visual/Aesthetics, to see simulations of the aesthetically treated bridge support columns.

**AMM-AES-2: Aesthetic Treatment of Bridge Barrier Railings.** The proposed Type 836 bridge barrier railings over Webster Street (PM 44.81), Broadway-Richmond Boulevard (PM 44.51), and Fruitvale Avenue (PM R41.3) shall be architecturally treated to minimize their visual impact on the I-580 corridor and the surrounding visual environment. The precise architectural treatment would be determined during the project's detailed design phase. See Section 2.1.8, Visual/Aesthetics, to see simulations of the aesthetically treated bridge barrier railings.

**AMM-AES-3: Aesthetic Treatment of new Proposed Pedestrian Overcrossing.** The new pedestrian overcrossing structure proposed by Alternative 1 shall have architectural treatment to blend with the visual character of its surrounding environment, using a context-sensitive design. This may include treatments of the structure's supports. Particular care shall be placed on the design of the new north and south landings at Crescent Street and MacArthur Boulevard, to ensure that they blend harmoniously with the visual environment of both locations. See Section 2.1.8, Visual/Aesthetics, to see simulations of the aesthetically treated new POC.

**AMM-NOI-1: Construction Noise Control and Noise Monitoring.** Construction noise control and monitoring will be included as part of the Contract documents to minimize

construction noise. Examples of noise control measures may include temporary enclosures or stockpiles of excavated material between noisy activities and noise sensitive receptors or around activities with high noise levels, using smaller equipment or equipment with lower noise levels, etc. This AMM will be implemented for POC demolition work near AIMS College Prep High School and nearby residences and for seismic retrofit at the Fruitvale Avenue UC near the Francophone School's Satellite Campus.

**AMM-NOI-2: CIDH Piles at Fruitvale Avenue UC.** Recommend the use of Cast-in-Drill-Hole (CIDH) pile driving at this location for seismic retrofit and foundation work instead of impact pile driving.

## **2.1.4 RELOCATIONS AND REAL PROPERTY ACQUISITION**

### **REGULATORY SETTING**

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix C for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix G for a copy of the Department's Title VI Policy Statement.

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the Project (Caltrans 2022I) as well as estimates provided by Caltrans' Division of Right-of-Way.

The proposed build alternatives would be constructed mostly within existing State right-of-way and adjacent surface streets, although some staging areas and portions of work are within City of Oakland right-of-way. Seismic retrofits and bridge barrier railing replacements at the Webster Street, Broadway-Richmond, and Fruitvale Avenue UCs would take place within State right-of-way. Build Alternative 1 would require a permanent easement as well as temporary construction easements (TCEs) to accommodate construction of the new replacement POC. While a large portion of the proposed improvements under Build Alternative 2 are located within City of Oakland right-of-way, TCEs would not be needed. Instead, Caltrans would construct the portion of Build Alternative 2 located at the Grand Avenue UC and the WB I-580 Grand Avenue off-ramp that are fully within State right-of-way. The City of Oakland Public Works would

deliver the improvements within the City’s right-of-way, with the two agencies coordinating construction schedules.

The proposed temporary and permanent right-of-way requirements for each of the build alternatives are identified in Table 2.1-9. The actual impacts to right-of-way will be further refined in the Design phase of the Project.

**Table 2.1-9. Estimated Right-of-Way Requirements for Build Alternatives**

Alternative	Location	Purpose	Right-of-Way Requirement	Square Feet
Improvements Common to Both Build Alternatives	AIMS College Prep High School Parking Lot	Demolition of Existing POC/Staging Area	TCE	1,800
Improvements Common to Both Build Alternatives	MacArthur Boulevard	Demolition of Existing POC/Staging Area	TCE	13,050
Build Alternative 1	MacArthur Boulevard	New POC Ramp	Permanent Easement	1,570
Build Alternative 1	MacArthur Boulevard	Construction of New POC	TCE	8,050
Build Alternative 1	Crescent Street Cul-de-Sac	Construction of New POC	TCE	3,850
Build Alternative 2	MacArthur Boulevard	Surface Street Improvements	N/A	34,000
Build Alternative 2	Grand Avenue & Santa Clara Avenue	Surface Street Improvements	N/A	55,800

The estimated square footage for temporary acquisitions in Table 2.1-9 are subject to change as the Project progresses through the Design Phase. The square footages provided under Build Alternative 2 are not identified as requiring any right-of-way since that build alternative was developed in coordination with the City of Oakland. As part of the partnership with the City of Oakland, if Build Alternative 2 is chosen as the preferred alternative, Caltrans would construct the portions of the alternative that lie within State right-of-way while the City would construct the portions in their right-of-way.



## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternative 1**

#### *Temporary Construction Impacts*

Based on the Project's preliminary design, the build alternatives would result in the right-of-way needs listed in Table 2.1-9. The only property that would be affected is AIMS College Prep High School. However, only a TCE would be required from the school to accommodate construction staging, equipment, and vehicles for demolition of the existing POC. For Build Alternative 1's replacement POC, additional TCEs and a permanent easement would be required. These TCEs and permanent easement would be required from the City of Oakland at the Crescent Street cul-de-sac and at MacArthur Boulevard for the construction of the new POC's touchdown ramps. No relocations of persons or businesses are anticipated from construction of Build Alternative 1. Property owners whose access may be temporarily affected by project construction would be notified in advance.

#### *Permanent Impacts*

Build Alternative 1 would not result in permanent displacement or relocation of persons or businesses. However, a permanent easement from the City of Oakland would be required along the east side of MacArthur Boulevard. This easement is needed because the location of the new POC's touchdown ramp at MacArthur Boulevard would partly extend into City of Oakland right-of-way.

### **Build Alternative 2**

#### *Temporary Construction Impacts*

Based on the Project's preliminary design, the build alternatives would result in the right-of-way requirements listed in Table 2.1-9. Like with Build Alternative 1, Build Alternative 2 would also require a TCE from AIMS College Prep High School and a TCE from the City of Oakland for POC demolition activities. In terms of the surface street improvements unique to Build Alternative 2, no TCEs or permanent easements are anticipated. Caltrans plans to construct the surface street improvements located within State right-of-way and coordinate with the City of Oakland, who would construct the improvements in their right-of-way. No relocations of persons or businesses are anticipated from construction of Build Alternative 2. Property owners whose access may be temporarily affected by project construction would be notified in advance.

#### *Permanent Impacts*

Build Alternative 2 would not result in permanent displacement or relocation of persons or businesses.

## **No-Build Alternative**

### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and existing, non-ADA compliant POC would remain. There would not be construction of a new POC or any surface street improvements. Therefore, there would be no need for TCEs, permanent easements, or other right-of-way requirements. There would also be no relocations or displacement of persons or businesses.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Property acquisition is not anticipated, but if it were it would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended. No avoidance, minimization, or mitigation measures are required.

## **2.1.5 ENVIRONMENTAL JUSTICE**

### **REGULATORY SETTING**

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2022, this was \$27,750 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this project. The Department's commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix G of this document.

Title VI states that "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address "disproportionately high and adverse" effects of federal or federally funded projects on minority and low-income populations.

Minority and low-income populations are defined using the U.S. Department of Transportation Environmental Justice Order (U.S. DOT Order 5610.2[a]).

Minority population is defined as a person who is:

1. Black: a person having origins in any of the black racial groups of Africa;
2. Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
3. Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
4. American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
5. Native Hawaiian and Other Pacific Islander: people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. (U.S. DOT Order 5610.2[a])

Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2022, a household income for a family of four that fell below \$27,750 is considered low income.

#### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the Project (Caltrans 2022I).

This environmental justice analysis includes data from the U.S. Census Bureau and California Communities Environmental Health Screening Tool (CalEnviroScreen), published by the state's Office of Environmental Health Hazard Assessment (OEHHA).

Caltrans identifies a community as an environmental justice community if the minority or low-income population is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. Caltrans also defines environmental justice populations as either a group of individuals living in geographic proximity to one another or a set of individuals where either type of group experiences common conditions of environmental exposure or effect.

CalEnviroScreen identifies communities experiencing disproportionate burdens from environmental pollutants through the measurement of cumulative exposures in a geographic area. Communities ranking at or above the 75<sup>th</sup> percentile are considered disadvantaged.

The study area includes several census block groups with higher low-income and minority populations than the City of Oakland. The block groups surrounding the Webster Street UC include higher Black, Asian, mixed race, and low-income populations. The groups surrounding the Broadway-Richmond Boulevard UC include a

higher Black population. Several block groups in the Adams Point and Grand Lake neighborhoods also hold more Black, Asian, and Native American populations. The block groups surrounding the Fruitvale Avenue UC have the highest minority populations, consisting of Black, Asian and Hispanic individuals. Figures 2.1-3 and 2.1-4 as well as Tables 2.1-11 and 2.1-12 describe the minority and low-income populations within the study area, City of Oakland, Alameda County and by census tract.

The pollution burdens in the study area vary according to location. According to CalEnviroScreen, the pollution burden at the Webster Street UC is highest, at 80 percent. All other study locations register at a pollution burden below the 75<sup>th</sup> percentile.

**Table 2.1-10. CalEnviroScreen Pollution Burden at Project Locations**

<b>Project Location</b>	<b>Pollution Burden</b>
<b>Webster Street UC</b>	80%
<b>Broadway-Richmond UC</b>	49%
<b>Adams Point/Grand Lake Neighborhoods</b>	28-50%
<b>Fruitvale Avenue UC</b>	51%

Based on CalEnviroScreen data included in Table 2.1-10 and U.S. Census Bureau data in Tables 2.1-11 and 2.1-12 below, several environmental justice communities were identified in or around the project area.

As mentioned, the following Table 2.1-11 shows the percentages of minority, low-income populations, and limited-English proficiency within the study area, City of Oakland, Alameda County while Table 2.1-12 does the same but by census tract within the Project area. Within Table 2.1-12, percentages that are **bolded** indicate significantly higher minority or low-income populations compared to the City of Oakland. Census tracts considered to have environmental justice communities are highlighted in yellow. In total, there are eight census tracts that have been identified as containing environmental justice communities. The census tracts listed in Tables 2.1-12 are also depicted in the maps in Figures 2.1-3 and 2.1-4. Within those maps, the eight census tracts in the Project area containing environmental justice communities are depicted in green.

**Table 2.1-11. Percent of Minority and Low-income Populations within Alameda County, City of Oakland, and Project Study Area**

<b>Region</b>	<b>Hispanic or Latino</b>	<b>Black or African American</b>	<b>American Indian &amp; Alaska Native</b>	<b>Asian</b>	<b>Native Hawaiian &amp; Other Pacific Islander</b>	<b>Other Race</b>	<b>Two or More Races</b>	<b>Total Minority Population</b>	<b>Population Below Poverty Line</b>	<b>Limited-English Proficiency</b>
<b>Alameda County</b>	22.2%	10.1%	0.3%	31.0%	0.8%	0.4%	4.6%	69.4%	9.3%	8.2%
<b>Oakland</b>	27.0%	22.2%	0.3%	15.6%	0.5%	0.5%	5.3%	71.5%	14.6%	8.5%
<b>Study Area</b>	14.2%	21.6%	0.5%	13.2%	0.3%	0.6%	6.6%	57.0%	11.1%	2.9%
<b>Webster St/Broadway-Richmond Boulevard</b>	9.8%	25.8%	0.4%	12.6%	0.8%	0.3%	11.6%	61.3%	16.5%	3.8%
<b>Adams Point/Grand Lake</b>	12.1%	20.9%	0.5%	12.0%	0.0%	0.8%	5.5%	51.9%	9.3%	2.3%
<b>Fruitvale Avenue</b>	28.1%	19.9%	0.5%	19.2%	0.8%	0.0%	5.8%	74.3%	13.4%	5.6%



**Table 2.1-12. Percent of Minority and Low-income Populations within the Project Study Area by Census Tract**

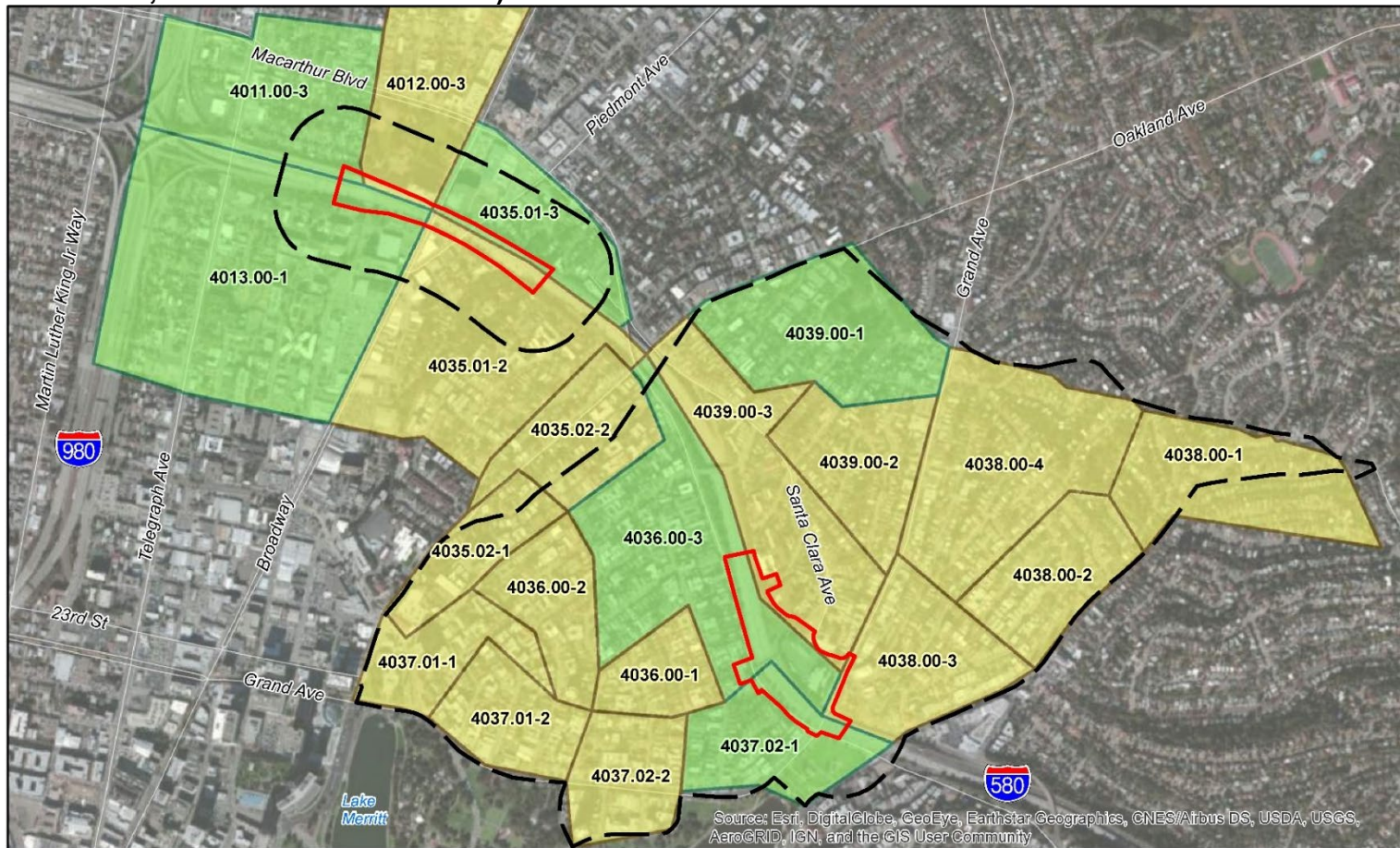
Census Tracts	Block Group	Hispanic or Latino	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Total Minority Population	Population Below Poverty Line	Limited-English Proficiency
4011.00	3	13.3%	4.2%	0.0%	<b>30.4%</b>	0.0%	1.9%	7.7%	57.4%	<b>20.9%</b>	0.0%
4012.00	3	2.6%	18.3%	0.3%	17.6%	0.0%	0.0%	3.2%	41.9%	17.7%	2.4%
4013.00	1	17.2%	<b>31.3%</b>	0.4%	8.3%	0.0%	0.0%	<b>19.3%</b>	<b>76.6%</b>	9.3%	1.8%
4035.01	2	9.8%	28.1%	0.7%	8.8%	2.3%	0.0%	15.2%	65.0%	18.4%	5.3%
4035.01	3	1.8%	<b>48.1%</b>	0.0%	0.0%	0.0%	0.0%	5.0%	54.9%	14.6%	8.3%
4035.02	1	27.2%	13.8%	0.0%	9.2%	0.0%	2.2%	3.8%	56.3%	7.1%	3.4%
4035.02	2	10.6%	23.2%	0.0%	6.1%	0.0%	0.0%	11.9%	51.8%	10.7%	1.9%
4036.00	1	28.8%	21.4%	2.9%	13.2%	0.0%	0.0%	5.8%	72.1%	3.7%	3.7%
4036.00	2	32.9%	24.3%	0.0%	9.8%	0.0%	0.0%	1.4%	68.5%	12.4%	0.0%
4036.00	3	9.0%	<b>41.6%</b>	1.7%	8.1%	0.0%	1.0%	11.5%	72.7%	15.4%	3.5%
4037.01	1	4.3%	21.8%	0.0%	16.1%	0.0%	4.8%	3.6%	50.6%	15.0%	4.7%
4037.01	2	17.4%	18.7%	0.0%	14.5%	0.0%	1.4%	7.4%	59.5%	10.8%	0.0%
4037.02	1	17.5%	<b>42.1%</b>	0.0%	12.6%	0.0%	0.0%	0.0%	72.2%	6.7%	1.7%
4037.02	2	8.5%	6.1%	0.0%	15.2%	0.0%	1.0%	4.6%	35.5%	9.8%	3.1%
4038.00	1	1.6%	19.9%	0.0%	13.8%	0.0%	0.0%	7.4%	42.8%	1.6%	2.6%
4038.00	2	3.7%	15.4%	0.8%	8.3%	0.0%	0.0%	1.4%	29.5%	2.0%	0.0%

Census Tracts	Block Group	Hispanic or Latino	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Other Race	Two or More Races	Total Minority Population	Population Below Poverty Line	Limited-English Proficiency
4038.00	3	6.7%	23.5%	0.0%	13.5%	0.7%	0.0%	1.4%	45.7%	6.1%	2.5%
4038.00	4	2.9%	10.7%	0.0%	12.9%	0.0%	0.0%	2.9%	29.3%	4.2%	0.0%
<b>4039.00</b>	1	12.5%	12.0%	0.5%	<b>27.0%</b>	0.0%	0.0%	1.9%	53.9%	8.3%	5.6%
4039.00	2	4.4%	2.7%	1.1%	3.0%	0.0%	0.0%	0.2%	11.4%	3.9%	0.0%
4039.00	3	14.9%	13.6%	0.0%	11.4%	0.0%	0.0%	8.4%	48.4%	7.9%	2.0%
4049.00	2	16.2%	21.0%	1.0%	18.6%	0.0%	0.0%	8.4%	65.2%	9.5%	6.3%
4064.00	1	24.5%	10.1%	1.7%	10.4%	0.0%	0.0%	8.0%	54.7%	14.8%	2.6%
<b>4064.00</b>	2	34.3%	17.5%	0.0%	18.9%	1.6%	0.0%	5.0%	<b>77.3%</b>	14.6%	3.2%
<b>4066.02</b>	1	28.3%	27.4%	0.6%	23.7%	0.4%	0.0%	4.2%	<b>84.5%</b>	14.5%	9.0%

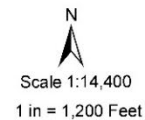
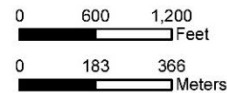
Source: U.S. Census Bureau ACS 5-Year Estimates 2020

Note: EJ Census block groups identified in yellow highlighting. **Bolded** percentages indicate significantly higher minority or low-income populations compared to the City of Oakland.

**Figure 2.1-3. Census Tract and Block Groups in the Project Study Area (Webster Street, Broadway-Richmond Boulevard, and Grand Avenue UCs)**



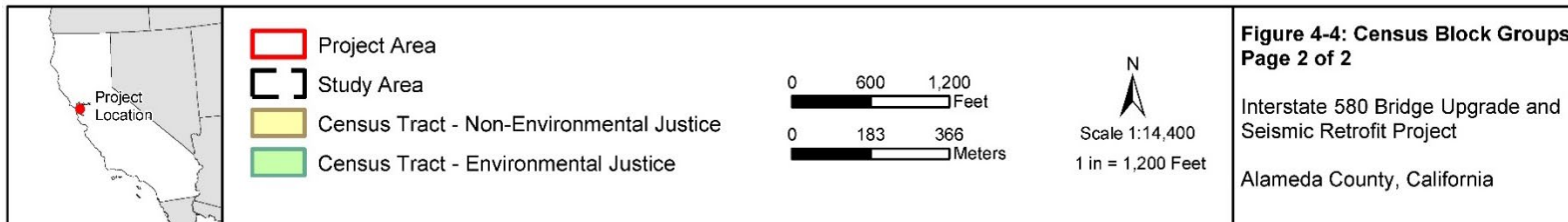
- Project Area
- Study Area
- Census Tract - Non-Environmental Justice
- Census Tract - Environmental Justice



**Figure 4-4: Census Block Groups**  
**Page 1 of 2**  
 Interstate 580 Bridge Upgrade and  
 Seismic Retrofit Project  
 Alameda County, California



**Figure 2.1-4. Census Tract and Block Groups in the Project Study Area (Fruitvale Avenue UC)**



As previously mentioned, Figures 2.1-3 and 2.1-4, are maps showing the census tracts within the Project study area. The eight census tracts colored in green within those two maps indicate the presence of environmental justice communities. As can be seen from the maps, the following census tracts with environmental justice communities are located adjacent to or within the area of proposed construction activities at the Webster Street and Broadway-Richmond Boulevard UCs: 4011.00-3, 4035.01-3, and 4013.00-1. Census tracts 4036.00-3 and 4037.02-1 contain environmental justice communities and are located adjacent to or within the footprint of proposed POC demolition, new POC construction, and surface street improvements. At the Fruitvale Avenue UC, one census tract with environmental justice communities, 4066.02-1, is located within the area of proposed work at that UC.

## **ENVIRONMENTAL CONSEQUENCES**

The FHWA requires agencies to explicitly consider human health and environmental effects related to transportation projects that may have a disproportionately high and adverse effect on environmental justice populations.

A disproportionately high and adverse effect is one that:

1. is predominately borne by a minority and/or a low-income population; or
2. will be suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority and/or non-low-income population (U.S. DOT Order 5610.2[a] § Appendix 1[g]).

## **Build Alternatives**

### *Temporary Construction Impacts*

Both build alternatives would result in temporary air, noise, visual, and traffic impacts during construction. Construction would last approximately 275 working days under Build Alternative 1 and 235 days under Alternative 2. Under both build alternatives, construction would be completed in stages to reduce noise, visual, and traffic impacts to communities. In total, six census block groups containing environmental justice populations are located within, or very close, to Project construction activities.

From the Construction Noise Analysis Report (Caltrans 2022d) completed for this Project, the noisiest construction activities would occur from demolition of the existing POC, which would impact residents in both non-identified and identified environmental justice census block groups. Caltrans would implement **Project Feature NOI-1** to minimize noise impacts so that heavy construction activities with high noise levels would take place in the daytime when feasible. Demolition of the POC would occur primarily in a census block group (4036.00-3) with significantly higher Black and Native American populations than the surrounding area. Another census block group (4037.02-1) sits just

south of the existing POC and would be very close to demolition activities. Demolition would also take place immediately next to AIMS College Prep High School, a charter school serving a predominantly minority and low-income student populations. However, demolition work right next to the school would be restricted to weekends or outside of school hours. Caltrans will also implement **AMM-NOI-1** to require noise control and monitoring at the school and at the apartment complex within census block group 4036.00-3 right next to MacArthur Boulevard touchdown ramp to ensure that construction noise does not exceed Caltrans standards.

Bridge barrier replacement and seismic retrofit work at the Webster Street and Broadway-Richmond Boulevard UCs would also occur within or very close to three census block groups containing environmental justice populations (4011.00-3, 4035.01-3, and 4013.00-1). However, this work will occur during daytime hours per **Project Feature NOI-1**. The seismic retrofit and bridge barrier replacement work at the Fruitvale Avenue UC would also result in construction noise for census block group 4066.02-1, which contains a school, the Francophone School's Satellite Campus. The seismic retrofit work at this location is anticipated to produce noise levels exceeding Caltrans standard of 86 dBA as far enough as 300 feet from construction activities. In addition to performing this work during daytime hours and applying **AMM-NOI-1**, Caltrans will also implement **AMM-NOI-2** that recommends using a quieter method of performing the needed foundation work at this location. In addition to the Project Features and AMMs already described, Caltrans would also implement **Project Features NOI-2 through NOI-6** at all Project locations to further address these temporary noise impacts during construction. More information on noise impacts can be found in Section 2.2.5, Noise.

Aside from noise, POC demolition would also result in the removal of trees and shrubs, about 48 trees total, resulting in a reduction of highway screening for highway neighbors. Under Build Alternative 1, additional trees would also need to be removed for construction of the new POC. Specifically, trees would need to be removed along MacArthur Boulevard in a census block group (4036.00-3) with identified environmental justice communities, which would further removing highway screening for these residents. Also, construction activities would result in staging areas and construction vehicles and equipment that may be visible to nearby residents, businesses, and roadway users. During nighttime work, there is a possibility that glare from construction could also impact nearby residences. Caltrans would implement **Project Features AES-1 through AES-7**, also included in Table 1.6 and Appendix B, to help avoid and minimize these visual impacts during construction. More information on visual impacts can be found in Section 2.1.8, Visual/Aesthetics.

Road closures would also be required during demolition and other proposed improvements under either build alternative. Partial closures and detours would temporarily impact traffic circulation both on the I-580 mainline and on nearby local roads including MacArthur Boulevard, Grand Avenue, Santa Clara Avenue, and on and off ramps in the area. In collaboration with the City of Oakland, AC Transit, and the



community, Caltrans would prepare a traffic management plan (TMP) under **Project Feature TRA-1** to reduce these traffic impacts. **Traffic AMMs TRA-1 through TRA-4** would also be implemented to increase coordination with AC Transit and community outreach regarding traffic impacts. More information on traffic impacts can be found in Section 2.1.7, Traffic and Transportation/Pedestrian and Bicycle Facilities.

Noise, visual, and traffic Project Features and AMMs to be used during construction are fully listed in their respective sections of this document as well as in Appendices A and B. With their implementation, construction impacts would not disproportionately affect environmental justice communities.

### *Permanent Impacts*

For trees that need to be removed for construction, **Project Features AES-2 and AES-3** call for tree and vegetation replanting to help restore highway screening. In addition, demolition of the existing POC and construction of a new POC under Build Alternative 2 would present substantial permanent visual changes, especially to nearby residents and businesses. Should Build Alternative 1 be chosen, both demolition and construction of a new POC would take place in census block groups (4036.00-3 and 4037.02-1) with identified environmental justice communities. While seismic retrofits and bridge barrier railings would result in a less substantial permanent visual change, this work also takes place in several census block groups with environmental justice communities (4011.00-3, 4013.00-1, 4035.01-3, and 4066.02-1). However, in addition to replanting efforts mentioned, Visual **AMMs AES-1 through AES-3** would be implemented that call for aesthetic treatments to be applied to upgraded undercrossing columns, upgraded bridge barriers, and the new POC under Build Alternative 1 to better match the surrounding visual environment.

Overall, the Project's build alternatives would improve safety for the traveling public and environmental justice communities present by seismically improving existing bridges/UCs and upgrading bridge barrier railings to current standards. Under Build Alternative 1, a new replacement POC would be constructed that connects the Grand Lake and Adams Point neighborhoods and that meets vertical clearance and ADA standards. Build Alternative 2 would provide surface street improvements that would improve conditions for bicyclists, pedestrians, motorists, and public transit users between the two neighborhoods.

Neither build alternative would result in permanent, disproportionate impacts to environmental justice communities.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and existing, non-ADA compliant POC would remain. There would not be construction of a new POC or

any surface street improvements. Therefore, there would be no disproportionate impact to environmental justice communities.

#### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Impacts from construction would be limited in scope and would be addressed through implementation of the visual, noise, and traffic Project Features already described and also included in Appendix B. With implementation of these Project Features and the following AMMs, which are also included in Appendix C, the project would not cause disproportionately high and adverse effects on any environmental justice populations.

**AMM-AES-1: Aesthetic Treatment of Bridge Support Columns and Walls.** The proposed steel casings at the Broadway-Richmond Boulevard I-580 Undercrossing (PM 44.51) shall be architecturally treated to blend with their surrounding environment. Additionally, the proposed infill bridge support walls at the Fruitvale Avenue Undercrossing (PM R41.3) shall have architectural treatment to blend with the visual character of their surrounding environment, using context-sensitive designs. This may include form lines and/or art designed by and representative of the local community.

**AMM-AES-2: Aesthetic Treatment of Bridge Barrier Railings.** The proposed Type 836 bridge barrier railings over Webster Street (PM 44.81), Broadway-Richmond Boulevard (PM 44.51), and Fruitvale Avenue (PM R41.3) shall be architecturally treated to minimize their visual impact on the I-580 corridor and the surrounding visual environment. The precise architectural treatment would be determined during the project's detailed design phase.

**AMM-AES-3: Aesthetic Treatment of new Proposed Pedestrian Overcrossing.** The new pedestrian overcrossing structure proposed by Build Alternative 1 shall have architectural treatment to blend with the visual character of its surrounding environment, using a context-sensitive design. This may include treatments of the structure's supports. Particular care shall be placed on the design of the new north and south landings at Crescent Street and MacArthur Boulevard, to ensure that they blend harmoniously with the visual environment of both locations.

**AMM-NOI-1: Construction Noise Control and Noise Monitoring.** Construction noise control and monitoring will be included as part of the Contract documents to minimize construction noise. Examples of noise control measures may include temporary enclosures or stockpiles of excavated material between noisy activities and noise sensitive receptors or around activities with high noise levels, using smaller equipment or equipment with lower noise levels, etc. This AMM will be implemented for POC demolition work near AIMS College Prep High School and nearby residences and for seismic retrofit at the Fruitvale Avenue UC near the Francophone School's Satellite Campus.

**AMM-NOI-2: CIDH Piles at Fruitvale Avenue UC.** Recommend the use of Cast-in-Drill-Hole (CIDH) pile driving at this location for seismic retrofit and foundation work instead of impact pile driving.

**AMM-TRA-1: Advanced Public Notification and Detours.** Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion. Detour routes will be planned in coordination with Caltrans and the City of Oakland traffic department, and they will be sent in advance to emergency service providers, transit operators, and users of I-580, I-880, I-980, State Route (SR) 13, SR 24, and SR 238.

**AMM-TRA-2: Public Notification Plan.** A public notification plan will be implemented to keep the public informed and to minimize potential disruptions to travelers and emergency service providers. Strategies, such as changeable message signs, will notify travelers of pending construction activities.

**AMM-TRA-3: AC Transit Coordination.** The project team will coordinate with AC Transit to provide advance public notification of temporary bus stop relocations.

**AMM-TRA-4: Residential Outreach.** Early communication will be implemented to inform residents in project areas of construction impacts. The project team will coordinate with the City of Oakland and property owners along Santa Clara Avenue, Crescent Street, and MacArthur Boulevard to ensure 24/7 access to residences during implementation of full road closures.

## **2.1.6 UTILITIES/EMERGENCY SERVICES**

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the Project (Caltrans 2022I).

#### **Utilities**

Power, gas, telecommunication (fiber optic), and water utilities are located within the study area. Pacific Gas & Electric (PG&E) provides gas and electricity service, and American Telephone & Telegraph Company (AT&T) provides telecommunication service. East Bay Municipal Utility District (EBMUD) manages water utilities the study area. The City of Oakland maintains sewer lines and drainage ditches.

#### **Emergency Services**

Police and traffic enforcement services in the study area are provided by the City of Oakland. The California Highway Patrol provides additional support for traffic enforcement in the city. Fire protection and emergency medical services in the study area are provided by the City of Oakland Fire Department, which operates 29 stations. Fire Station 10, located at 172 Santa Clara Avenue, south of Oakland Avenue, would

serve the Grand Lake and Adams Point neighborhood study areas. Fire Station 15, at 455 27<sup>th</sup> Street, south of Broadway, would serve the Webster Street and Broadway-Richmond Boulevard UC study areas. Fire Station 13, at 1225 Derby Avenue off E 13<sup>th</sup> Street would serve the Fruitvale Avenue UC study area.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

Construction of both build alternatives would require relocation of a PG&E-owned electrical pull box. This utility is located within State right-of-way along Piedmont Avenue underneath I-580, close to one of bridge columns of the Broadway-Richmond Undercrossing. Due to the seismic retrofits proposed to that UC's support columns, this electrical pull box would have to be relocated. Impacts to communication and water utilities are not anticipated. Final verifications of utilities would be performed during the project's Design phase, which may reveal additional utility relocations needed. For utilities that require relocation, it is anticipated that these utilities would be relocated prior to construction. Implementation of **Project Features UTIL-1**, trash management, **and UTIL-2**, notifying utilities of construction schedule, would further reduce any impacts to utilities during construction.

During construction of both build alternatives, temporary lane closures on I-580 and local streets would be required. These closures could result in short-term, temporary impacts to emergency service providers. These impacts would be minimized by a Traffic Management Plan (TMP) as outlined in **Project Feature TRA-1** that would be developed in consultation with emergency service providers and the City of Oakland.

#### *Permanent Impacts*

Both build alternatives would not increase the demand for additional utility services in the area and would not permanently impact emergency services. Therefore, there would be no permanent impacts to utilities or emergency services.

### **No-Build Alternative**

Under the No-Build Alternative, the existing bridge barrier railings and POC would remain. There would not be construction of a new POC or any surface street improvements. Therefore, there would be no impact to utilities or emergency services.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

No utility or emergency service-related avoidance, minimization, and/or mitigation measures would be required for the proposed Project. The Project Features that would be implemented are included in Table 1.6 in Chapter 1 and in Appendix B.

## **2.1.7 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES**

### **REGULATORY SETTING**

Caltrans, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

### **AFFECTED ENVIRONMENT**

Information in this section is based on the CIA prepared for the Project (Caltrans 2022I).

#### **Access, Circulation, and Parking**

The roadway system in the Project study area includes the I-580 mainline and a series of local and arterial roadways. I-580 is a major commuter highway classified as a Priority Interregional Highway and Freight Route that begins at I-5 in San Joaquin County and ends at US 101 in Marin County. The portions of I-580 within the project limits are primarily an eight-lane divided freeway. The corridor serves local traffic between Hayward and Emeryville, links commuters to economic and employment centers, and supports interregional travel through direct access to I-80 and I-880 (via I-238). Cities located adjacent to or within I-580's path of travel include Richmond, El Cerrito, Albany, Emeryville, Oakland, San Leandro, Ashland, and Castro Valley.

At the Webster Street UC location, the roadway system includes the I-580 mainline over Webster Street, the EB I-580 Webster Street off-ramp, and local streets that intersect with Webster Street. At the Broadway-Richmond Boulevard UC, the roadway system includes the I-580 mainline over Richmond Boulevard, Piedmont Avenue, and Broadway Avenue. At the Fruitvale Avenue UC, the roadway system includes the I-580 mainline over Fruitvale Avenue, which routes traffic from north to south, and several local streets that run perpendicular to Fruitvale Avenue.



In the portions of the project where POC demolition, replacement POC construction, and surface street improvements would take place, the roadway system is dominated by I-580, local roads like Santa Clara Avenue and Van Buren Avenue, arterial roads like Grand Avenue and MacArthur Boulevard. Santa Clara Avenue conveys traffic from the eastern touchdown ramp of the existing POC north through the Grand Lake neighborhood. Grand Avenue conveys traffic east-west from its intersection with I-580 and connects the Grand Lake and Adams Point neighborhoods. MacArthur Boulevard conveys traffic north-south, and in the Adams Point neighborhood runs along I-580 and crosses under the existing POC. In the Grand Lake neighborhood, MacArthur Boulevard travels on the east side of I-580 and crosses underneath I-580 at Oakland Avenue. Van Buren Avenue conveys traffic east-west, starting at its intersection with MacArthur Boulevard east of I-580 close to the existing POC's touchdown ramp. Van Buren Avenue serves traffic within the Adams Point neighborhood only.

Parking facilities within the Project study area include street parking along local and arterial roads and three paved parking lots. These paved parking lots are the Grand Lake Park and Ride, Fruitvale Park and Ride, and a parking lot between Broadway Avenue and Piedmont Avenue. The Grand Lake Park and Ride is located at the Grand Avenue UC at 533 Lake Park Avenue, within the Grand Lake neighborhood. It includes 151 parking spaces with 58 long-term parking spots. The Fruitvale Park and Ride, at 3350 Flagg Avenue at the Fruitvale Avenue UC, includes 178 parking spots. The Broadway-Piedmont parking lot, at the 3300 block of Broadway, has an unknown number of parking spots and is primarily utilized by nearby car dealerships.

## **Public Transit**

Public transportation within the study area includes Alameda County Transit (AC Transit) bus service along arterial roads. AC Transit services a series of lines at each project location. Along Broadway Avenue, AC Transit operates lines 51A in the day and 851 in the night. Both of these lines run north-south serving the cities of Berkeley and Oakland. Along Fruitvale Avenue, AC Transit operates lines 20, 21, and 39 in the northbound and southbound directions. Lines 20 and 21 serve east Oakland and the City of Alameda. Line 39 serves east Oakland from San Leandro Street to Skyline Boulevard. Along Grand Avenue, AC Transit line 12 runs through both the Adams Point and Grand Lake neighborhoods and serves the cities of Berkeley, Oakland, and Piedmont. Line 57 runs south along MacArthur Boulevard and north along Santa Clara Avenue, serving the cities of Emeryville and Oakland. Line NX also runs along MacArthur Boulevard serving Oakland and San Francisco. Lines 653, 657, and 658 also run along MacArthur Boulevard and are part of AC Transit's Service to Schools line type serving middle and high schools in Oakland but are also open to the public. All buses run approximately every 15 to 30 minutes, Monday through Sunday.

## **Bicycle/Pedestrian Access**

The existing POC spans I-580 connecting the Adams Point and Grand Lake neighborhoods. The current path of travel of the POC between its touchdown ramps at MacArthur Boulevard and Santa Clara Avenue is about 970 feet long. The path of travel between the touchdown ramps using local roads is about 1,750 feet and includes three unsignalized crossings and 2 signalized crossings. Caltrans Office of Traffic Operations conducted pedestrian and bicycle counts for the existing POC that were taken between October 12, 2021 and October 18, 2021. While this was not a thorough evaluation of the active transportation needs or transit traffic patterns in the area, the results showed a weekday average of about 16 pedestrian trips and 2 bicycle trips. The weekend average was about 28 pedestrian trips and 1 bicycle trip.

Bicycle facilities within the study area include Class 2 and 3 bike lanes. Class 2 bike lanes are roads with delineated shoulders dedicated for bicyclists. Class 3 bike lanes are roads marked with “sharrows” that indicate shared use between motor vehicles and bicyclists. Webster Street features a Class 3 bike lane and is considered a neighborhood bike route, linking bicyclists from 51<sup>st</sup> Street in north Oakland to Broadway Avenue. Broadway Avenue and Piedmont Avenue both support Class 2 bike lanes. Richmond Boulevard does not include a designated bike lane. The study area at Fruitvale Avenue includes one Class 2 bike lane along the Fruitvale Avenue UC. There are no other bicycle facilities present along adjacent local streets in this area. On Grand Avenue, bicycle facilities include a buffered Class 2 bike lane. Additionally, Class 3 bicycle lanes occur within the Grand Lake neighborhood along Santa Clara Avenue between Grand Avenue and MacArthur Boulevard and along MacArthur Boulevard between Grand Avenue and Adams Street.

In general, the Project study area is surrounded by pedestrian facilities. The Webster Street, Broadway-Richmond Boulevard, Grand Avenue, and Fruitvale Avenue Ucs all feature sidewalks. The majority of local streets within all the neighborhoods featured in the study area also have sidewalks travelling north-south or east-west. However, some areas of the study area may have sidewalk gaps, or areas that lack sidewalk continuity. Locations identified to have with sidewalk gaps include near the existing POC’s touchdown ramp at Santa Clara Avenue and near the intersection of Grand Avenue and Santa Clara Avenue.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

In both build alternatives, the bridge barrier railing replacement and seismic retrofit work would require partial road closures at Webster Street, Broadway Avenue, Richmond Boulevard, and Fruitvale Avenue. Along the I-580 mainline, Temporary barriers would be placed to close both the shoulder and rightmost general-purpose lane during the

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*

bridge barrier replacement work. Some on and off ramps located near these UCs may also need to be temporarily closed. However, most would likely remain open with temporarily restriping to shift I-580 mainline traffic to the left to avoid closed shoulders and rightmost travel lanes. Demolition of the portions of the existing POC above the I-580 mainline would require full nighttime closures of the I-580 mainline in both the EB and WB directions. Temporary and partial road closures of the surrounding roadway network, including Santa Clara Avenue and MacArthur Boulevard, would be required for demolition activities that are closer to nearby residential apartments. Any closures of roadways and I-580 would be addressed through implementation of Project Feature TRA-1, or development of a Traffic Management Plan (TMP) for the Project. Traffic impacts would be reduced through the implementation of traffic controls and through providing detours and alternate access routes. Road closures for POC demolition may also impact access for residents along Santa Clara Avenue and MacArthur Boulevard. Caltrans would coordinate with the City of Oakland and property owners to ensure continued access during construction.

During construction, the existing paved parking lots located underneath the UCs would be used for construction staging. Street parking along Santa Clara Avenue and MacArthur Boulevard would also be utilized for construction staging during POC demolition work. These impacts to parking would be temporary and would end after construction.

Regarding public transportation, construction is expected to temporarily impact AC Transit bus routes. Temporary bus stop relocations would be needed during road closures for bridge barrier replacement work, seismic retrofit work, and demolition of the existing POC.

### *Permanent Impacts*

Once the improvements common to both build alternatives are constructed, they would result in safety improvements for pedestrians and bicyclists traveling on sidewalks and roads at the Webster Street, Broadway-Richmond boulevard, and Fruitvale UCs. Both build alternatives would not adversely impact AC Transit bus routes in the area.

## **Build Alternative 1**

### *Temporary Construction Impacts*

During construction, Build Alternative 1 would temporarily impact pedestrian, bicycle, and vehicle access around the project area.

Construction of Build Alternative 1 would require temporary partial closures of Crescent Street and of MacArthur Boulevard for the new replacement POC. These closures may also impact access for residents of the apartment complexes along these roads. However, residential access would be maintained, and these closures would be

temporary and its effects minimized through implementation of the TMP as outlined in Project Feature TRA-1 and through coordination with the community.

On street parking along both MacArthur Boulevard and the Crescent Street cul-de-sac near the proposed new POC's touchdown ramps would also be temporarily used for construction staging for the new replacement POC. These impacts to parking would be temporary and would end after construction.

Construction of the new POC would also require road closures that would have impacts to AC Transit routes. Caltrans would develop a TMP in coordination with AC Transit to address impacts to bus routes and develop appropriate detours. After construction, standard AC Transit operation times would resume, and all effects would be temporary and minimized through the TMP.

### *Permanent Impacts*

Once built, the new POC under Build Alternative 1 would provide an improved, ADA compliant pedestrian access between the Adams Point and Grand Lake neighborhoods with a path of travel that would be approximately 361 feet long. The new POC may result in increased foot traffic around Temple Beth Abraham located on MacArthur Boulevard near the proposed new touchdown ramp. Near the MacArthur Boulevard touchdown ramp, Build Alternative 1 also proposes a new pedestrian crosswalk with ADA curb ramps and either a Rapid Rectangular Flashing Beacon (RRFB) or a Pedestrian Hybrid Beacon (PHB) with advanced warning signs. At the Crescent Street touchdown ramp, the new POC may also result in more foot traffic through the Crescent Street cul-de-sac. However, Crescent Street features steep slopes, so access to the new POC may be inconvenient for those with walking difficulties.

Build Alternative 1 would also result in the permanent loss of about 5-10 on-street parking spaces, near the location of the new touchdown ramp and crosswalk along MacArthur Boulevard. A portion of the sidewalk that would be located underneath the new POC's touchdown ramp may need to be widened in order to provide adequate clearance for pedestrians walking along MacArthur Boulevard. The exact number of on street parking spaces that would be permanently lost will be determined in the Design Phase of the Project. Reduction of parking spaces would be an inconvenience to residents and visitors in the area.

Build Alternative 1 would not impact AC Transit bus routes in the area.

## **Build Alternative 2**

### *Temporary Construction Impacts*

Build Alternative 2 would also temporarily impact pedestrian, bicycle, and vehicle access around the project area.

Construction of Build Alternative 2 would require additional temporary closures to Grand Avenue and surrounding local streets like MacArthur Boulevard and Santa Clara Avenue. These closures would be temporary and would be discussed and its effects minimized through implementation **Project Feature TRA-1**, a TMP, with traffic controls, detours, and alternate access routes and through coordination with the community, the City of Oakland, and AC Transit.

For the surface street improvements under Build Alternative 2, the parking lot at the Grand Avenue UC would be primarily used for construction staging. Temporary use of on-street parking spaces for construction of the surface street improvements under Build Alternative 2 are not anticipated. Impacts to the parking lot would be temporary and would end after construction.

Regarding public transportation, construction is expected to temporarily impact AC Transit bus routes. Temporary bus stop relocations would be needed during road closures for surface street improvements along Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue. Caltrans would develop a TMP in coordination with AC Transit and the City of Oakland to address impacts to bus routes and develop appropriate detours. After construction, standard AC Transit operation times would resume, and all effects would be temporary and minimized through the TMP.

### *Permanent Impacts*

After construction, Build Alternative 2 would result in safety improvements for pedestrians, bicyclists, and motorists along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue through the introduction of traffic calming features, protected bike lanes, improved crosswalk striping, and other minor pedestrian and bicycle improvements. The extent of surface street improvements covers the path of travel between the existing POC's touchdown ramps that would be demolished. This build alternative's path of travel is about 1,750 feet long. The proposed protected bike lane along southbound Grand Avenue, directly in front of the AIMS College Prep High School, could impact the school's current drop-off and pick-up zones. Caltrans would coordinate closely with the school and the City of Oakland to design surface street improvements that would minimize those impacts.

Build Alternative 2 would result in the permanent loss of about 5-10 on-street parking spaces, notably due to the conversion of the slip lane from Grand Avenue to Santa Clara Avenue into a pedestrian plaza. There would be no permanent loss of parking at the parking lot at the Grand Avenue UC. The exact number of on street parking spaces that would be permanently lost will be determined in the Design Phase of the Project. Reduction of parking spaces would be an inconvenience to residents and visitors in the area.

In addition, Build Alternative 2 would benefit AC Transit bus routes operations in the area, since surface street improvements include the installation of several bus boarding islands with ADA ramps. This would help improve safety and facilitate bus boardings for

AC Transit riders. Caltrans would continue to coordinate with AC Transit to ensure that the improvements benefit service lines, which may include relocation of some near-side bus stops to the far-side (after the traffic signals) of intersections. More detailed information on these improvements will be provided in the Design Phase and after further coordination with AC Transit.

#### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

The following traffic AMMs, also listed in Appendix C, would be implemented during construction:

**AMM-TRA-1: Advanced Public Notification and Detours.** Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion. Detour routes will be planned in coordination with Caltrans and the City of Oakland traffic department, and they will be sent in advance to emergency service providers, transit operators, and users of I-580, I-880, I-980, State Route (SR) 13, SR 24, and SR 238.

**AMM-TRA-2: Public Notification Plan.** A public notification plan will be implemented to keep the public informed and to minimize potential disruptions to travelers and emergency service providers. Strategies, such as changeable message signs, will notify travelers of pending construction activities.

**AMM-TRA-3: AC Transit Coordination.** The project team will coordinate with AC Transit to provide advance public notification of temporary bus stop relocations.

**AMM-TRA-4: Residential Outreach.** Early communication will be implemented to inform residents in project areas of construction impacts. The project team will coordinate with the City of Oakland and property owners along Santa Clara Avenue, Crescent Street, and MacArthur Boulevard to ensure 24/7 access to residences during implementation of full road closures.



## 2.1.8 VISUAL/AESTHETICS

### REGULATORY SETTING

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

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (CA Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

### AFFECTED ENVIRONMENT

Information in this section is based on the Visual Impact Assessment (VIA) (Caltrans 2022a). The purpose of the VIA is to document potential visual impacts caused by the project and to propose measures to lessen any detrimental impacts that are identified. Visual impacts are demonstrated by identifying visual resources in the project area, measuring the amount of change that would occur as a result of the project, and predicting how the affected public would respond to or perceive those changes. This VIA follows the guidance outlined in the publication *Visual Impact Assessment for Highway Projects* (FHWA 2015).

### Visual Setting and Resources

The Project is located along I-580 at various locations between postmiles (PM) R41.42 and 44.51 in the City of Oakland, Alameda County. The landscape in this area is characterized by commercial and residential properties within the foreground and the Oakland Hills in the background. The land use within the corridor is primarily urban commercial but also includes areas of urban residential.

I-580 is known locally as the MacArthur Freeway and is an Officially Designated State Scenic Highway for the entirety of the Project limits. Due to its Scenic Highway status, the I-580 highway scenic corridor segment within the Project limits is considered a scenic resource. Scenic corridors consist of land that is visible from, adjacent to, and outside the highway right-of-way and consist of land that is primarily of scenic and

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*

natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries.

Visual resources are defined by assessing visual character and visual quality along a project corridor. A few of the visual resources present in the Project limits that contribute to the visual quality of I-580 and the unique visual character of the surrounding area include Saint Jarlath Church on Pleasant Street, the Saw Mill Building on Broadway Avenue, The Grand Lake Theatre on Grand Avenue, Temple Beth Abraham on MacArthur Boulevard, and the Oakland Hills.

## **Viewers and Viewer Response**

The population affected by a Project is composed of viewers, or people whose views of the landscape may be altered by the proposed Project – either because the landscape itself has changed or their perception of the landscape has changed. For highway projects, there are two major types of viewer groups: highway neighbors and highway users. Viewer exposure is a measure of the viewer’s ability to see a particular object. The three attributes of viewer exposure are location, quantity, and duration. *Location* relates to the position of the viewer in relationship to the object being viewed, *quantity* refers to how many people see the object, and *duration* refers to how long a viewer is able to keep an object in view.

### *Highway Neighbors (Views to the Road)*

Highway neighbors are those who have views to the road. For this Project, the following highway neighbors were considered: property owners and tenants, active transportation user on city streets in the area (pedestrians, bicyclists, etc.), and motorized transportation users on city streets (drivers, motorized vehicle passengers, motorcyclists, and transit users). Transit users in this viewer group are riders of Alameda County Transit (AC Transit) routes 51A, 851, 805, 12, 57, 29, 96, 20, 21, and 39. Highway neighbors would likely have high exposure to the Project changes due to their locations in relation to the changes, the quantity of highway neighbors seeing the changes, and the duration that the changes will be in view. Duration would be highest for property owners or tenants in the Project area, as those neighbors live and work directly adjacent to the proposed improvements and are anticipated to be familiar with the existing visual environment.

### *Highway Users (Views from the Road)*

Highway users are people who have views from the road. For this Project, the highway users considered were motorized transportation users that include drivers, motorized vehicle passengers, and motorcyclists. AC Transit does not have any routes on I-580 that would intersect with the proposed changes. Therefore, transit users were not considered to be part of this group. Although there are a higher quantity of highway users on I-580 compared to highway neighbors who would be exposed to the proposed improvements, their exposure would be limited by duration. Highway users are

generally travelling at higher speeds and pass through the project area. However, pedestrians and bicyclists would likely have more time to view the proposed improvements as they pass through the area. Therefore, viewer exposure for highway users is anticipated to be moderate.

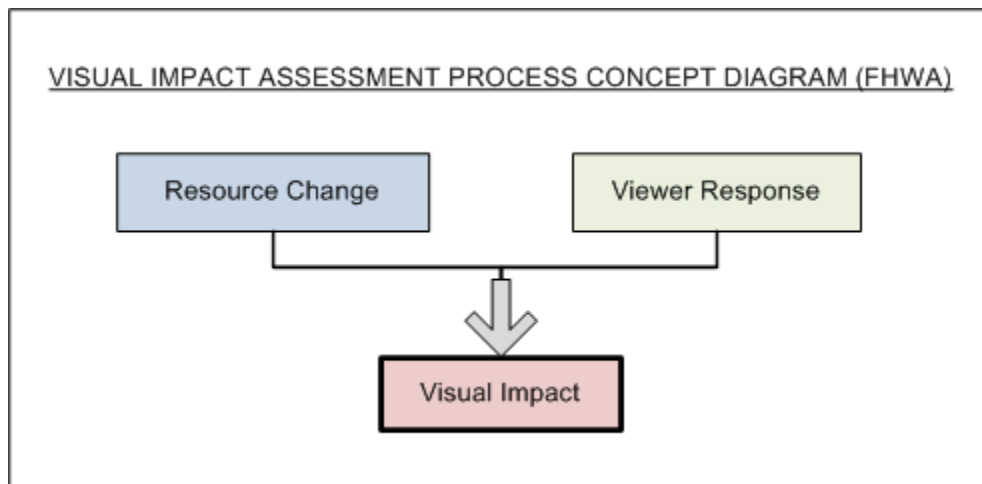
## ENVIRONMENTAL CONSEQUENCES

The following section describes the visual impacts from both build alternatives, first starting with a generalized description about how resource change and visual impacts are determined in the visual impact assessment process. Further information is provided on the visual assessment units (VAUs) and key views (KVs) that were chosen for the visual assessment.

### Assessing Resource Change and Visual Impacts

Resource change is assessed by evaluating the visual character and the visual quality of the visual resources within the Project corridor before and after construction of the Project. Visual impacts are determined by the combination of resource change and viewer response. These impacts can be beneficial or detrimental. A generalized visual impact assessment process is illustrated in the following Figure 2.1-5.

**Figure 2.1-5. Visual Impact Assessment Process Concept Diagram**



The following Figure 2.1-6 provides a reference for determining levels of visual impact by combining both resource change and viewer response.

**Figure 2.1-6. Visual Impact Ratings Using Viewer Response and Resource Change**

		Viewer Response				
		Low (L)	Moderate-Low (ML)	Moderate (M)	Moderate-High (MH)	High (H)
Resource Change	Low (L)	L	ML	ML	M	M
	Moderate-Low (ML)	ML	ML	M	M	MH
	Moderate (M)	ML	M	M	MH	MH
	Moderate-High (MH)	M	M	MH	MH	H
	High (H)	M	MH	MH	H	H

**Visual Assessment Units (VAUs)**

The Project corridor was divided into a series of “outdoor rooms,” or separate visual assessment units (VAUs). Each VAU has its own visual character and quality. Three VAUs were identified:

- VAU 1: I-580/Richmond Boulevard/Broadway Avenue – This VAU is defined by a section of the urban environmental in the foreground and the natural environmental in the background. Views from VAU 1 include nearby mid-rise buildings such as the Kaiser Hospital, downtown Oakland to the southwest, and Oakland Hills in the distant background.
- VAU 2: I-580/Santa Clara Avenue/MacArthur Boulevard/Grand Avenue – This VAU is defined by open views where both urban and natural environments blend together. Distinctive features include Temple Beth Abraham, the Grand Lake Theatre sign, and Lake Merritt and all are visible in the viewshed. VAU 2 also has relatively direct lines of sight of the Oakland Hills in the background.
- VAU 3: I-580/Fruitvale Avenue – The VAU is defined by the surrounding urban environment, but also includes views of natural features in the background. Joaquin Miller Park and Leona Heights Park are relatively visible.

Figures 2.1-8 through 2.1-12 are characteristic photos of all three VAUs described.

**Key Views**

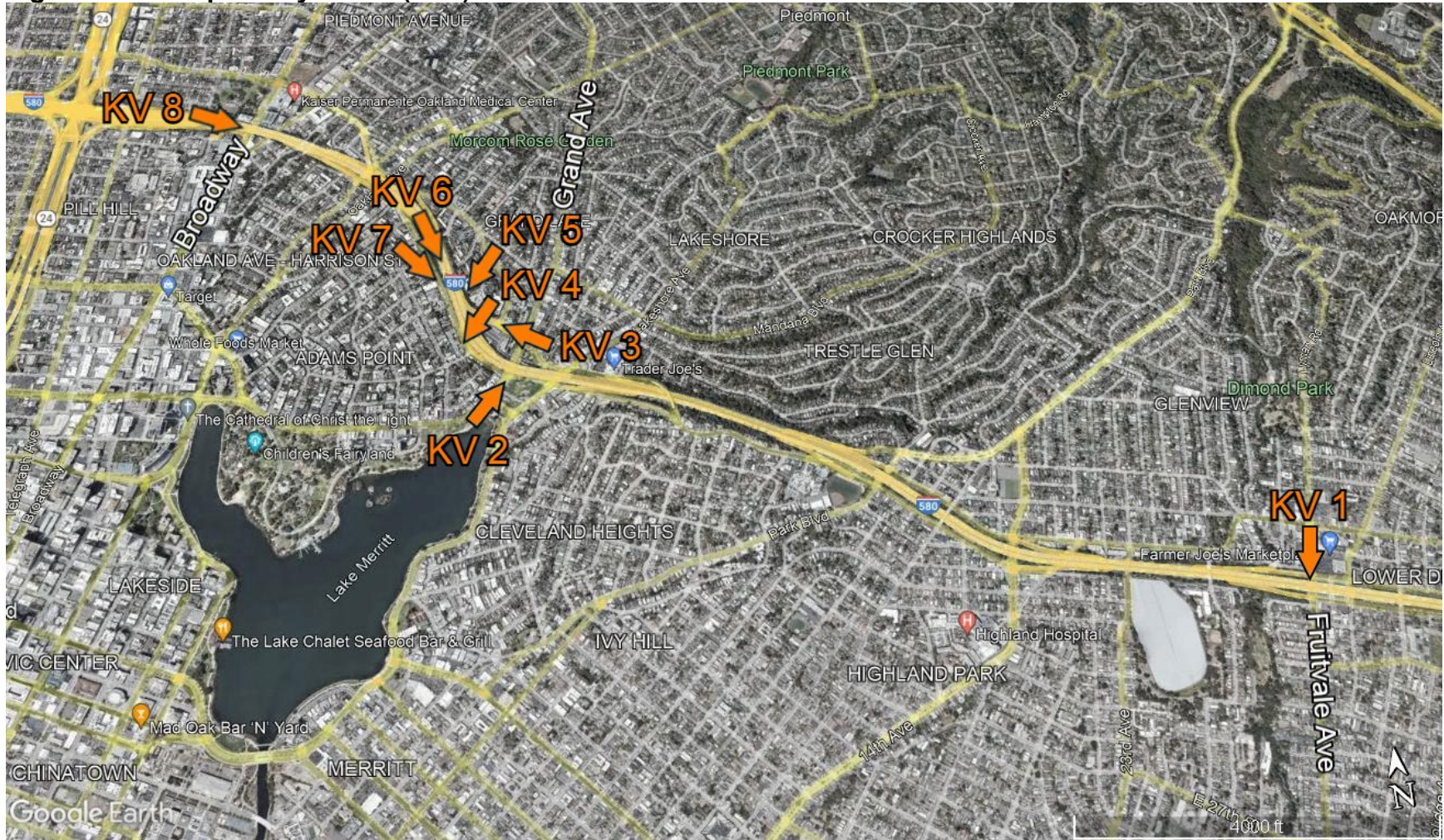
Eight key views (KVs) were established within the Project area and visual simulations were created at these locations to show the proposed changes due to the build alternatives. The KVs selected for the Project are:

- KV 1 – The intersection of Montana Street and Fruitvale Avenue looking south towards I-580. This view was selected to show the visual changes of the proposed bridge railing replacement and bridge support retrofit at the Fruitvale Avenue UC.
- KV 2 – Grand Avenue median island looking northeast towards I-580. This view was selected to show the complete street features under Build Alternative 2.
- KV 3 – Santa Clara Avenue looking northwest towards the existing POC and touchdown ramp. This view was selected to show removal of the POC and the potential landscaping that could replace it.
- KV 4 – MacArthur Boulevard looking southwest towards the existing POC and touchdown ramp. As with Key View 3, this view was selected to show removal of the POC and the potential landscaping that could replace it.
- KV 5 – Crescent Street cul-de-sac looking west towards the new replacement POC's touchdown ramp under Build Alternative 1. This view was selected to show the new POC touchdown ramp.
- KV 6 – The I-580 mainline traveling in the EB direction looking towards the replacement POC under Build Alternative 1. This view was selected to show the appearance of the new POC as viewed from the freeway.
- KV 7 – MacArthur Boulevard looking southeast towards the replacement POC's touchdown ramp under Build Alternative 1. As with Key View 5, this view was selected to show the location and appearance of the new touchdown ramp.
- KV 8 – The I-580 mainline traveling in the EB direction. This view was selected to show the appearance of the proposed bridge railing replacement by Broadway Avenue as viewed from the freeway.

In general, KV 1, KV 3, KV 4, and KV 8 are associated with the improvements common to both build alternatives. Build Alternative 1 is associated with KV-5, KV-6, and KV-7 while Build Alternative 2 is associated with KV 2 and KV-6. A map of the locations of these KVs chosen for this assessment are shown below in Figure 2.1-7.



**Figure 2.1-7. Map of Key Views (KVs)**





**Figure 2.1-8. Photo of VAU 1 from EB I-580**



**Figure 2.1-9. Photo of VAU 1 from Broadway Avenue**



**Figure 2.1-10. Photo of VAU 2 from EB I-580**



**Figure 2.1-11. Photo of VAU 2 from Grand Avenue**



**Figure 2.1-12. Photo of VAU 3 from Fruitvale Avenue**





## Improvements Common to Both Build Alternatives

### *Temporary Construction Impacts*

The improvements common to both build alternatives would result in temporary visual impacts within the Project corridor for the duration of construction and would be visible to both highway users and highway neighbors. Highway neighbors in particular would be affected by temporary construction visual impacts.

The proposed bridge barrier replacement work at the Webster Street, Broadway-Richmond Boulevard, and Fruitvale Avenue UCs would include removal of existing vegetation or tree trimmings in areas adjacent UCs, particularly in the embankment areas between I-580 and on and off ramps. These areas often contain vegetation that has grown very close to the existing bridge barriers and would need to be removal/trimming. Vegetation and tree removal would also be required in the areas around the touchdown ramps of the existing POC during its demolition. Caltrans would implement **Project Features AES-1 through AES-3** to minimize vegetation removal to the maximum extent feasible and provide replacement planting and revegetation of areas disturbed by construction. In addition, staging of construction equipment and vehicles and new traffic caused by construction vehicles could create temporary visual impacts on highway users and highway neighbors. However, implementation of **Project Features AES-4 through AES-6** would help minimize the adverse visual impacts from staging through appropriate erosion control measures and covering or hiding unsightly material where possible. If nightwork is required for portions of POC demolition, Caltrans would implement **Project Feature AES-7** to utilize directional lighting, shielding, and other measures to avoid unwanted lighting of nearby residences.

These temporary construction impacts would particularly affect highway neighbors as they live, walk, bike, and drive regularly in the project area and so they would have a high degree of viewer exposure and sensitivity to these changes. However, the Project Features listed above would minimize the impacts to both highway neighbors and users.

### *Permanent Impacts*

As can be seen in Table 2.1-13 below, the resource change, viewer response, and visual impacts are listed for the key viewpoints that correspond to the improvements common to both alternatives.

Demolition of the existing POC spanning I-580 as proposed by both build alternatives would alter the form, lines, and colors of Santa Clara Avenue and MacArthur Boulevard (KV-3 and KV-4) and result in an overall positive visual impact. The visual quality at both of these key viewpoints would be greatly increased by the absence of the POC, which is currently the most visually dominant feature from these viewpoints. In addition to the implementation of **Project Features AES-2 and AES-3**, the touchdown ramp areas of the existing POC would also be restored with replacement landscaping after demolition. The bridge barrier replacement and seismic retrofit work are not anticipated

to result in substantial visual impacts. As can be seen in Table 2.1-13 below, KV-1 and KV-8 corresponding to the bridge barrier replacement and seismic retrofit work. This proposed work is expected to result in moderate-low to low visual impacts depending on the UC. To reduce the effects of these improvements, the project would implement **AMMs AES-1 and AES-2**, which would apply aesthetic treatments on the replacement bridge barriers and newly retrofitted UC support columns to better complement the surrounding visual environment.

**Table 2.1-13. Visual Impact Determinations of KV 1, 3, 4, and 8 (Improvements Common to Both Build Alternatives)**

Key View (KV)	Proposed Work	Resource Change	Viewer Response	Visual Impact
1	Bridge Barrier Replacement and Seismic Retrofit at Fruitvale Avenue UC	Low	Moderate	Moderate-Low
3	POC Demolition at Santa Clara Avenue	High	Moderate	Moderate-High
4	POC Demolition at MacArthur Boulevard	High	Moderate	Moderate-High
8	Bride Barrier Replacement at Broadway-Richmond Boulevard UC	Low	Low	Low

Both the existing conditions and simulations of the proposed changes at each of the key viewpoints listed in the table above are included to show a visual representation of the improvements. Further discussion of the visual setting and changes at each of these key viewpoints are also provided that show how the visual impact determinations in Table 2.1-13 were made.

### **KV-1**

Figure 2.1-13 presents the existing view from KV-1 on Fruitvale Avenue looking south towards I-580 and the Fruitvale Avenue UC location. KV-1 is characterized by the dominant form, distinct horizontal and vertical lines, and gray hue of I-580. Saint Jarlath Church, a scenic resource, is partially visible in the background. The existing visual quality of KV-1 is moderate, as the prominent features in the foreground do not necessarily contribute to vividness or unity. These features are not distinctive,

contracting, diverse, or harmonious, they are typical within the I-580 corridor. A high degree of intactness offsets the otherwise low visual quality of KV-1.

The replacement of the existing nonstandard bridge barrier railings and construction of infill walls would take place at this location. The new concrete infill walls would increase the dominance of I-580 and further screen views of the church and other adjacent buildings. The improvements would also reduce the presence of vertical lines in this view, as the existing columns and bridge barriers would be replaced. This could also lead to a change in color through the addition of new reflective surfaces that could be a source of glare. While these changes would be noticeable, they would not substantially affect the visual quality of KV-1. The proposed changes would keep the same degree of intactness, therefore, overall resource change would be low.

KV-1 would be viewed by highway neighbors such as pedestrians, bicyclists, and drivers. This viewer group would have high exposure and sensitivity due to their proximity to the improvements and a high degree of awareness. The group would be traveling through this area at low enough speeds and very close to the proposed improvements. Based on this, viewer response is predicted to be moderate.

Based on the assessed level of resource change and predicted viewer response, the proposed improvements to KV-1 are anticipated to result in a moderate-low visual impact. While viewer exposure and sensitivity would be high at this view, the improvements would not substantially affect visual character or quality.



**Figure 2.1-13. Key View (KV) 1: Existing Conditions**



**Figure 2.1-14. Key View (KV) 1: Proposed Conditions**



**KV-3**

Figure 2.1-15 presents the view looking northwest towards the existing POC touchdown ramps at Santa Clara Avenue. This view is dominated by the existing POC structure and touchdown ramp. The colors consist of greenery of landscaped vegetation as well as gray hues associated with the POC, Santa Clara Avenue, and the I-580 on and off-ramp. A sprawling mural is painted onto the embankment of the WB I-580 Grand Avenue off-ramp, shown in the left side of the figure. The existing visual quality of KV-3 is moderate. While the POC and typical visual features in the I-580 corridor, they do not form a harmonious visual pattern with the surrounding features.

Both build alternatives propose to demolish the existing POC structure and restore the landing area at Santa Clara Avenue with landscape, hardscape, or a combination of both. The visual character of KV-3 would be substantially altered, primarily due to the removal of the existing POC as shown in Figure 2.1-16. Demolition of the POC would open up views of I-580 and would increase unity of the visual environment by leaving behind a more coherent, harmonious visual pattern and increase visual quality. The proposed improvements here would also increase intactness, as the visual integrity of the POC has degraded over time. Therefore, resource change would be high.

KV-3 would be accessible to both highway neighbors and highway users. Highway neighbors, especially the residential properties adjacent to the POC, would have high viewer exposure and sensitivity to the improvements. Those viewers are also anticipated to have a high degree of familiarity with the existing visual environment. Based on the proposed changes at this location and high viewer exposure and sensitivity, viewer response is predicted to be moderate.

The removal of the existing POC would result in a notable change to KV-3. Based on the assessed resource change and the predicted viewer response, the project is anticipated to have a moderate-high visual impact on KV-3. However, the changes would be positive, as visual quality would be greatly increased by the removal of the existing POC.

**Figure 2.1-15. Key View (KV) 3: Existing Conditions**





**Figure 2.1-16. Key View (KV) 3: Proposed Improvements**



#### **KV-4**

Figure 2.1-17 presents this view from MacArthur Boulevard looking southwest towards the existing POC's touchdown ramp on MacArthur Boulevard. The existing form of KV-4 is occupied by both the POC and its touchdown ramp as well as adjacent apartment buildings. The colors of this view consist of gray and green hues and variety of reflective surfaces. The existing visual quality of KV-4 is moderate. Similar to KV-3, the existing POC slightly detracts from visual quality as it does not blend with adjacent visual features in this view and has lost some visual integrity over time.

Both build alternatives propose to demolish the existing POC structure and restore the south landing at MacArthur Boulevard with landscape, hardscape, or a combination of both. Demolition of the existing POC and revegetation efforts would substantially alter the visual character of KV-4. The POC would no longer dominate the form of the view, and focus would shift to the surrounding apartment buildings and landscaped vegetation. This would open up views for residents of the surrounding apartment buildings currently screened by the POC. The visual quality of KV-4 would greatly increase from these improvements, as unity and intactness would be increased. Overall

resource change would be high. A view of the proposed changes as this KV can be seen in Figure 2.1-18.

KV-4 would be accessible to highway neighbors including pedestrians, bicyclists, drivers, and residents of the nearby apartments. This group would have high viewer exposure and sensitivity, especially for the residents of nearby apartment buildings. Viewer response is predicted to be moderate, and viewers are likely to respond positively to the improvements, due to increased visual quality.

Based on the assessed resource change and predicted viewer response, the project is anticipated to have moderate-high visual impact on KV-4. However, it is likely that the proposed improvements would be positively received.

**Figure 2.1-17. Key View (KV) 4: Existing Conditions**



**Figure 2.1-18. Key View (KV) 4: Proposed Improvements**



### **Build Alternative 1**

#### *Temporary Construction Impacts*

Temporary visual impacts would be created during construction that would be visible to both highway users and highway neighbors. In addition, staging of construction equipment and vehicles as well as new traffic due to construction equipment could create temporary visual impacts on highway users and highway neighbors. These temporary impacts would particularly affect highway neighbors as they live, walk, bike, and drive regularly in the project area and so would have a high degree of viewer exposure and sensitivity. Build Alternative 1 would have notable temporary construction impacts on residents of the apartment complexes on Crescent Street for construction of the replacement POC. At that location, trees and vegetation that currently screen I-580 for residents would need to be removed for the new touchdown ramp and a portion of the Crescent Street cul-de-sac would be needed for staging and vehicle storage. Tree removal and staging would also take place at the MacArthur Boulevard end of the proposed POC. These temporary visual impacts from construction would be minimized as best as possible through **Project Features AES-1 to AES-7**, which include tree and vegetation replanting, erosion control, and other measures.



*Permanent Impacts*

Build Alternative 1’s new POC touchdown ramps would affect the visual character of MacArthur Boulevard and Crescent Street. The tree and existing landscaped vegetation that would need to be removed for these touchdown ramps would result in a change in visual character and a degradation of visual quality. Residents living near the new POC would have more open views of I-580 and of a new visually dominant structure. Overall, the visual impact of Build Alternative 1 is anticipated to be moderate-high. Caltrans would apply aesthetic treatment to the new POC under **AMM-AES-3** to reduce these visual effects and better blend the structure in with the surrounding visual character.

**Table 2.1-14. Visual Impact Determinations of KV 5, 6, and 7 (Build Alternative 1).**

<b>Key View (KV)</b>	<b>Proposed Work</b>	<b>Resource Change</b>	<b>Viewer Response</b>	<b>Visual Impact</b>
5	POC Construction at Crescent Street	Moderate-High	High	High
6	POC Construction Across I-580	Moderate-Low	Low	Moderate-Low
7	POC Construction at MacArthur Boulevard	Moderate-Low	Moderate	Moderate

Both the existing conditions and simulations of the proposed changes at each of the key viewpoints listed in the table above are included below to show a visual representation of the improvements. Further discussion of the visual setting and changes at each of these key viewpoints are also provided that show how the visual impact in Table 2.1-14 were determined.

**KV-5**

Figure 2.1-19 shows this view from the Crescent Street cul-de-sac looking west towards I-580. This view is primarily occupied by landscaped vegetation, including trees, as well as apartment buildings on Crescent Street. Both the trees and the apartments compose the distinct vertical lines and the rich, diverse colors of this view. The existing visual quality is moderate-high. The diverse, contrasting visual features contribute to a high degree of vividness and a harmonious visual pattern. The visual quality is slightly detracted by the poor condition of the landscaped vegetation at the end of the cul-de-sac.

Construction of a new replacement POC and its northern touchdown ramp would take place at this location under Build Alternative 1 and is shown in Figure 2.1-20. This would alter the visual character of KV-5 by removing landscaped vegetation at the end of the cul-de-sac to make room for the new touchdown ramp. This would create a more open appearance and add lines to KV-5. The existing balance of colors would be affected, as some landscaped vegetation would be removed along with its green hues. While the new POC would add new distinctive, contrasting elements that increase vividness, it would degrade intactness and unity. The new POC touchdown ramp would not complement the existing harmonious visual pattern of KV-5. The overall resource change would be moderate-high.

KV-5 would be accessible to highway neighbors, primarily the residents of the adjacent apartment buildings. This group would have high viewer exposure and sensitivity, coupled with a high degree of familiarity with the existing visual environmental, and potentially strong local values. The removal of landscaped vegetation and installation of a new POC touchdown ramp would open up views of the freeway to highway neighbors that were previously screened. While this change would make the neighborhood more walkable and accessible for this viewer group, non-visual improvements are not weighed in the ratings of this assessment. Therefore, viewer response is predicted to be high.

The POC installation is anticipated to have a high visual impact on KV-5. Highway neighbors, especially the residents of adjacent apartment buildings in the Crescent Street cul-de-sac, are predicted to have a high viewer response. Public outreach for Build Alternative 1 should focus on those who would be most directly affected by the proposed changes.

**Figure 2.1-19. Key View (KV) 5: Existing Conditions**



**Figure 2.1-20. Key View (KV) 5: Proposed Improvements**



## **KV-6**

This view is shown in Figure 2.1-21 from the EB direction of the I-580 mainline looking south. The existing visual quality of KV-6 is moderate, with the landscaped vegetation along the freeway shoulders screens views of adjacent city streets, limiting vividness. However, this view is relatively intact and its visual features blend somewhat harmoniously.

Both build alternatives would alter the visual character of KV-6 by demolishing the existing POC and Build Alternative 1 proposes a replacement POC that can be seen in the simulation providing in Figure 2.1-22. Removal of the existing POC would alter the form of KV-6, as well as its lines and colors. Build Alternative 1's replacement POC would have a greater effect on visual character at KV-6 than Build Alternative 2. The removal of the existing POC would slightly degrade vividness, as it is a distinctive, contrasting visual element. Taken together with demolition of the existing POC, Build Alternative 1 would have a lesser effect on visual quality than Alternative 2 at this view by constructing a replacement POC. Intactness would not be substantially affected by Build Alternative 1, as POCs are typical visual features along the I-580 corridor. Unity would likewise be unaffected, as the POC is not a contributing factor to the harmonious visual pattern of KV-6. Resource change with Build Alternative 1 would be moderate-low. The existing POC would be demolished, and construction of a new POC would slightly affect the depth of view from KV-6.

KV-6 would be accessible to highway users such as drivers, motorcyclists, and passengers. This viewer group would be moderate viewer exposure and sensitivity. While they would be very close to the proposed changes, their exposure would be limited by traveling at highway speeds. Since this group would also largely be preoccupied with driving, their sensitivity to the proposed changes would be limited. Viewer response is predicted to be low for Build Alternative 1. Highway users are likely to perceive the proposed changes as typical for a freeway like I-580.

Build Alternative 1 is anticipated to have a moderate-low visual impact on KV-6. While the removal of the existing POC would be a substantial change, it would not significantly degrade visual quality and highway users are unlikely to have a strong response to it.



**Figure 2.1-21. Key View (KV) 6: Existing Conditions**



**Figure 2.1-22. Key View (KV) 6: Proposed Improvements**



**KV-7**

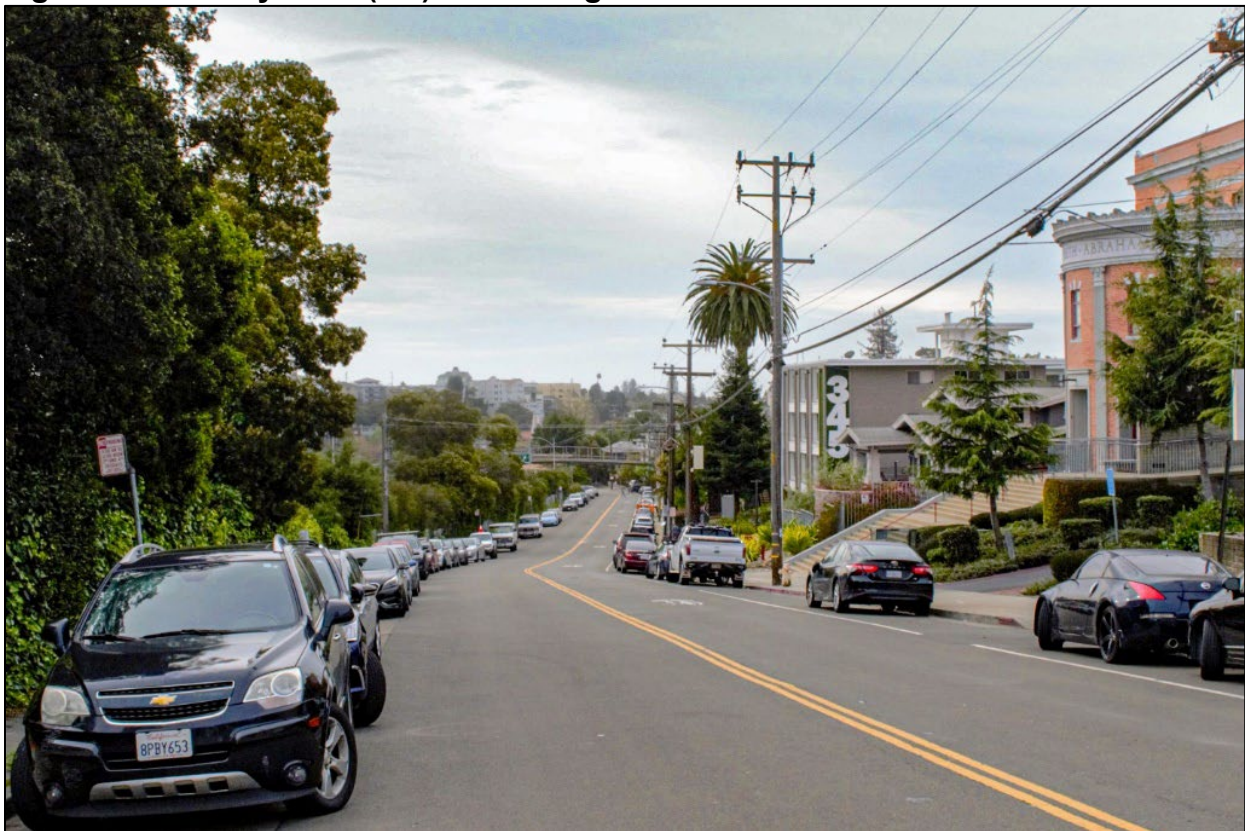
Figure 2.1-23 shows KV-7 from MacArthur Boulevard looking southeast towards the potential replacement POC touchdown ramp under Build Alternative 1. Temple Beth Abraham, a scenic resource identified in this assessment, is located across the street from the proposed new touchdown ramp. The existing visual quality of KV-7 is moderate. The buildings lining MacArthur Boulevard are diverse in appearance, but do not necessarily blend harmoniously with the surrounding individual environmental.

Build Alternative 1 proposes to construct a new replacement POC that would have a southern touchdown ramp in the foreground of KV-7. Build Alternative 1 also includes a new striped crosswalk across MacArthur Boulevard. These improvements would alter the visual character by removing landscaped vegetation along MacArthur Boulevard, opening up views to I-580 that are currently partially screened. These proposed improvements at this KV are depicted in Figure 2.1-24. Since MacArthur Boulevard already supports the touchdown ramp of the existing POC, intactness of KV-7 would not be substantially affected with the location of the new POC's touchdown ramp. Overall, resource change would be moderate-low.

KV-7 would be accessible to highway neighbors, such as pedestrians, bicyclists, drivers, local residents, and worshippers at Temple Beth Abraham. This viewer group would have high viewer exposure and sensitivity, especially local residents and worshippers at Temple Beth Abraham. These viewers in particular have a high degree of familiarity with the existing visual environmental. Viewer response is predicted to be moderate.

Build Alternative 1 is anticipated to have a moderate visual impact on KV-7. As with KV-5, there should be increased public outreach focused on engaging with the local community along MacArthur Boulevard who are close to the proposed improvements.

**Figure 2.1-23. Key View (KV) 7: Existing Conditions**







**Figure 2.1-24. Key View (KV) 7: Proposed Improvements**

**Build Alternative 2**

*Temporary Construction Impacts*

Construction impacts under Build Alternative 2 would be similar to the improvements common to both build alternatives and to Build Alternative 1. Temporary visual impacts would take place during construction of the surface street improvements along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue and would be visible to both highway users and highway neighbors. Highway neighbors would be primarily affected by temporary construction visual impacts, as they live and regularly pass through these local streets. The temporary visual impacts would be due to construction staging at the Grand Avenue UC as well as new traffic from active construction activities. These temporary construction impacts would be minimized as best as possible through Project Features AES-1 to AES-7, which include tree and vegetation replanting, erosion control, and other measures.

*Permanent Impacts*

Once constructed, Build Alternative 2’s surface street improvements would be visible to highway neighbors like pedestrians, bicyclists, and motorists along Grand Avenue and

other nearby local streets. However, the improvements would mostly be limited to new pavement markings and minor curb ramp work to create protected bike lanes and shift the median on Grand Avenue. These improvements would not substantially alter the visual character or quality of the surrounding area. Other improvements proposed under this alternative, like added landscaping along on and off-ramps in the area may be received positively by those living, working, or traveling through the area. The overall visual impact of Build Alternative 2 is anticipated to be moderate.

**Table 2.1-15. Visual Impact Determinations of KV 2 and 6 (Build Alternative 2)**

<b>Key View (KV)</b>	<b>Proposed Work</b>	<b>Resource Change</b>	<b>Viewer Response</b>	<b>Visual Impact</b>
2	Surface Street Improvements	Low	Low	Low
6	Lack of Replacement POC	Moderate	Moderate-Low	Moderate

Both the existing conditions and simulations of the proposed changes at each of the key viewpoints listed in the table above are included below to show a visual representation of the improvements. Further discussion of the visual setting and changes at each of these key viewpoints are also provided that show how the visual impact in Table 2.1-15 were determined.

**KV-2**

Figure 2.1-25 contains two views from the Grand Avenue median island, one looking northeast towards I-580 and the other looking northwest towards I-580. In the background, one has a distant view of the Grand Lake Theatre, a scenic resource identified in this assessment. The existing visual quality of KV-2 is moderate-high, with its transportation elements and structures being visual features typical of the I-580 corridor that blend with adjacent city streets.

Build Alternative 2 proposes surface street improvements that include complete street features along Grand Avenue. This would slightly alter the visual character of KV-2, primarily due to the addition of new lines and hues. Proposed complete streets features may include striped crosswalks and protected bike lanes, which would add distinct lines to the pavement surface. The visual quality of KV-2 would remain largely unaffected by Build Alternative 2 since most of the improvements would be limited to new pavement striping and markings as shown in the simulation in Figure 2.1-26. The overall resource change would be low.

KV-2 would be accessible to highways neighbors, including pedestrians, bicyclists, and drivers. As with KV-1, this group would have higher viewer exposure and sensitivity due to their proximity to the proposed changes and a high degree of awareness. Viewer



response is predicted to be low. In addition, the proposed complete streets improvements would enhance accessibility on Grand Avenue, which could be viewed favorably by viewers.

Build Alternative 2 is anticipated to have a low visual impact on KV-2, as the proposed improvements are minimal and would serve to enhance accessibility on Grand Avenue while maintaining the existing visual character and quality of the area.

**Figure 2.1-25. Key View (KV) 2: Existing Conditions**







**Figure 2.1-26. Key View (KV) 2: Proposed Improvements**





## **KV-6**

This view is the same as shown previously in Figure 2.1-21. It is discussed again because both build alternatives would alter the visual character of KV-6 in different ways. Build Alternative 2 would have a greater effect on visual character at this KV since it does not propose another POC structure after the existing POC is demolished. This means Build Alternative 2 would have a greater effect on the visual character of KV-6 and would result in greater alteration of this view's lines and colors. Removal of the POC and not constructing a similar replacement POC would slightly degrade vividness, as the current POC is distinctive, contrasting visual element. Intactness and unity of the view would not be substantially affected by Build Alternative 2. Under Build Alternative 2, resource change would be moderate rather than moderate-low under Build Alternative 1.

As previously discussed, KV-6 would be accessible to highways users that include drivers, motorcyclists, and passengers. This group would have moderate viewer exposure and sensitivity. Viewer response to Build Alternative 2 in KV-6 is predicted to be moderate-low.

Overall, Build Alternative 2 is anticipated to have a moderate visual impact on KV-6. Removal of the existing POC would be a notable change but would not substantially



degrade visual quality. Highway users are unlikely to have a strong adverse response to the POC's removal.

#### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

The following measures to avoid or minimize the proposed Project's visual effects have been incorporated into the Project and can also be seen in Appendix C:

**AMM-AES-1: Aesthetic Treatment of Bridge Support Columns and Walls.** The proposed steel casings at the Broadway-Richmond Boulevard I-580 Undercrossing (PM 44.51) shall be architecturally treated to blend with their surrounding environment. Additionally, the proposed infill bridge support walls at the Fruitvale Avenue Undercrossing (PM R41.3) shall have architectural treatment to blend with the visual character of their surrounding environment, using context-sensitive designs. This may include form lines and/or art designed by and representative of the local community.

**AMM-AES-2: Aesthetic Treatment of Bridge Barrier Railings.** The proposed Type 836 bridge barrier railings over Webster Street (PM 44.81), Broadway-Richmond Boulevard (PM 44.51), and Fruitvale Avenue (PM R41.3) shall be architecturally treated to minimize their visual impact on the I-580 corridor and the surrounding visual environment. The precise architectural treatment would be determined during the project's detailed design phase.

**AMM-AES-3: Aesthetic Treatment of new Proposed Pedestrian Overcrossing.** The new pedestrian overcrossing structure proposed by Build Alternative 1 shall have architectural treatment to blend with the visual character of its surrounding environment, using a context-sensitive design. This may include treatments of the structure's supports. Particular care shall be placed on the design of the new north and south landings at Crescent Street and MacArthur Boulevard, to ensure that they blend harmoniously with the visual environment of both locations.

### **2.1.9 CULTURAL RESOURCES**

#### **REGULATORY SETTING**

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties (in Section 4(f) terminology, "historic sites").

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Include the following sentence as applicable. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are

outlined in a Memorandum of Understanding (MOU)<sup>1</sup> between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

## **AFFECTED ENVIRONMENT**

A Section 106 Historic Property Survey Report (HPSR) was prepared on March 17, 2022 by Caltrans Office of Cultural Resource Studies (OCRS) Professionally Qualified Staff (PQS) (Caltrans 2022i). This study was conducted in a manner consistent with Caltrans regulatory responsibilities under Section 106 of the NHPA (36 CFR Part 800) and pursuant to the January 2014 PA among FHWA, ACHP, the California SHPO, and Caltrans regarding compliance with Section 106 of the NHPA, as it pertains to the administration of the Federal Aid Highway Program in California. The HPSR documented five Category 5 bridges within the Area of Potential Effects (APE) and no archaeological or other built resources were identified. Caltrans, pursuant to PA Stipulation IX.A has determined a Finding of No Historic Properties Affected is appropriate for this undertaking because there are no historic properties within the APE. This study includes the results of background literature and records research as well as review of as-built plans, aerial photographs, and maps.

The Area of Potential Effects (APE) for the Project was established in consultation with Caltrans PQS mentioned above and Emmanuel Okereke, Caltrans Project Manager, on April 28, 2022. The APE for both architectural history and archaeology is discontinuous and is comprised of four locations from PM R41.33 to PM 44.81, within Caltrans and City of Oakland right-of-way. The APE encompasses the entire project footprint of both build alternatives, including all areas of ground disturbing activity, staging areas, and areas of potential direct or indirect effects. The APE for the Fruitvale Avenue UC location extends between PM R41.23 and R41.73. The horizontal APE for the Grand Avenue and MacArthur Boulevard areas and the areas around the existing POC extends from about PM 43.53 to PM 43.78 and incorporates City of Oakland right-of-way on Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue. The APE for the proposed replacement POC under Build Alternative 1 extends from PM 43.86 to PM 48.9. For the Broadway-Richmond Boulevard UC location, the APE extends from PM 44.43 to PM 44.9. The extent of the vertical APE for all locations was set at 5-feet below ground surface. Surface and buried site sensitivity reflect low potential as the project location is situated in a highly developed landscape.

Caltrans PQS also initiated a search of the Sacred Land Files (SLF) and requested a list of all culturally affiliated tribes from the Native American Heritage Commission (NAHC) on May 13, 2021. NAHC responded on June 6, 2021 with a contact list for culturally

---

<sup>1</sup> The MOU is located on the SER at <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/5024mou-15-a11y.pdf>

affiliated tribes and positive results for the SLF. Formal notification under Section 106 and AB 52 began with letters sent initially on July 22, 2021, and again on September 12, 2021 and on April 6, 2022 to the following tribal contacts: to the following contacts: Chairperson Ann Marie Sayers of the Indian Canyon Mutsun Band of Costanoan, Chairperson Corina Gould of the Confederated Villages of Lisjan, Chairperson Irene Zwierlein of the Ama Mutsun Tribal Band of Mission San Juan Bautista, Kanyon Sayers Roods of the Indian Canyon Mutsun Band of Costanoan, and Chairperson Katherina Perez of the North Valley Yokuts. On May 18, 2022, Chairperson Corrina Gould, representative of the Confederated Villages of Lisjan, responded with interest to consult on the project responded to Caltrans with interest to consult on the Project and met with Caltrans PQS on June 10, 2022 via a Zoom meeting to further discuss the project locations and work footprints. The Project was discussed, and no Tribal concerns were raised. Consultation was concluded that day. Should the design team change workplans, the Tribe would be notified of any changes. No other responses were received from the other Tribal contacts.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

The temporary impacts that would be caused by construction activities include visual impacts, increased noise levels, and traffic impacts as described in other sections in this document. However, as described earlier, no historic properties, built resources, or archaeological resources were found to be within the Project's APE. The HPSR included the five bridge structures that are part of the Project: the three UCs and the existing POC, which is technically two separate POCs. However, these five bridges are Category 5 bridges, meaning they are not considered to be historic bridges. Within the HPSR, Caltrans determined that a Finding of No Historic Properties Affected is an appropriate for the proposed Project under either build alternative. In addition, no tribal concerns were raised through the coordination efforts held with tribal representatives since the proposed work would be limited to the bridges and existing paved surfaces. However, tribal representatives would be notified of any Project changes. Therefore, construction activities related to either build alternative would not impact any historical or archaeological resources.

If cultural materials or human remains are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find as outlined in **Project Features CUL-1 and CUL-2**, respectively. A complete list of Project Features can be found in Table 1.6 and in Appendix B.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby

area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner would notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, would then notify the Most Likely Descendent (MLD). Further provisions of PRC 5097.98 are to be followed as applicable.

#### *Permanent Impacts*

Neither build alternative would require earth-moving activities or ground disturbance once they are constructed. The build alternatives would not result in any permanent impacts.

#### **No-Build Alternative**

##### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain and there would be no earth-moving activities or ground disturbance. Therefore, there would be no impact to cultural resources.

#### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from **Project Features CUL-1 and CUL-2**, also included in Appendix B, no cultural AMMs would be required for the proposed Project.



## 2.2 PHYSICAL ENVIRONMENT

### 2.2.1 WATER QUALITY AND STORMWATER RUNOFF

#### REGULATORY SETTING

##### ***Federal Requirements: Clean Water Act***

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source<sup>2</sup> unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

---

<sup>2</sup> A point source is any discrete conveyance such as a pipe or a man-made ditch.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>3</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

***State Requirements: Porter-Cologne Water Quality Control Act***

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments

---

<sup>3</sup> The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### ***State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs)***

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### ***National Pollutant Discharge Elimination System (NPDES) Program***

#### ***Municipal Separate Storm Sewer Systems (MS4)***

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water.” The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department’s MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department’s MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);
2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

#### *Construction General Permit*

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

### *Section 401 Permitting*

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

### *Trash Capture Requirements*

The State Water Resources Control Board (State Water Board) adopted Order No. 2012-0011-DWQ (Permit), on September 19, 2012, issuing waste discharge requirements as NPDES Permit No. CAS000003, Statewide Storm Water Permit and Waste Discharge Requirements for State of California Department of Transportation (Caltrans). The State Water Board amended the Permit on May 20, 2014, with Order No. 2014-0077-DWQ, which modified Caltrans' trash reduction requirements by incorporating trash reduction requirements. This Permit contains prohibitions, limitations, and provisions regulating the stormwater and non-stormwater discharges from the Department's properties and facilities, and discharges associated with operation and maintenance of the State highway system.

State Water Board Resolution 2015-0019 amended the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and Part 1 of the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan), which are referred to as the Trash Amendments. These Trash Amendments, which became effective December 2, 2015, include provisions to control trash and a prohibition of trash discharge to surface waters of the State or the deposition of trash where it may be discharged to surface waters. The Trash Amendments, specifically Ocean Plan Chapter III.L.2.b and ISWEBE Plan Chapter IV.A.3.b, require the Department to prohibit the discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State "in all significant trash generating areas (STGAs) by installing, operating, and maintaining any combination of full capture systems, multi-benefit projects, other treatment controls, and/or institutional controls for all storm drains that capture runoff from significant trash generating areas."



## **AFFECTED ENVIRONMENT**

The following section summarizes the results of the Water Quality Study prepared for the Project (Caltrans 2021k).

### **Regional and Local Hydrology**

The Project is located within the San Mateo Bayside Hydrologic Sub-Area (HSA) [#204.40] of the East Bay Cities Hydrologic Area and South Bay Hydrologic Unit. The project is also located within the jurisdiction of the San Francisco Bay RWQCB (Region 2). The project has been identified as being within the San Lorenzo Creek-Frontal San Francisco Bay Estuaries watershed and the Sausal Creek-Frontal San Francisco Bay Estuaries sub watershed. This area experiences an average annual precipitation of about 20 inches.

Receiving water bodies located near the Project area include Sausal Creek, which crosses I-580 near the Fruitvale Avenue UC, Lake Merritt at approximately 0.15 miles away, and the Central San Francisco Bay approximately 1.4 miles away.

### **Significant Trash Generating Areas**

The Project area contains locations considered by Caltrans to be significant trash concentration areas (STGAs). Due to this, Caltrans has included two locations for trash capture device installation with the Project, one along the westbound (WB) I-580 Fruitvale Avenue on-ramp at postmile R41.557 and the other near the AIMS College Prep High School between the WB I-580 Grand Avenue on and off-ramps at postmile 43.788.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

Construction activities under both build alternatives include excavation, demolition of the existing pedestrian overcrossing and bridge barrier replacement, concrete work, and painting and restriping. Potential water quality impacts from construction staging and active construction site activities could result in the release of fluids, fuels, debris, concrete material, sediment, and litter beyond the job site perimeter and into any receiving water bodies. The concrete work needed for construction of the new POC under Build Alternative 1 also poses potential impacts to water quality due to the pH levels associated with producing fresh concrete.

The trash capture device to be installed along the WB I-580 Fruitvale Avenue on-ramp would be an Inclined Screen Gross Solids Removal Device (GSRD) that is approximately 11 feet wide by 11 feet long and 6 feet deep. The trash capture device near the WB I-580 Grand Avenue on and off-ramps would a trash net placed along an

existing unlined ditch at that location. A concrete pad would need to be placed underneath the trash net and is estimated to be trapezoidal in shape and be about 20 feet long, 2 feet wide at the narrow end, and 8 feet wide at the long end. While installation of the trash devices would require some excavation, they do not pose any additional impacts to water quality in the Project area.

Overall, the amount of DSA is estimated to be less than 1.0 acre under either build alternative and includes construction access routes, POC demolition and construction areas, excavation areas, and staging areas. As a result, neither alternative is subject to the Construction General Permit (CGP) but would require a Water Pollution Control Plan (WPCP) to be prepared to control all potential temporary construction impacts. The WPCP would include construction Best Management Practices (BMPs) that would reduce the occurrence of pollutants in stormwater discharges both during construction and permanently to the Maximum Extent Practicable (MEP). The BMPs would also control sedimentation, erosion, or discharge of other pollutants to waters. The BMPs included in the Project are outlined in **Project Feature WQ-1** and include the use of temporary fiber rolls and silt fences, drainage inlet protection, concrete washouts, storm drainage inlet protection, materials management, and street sweeping. A full list of BMPs under **Project Feature WQ-1** is included in Appendix B. Implementation of **Project Feature WQ-1** would minimize the potential impacts to water quality and stormwater runoff.

#### *Permanent Impacts*

Since neither of the build alternatives would result in more than 1 acre of new impervious surface once constructed, post-construction storm water treatment measures would not be needed. There would be no impacts to water quality or receiving water bodies once either build alternative is constructed. With installation of the two trash capture devices proposed under both build alternatives, water quality in the area may even benefit from reduced levels of trash discharging into surrounding water bodies.

#### **No-Build Alternative**

##### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and POC would remain. There would be no construction of a replacement POC or of surface street improvements. Existing travel lanes, utilities, and structures would remain. Therefore, there would be no impact to water quality or stormwater runoff.

#### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

No AMMs would be required to reduce effects related to water quality.

## **2.2.2 GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY**

### **REGULATORY SETTING**

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department’s Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

### **AFFECTED ENVIRONMENT**

This following section summarizes the findings of the Geologic and Seismic Memorandum prepared for the Project (Caltrans 2021f).

#### ***Geologic Setting***

The work proposed at the Broadway-Richmond Boulevard Undercrossing (UC), Webster Street UC, and Fruitvale Avenue UC would be restricted to the bridge structures themselves and the areas immediately near the bridge columns. The area around the proposed POC at MacArthur Boulevard and Crescent Street contains Pleistocene-era alluvial fan deposits, which are characterized by sands, silts, and gravel in varying amounts. The Pleistocene is a geological era that lasted approximately from 2.58 million to 11,700 years ago. Locally, Pleistocene alluvial fan deposits are known to contain fossils and are considered paleontologically sensitive.

### **ENVIRONMENTAL CONSEQUENCES**

#### **Build Alternatives**

##### ***Temporary Construction Impacts***

All of the proposed work under both build alternatives would be subject to strong ground shaking from local faults in the area. However, the proposed construction activities would not further expose the public to hazards from ground shaking. The various Project bridge sites do not lie within an Alquist-Priolo Earthquake Fault Zone and so would not experience hazards due to fault ruptures from active faults. The sites would also not expose the public to other seismic hazards such as seismically induced

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*

landslides or liquefaction. Liquefaction is a phenomenon in which soils lose all shear strength and essentially turn into liquids. The Project locations under both build alternatives also do not lie in areas containing erodible soils, soils or geological units that are prone to instability, or collapsible or expansive soils.

### *Permanent Impacts*

Both build alternatives would be designed in accordance with Caltrans' Standard Specifications and current Seismic Design Criteria. Once constructed, the build alternatives would not adversely affect the geology or soils present in the area. There would be no impact.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and POC would remain. Therefore, there would be no impact to geology or soils.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

No AMMs or MMs would be required to reduce effects related to geology, soils, seismicity, and topography.

## **2.2.3 PALEONTOLOGY**

### **REGULATORY SETTING**

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

16 United States Code (USC) 431-433 (the "Antiquities Act") prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered "objects of antiquity" by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies. 16 United States Code (USC) 470aaa (the Paleontological Resources Preservation Act) prohibits the excavation, removal, or damage of any paleontological resources located on federal land under the jurisdiction of the Secretaries of the Interior or Agriculture without first obtaining an appropriate permit. The statute establishes criminal and civil penalties for fossil theft and vandalism on federal lands. Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

## **AFFECTED ENVIRONMENT**

Geologic and Seismic Memorandum prepared for the Project (Caltrans 2021f).

### ***Paleontologic Setting***

The work proposed at the Broadway-Richmond Boulevard Undercrossing (UC), Webster Street UC, and Fruitvale Avenue UC would be restricted to the bridge structures themselves and the areas immediately near the bridge columns. The area around the proposed POC at MacArthur Boulevard and Crescent Street contains Pleistocene-era alluvial fan deposits, which are characterized by sands, silts, and gravel in varying amounts. The Pleistocene is a geological era that lasted approximately from 2.58 million to 11,700 years ago. Locally, Pleistocene alluvial fan deposits are known to contain fossils and are considered paleontologically sensitive.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternative 1**

#### ***Temporary Construction Impacts***

Build Alternative 1 proposes a replacement POC from MacArthur Boulevard to the Crescent Street cul-de-sac, spanning an area that contains Pleistocene alluvial fan deposits, which are considered paleontologically sensitive as previously mentioned. Caltrans would implement Project Feature PAL-1 so that all construction activities would stop in the event that paleontological resources are discovered at the job site. Since construction of the replacement POC would impact these alluvial fan deposits, Caltrans would also implement Project Feature PAL-2, preparation of a project-specific paleontological mitigation plan, to minimize any impacts to paleontological resources. Once this plan is completed and the necessary monitoring occurs, construction of Build Alternative 1 would have a less than significant impact on paleontological resources.

#### ***Permanent Impacts***

Once built, Build Alternative 1 would not have permanent effects to paleontological resources. There would be no impact.

### **Build Alternative 2**

#### ***Temporary Construction Impacts***

Build Alternative 2 does not propose construction of a new POC and instead proposes surface street improvements between the touchdown ramps of the existing POC. As such, construction of Build Alternative 2 would avoid the paleontologically sensitive area containing Pleistocene alluvial fan deposits. In addition, the bridge barrier replacement and seismic work at the three undercrossings as well as the surface street improvements would be restricted to the structures themselves, to areas immediately



near the bridge columns, and to paved surfaces. As a result, construction of Build Alternative 2 would have no impact to paleontological resources.

### *Permanent Impacts*

Once built, Build Alternative 1 would not have permanent effects to paleontological resources. There would be no impact.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain. Neither a replacement POC nor surface street improvements would be constructed. Therefore, there would be no impact to paleontological resources.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features already described and included in Appendix B, no AMMs or MMs would be required to reduce effects related to paleontology.

## **2.2.4 HAZARDOUS WASTE/MATERIALS**

### **REGULATORY SETTING**

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the [Comprehensive Environmental Response, Compensation and Liability Act \(CERCLA\) of 1980](#), and the [Resource Conservation and Recovery Act \(RCRA\) of 1976](#). The purpose of CERCLA, often referred to as “Superfund,” is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the [CA Health and Safety Code](#) and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

#### **AFFECTED ENVIRONMENT**

Caltrans completed a Hazardous Waste Memorandum for the Project (Caltrans 2021g). According to the SWRCB GeoTracker database and the California Department of Toxic Substances Control EnviroStor database, there are no known hazardous waste sites listed under Section 65962.5 of the California Government Code within the Project area including but not limited to hazardous waste facilities, land designated as hazardous waste property, and hazardous waste disposal sites.

The existing UC structures and existing POC may contain asbestos-containing material and lead-based paint. Heavy metals associated with vehicle tire and brake wear, oil and grease, and exhaust emissions are common pollutants along roadways. Aerially deposited lead (ADL) also exists along roadways throughout California from the historical use of leaded gasoline. As a result, surface soils under the existing bridge's steel elements may have high levels of lead due to ADL, heavy metals, and petroleum products.

## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

As mandated by the U.S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP), hazardous materials bridge surveys would be conducted due to both the bridge barrier replacement work at the three undercrossings and the demolition of the existing POC, both of which are improvements common to both build alternatives. NESHAP regulations require that structural concrete set to be demolished be tested for asbestos content. The results of the bridge surveys would help determine any necessary mitigation of identified hazardous materials. In addition, if significant excavation or permanent soil displacement occurs due to demolition of the POC or structure seismic retrofitting work, then a site investigation to characterize soil contamination levels would be conducted. Any soil excavated or permanently displaced due to construction of the replacement POC under Build Alternative 1 would also need to be included in the soil site investigation.

The surface street improvements under Build Alternative 2 would likely not need to be included in the soil site investigation. The pavement work associated with the surface street improvements would likely not result in significant exposure of the underlying soils. In the event that underlying soils are exposed during construction, MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue have been paved for decades which has likely shielded the soils from elevated concentrations of ADL. Both the bridge surveys and site investigation, if ultimately required, would be conducted during the design phase.

The hazardous-material-related construction specifications would be developed in accordance with Section 14-11 of Caltrans Standard Specifications and would specify the handling, transportation, and disposal requirements for hazardous materials, including asbestos-containing material and lead-based paint as outlined in **Project Feature HAZ-1**.

ADL from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met. As summarized in Appendix B, **Project Feature HAZ-2** would require Caltrans to prepare an ADL Work Plan. In addition, **Project Feature HAZ-3** would require Caltrans to prepare a Hazardous Materials Incident Contingency Plan; therefore, hazardous waste and materials would be handled in accordance with all

local, state, and federal regulations and no adverse effects would occur during construction.

### *Permanent Impacts*

Once constructed, neither of the build alternatives would release hazardous materials. However, vehicles traveling on I-580 and local streets would continue to generate pollutants from tire and brake wear, oil and grease leaks, and exhaust emissions. The release of these pollutants would be similar to existing conditions, therefore the build alternatives would not result in new permanent effects.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain. Therefore, there would be no impact to hazardous materials or wastes.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features previously mentioned and included in Appendix B, no AMMs or MMs would be required to reduce effects related to hazardous materials or wastes.

## **2.2.5 NOISE**

### **REGULATORY SETTING**

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

#### ***California Environmental Quality Act***

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section would focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

### ***National Environmental Policy Act and 23 CFR 772***

For highway transportation projects with Federal Highway Administration (FHWA) involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). The following Table 2.2-1 lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.



**Table 2.2-1: Noise Abatement Criteria (NAC)**

<b>Activity Category</b>	<b>NAC, Hourly A-Weighted Noise Level, Leq(h)</b>	<b>Description of activity category</b>
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>1</sup>	67 (Exterior)	Residential.
C <sup>1</sup>	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.
		<sup>1</sup> Includes undeveloped lands permitted for this activity category.

Figure 2.2-1 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

According to the Department’s *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011*, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors:

- 1) the noise reduction design goal of 7 dB at one or more impacted receptors;
- 2) the cost of noise abatement; and
- 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

**Figure 2.2-1. Noise Levels of Common Activities**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night, Concert Hall (Background)
	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

**AFFECTED ENVIRONMENT**

The “Procedures for Abatement of Highway Traffic Noise” (23 CFR 772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement options. Under 23 CFR 772, projects are categorized as Type I or Type II projects. Type I projects are defined as proposed federal or federal-aid highway improvements for the construction of a highway on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. Type II projects are defined as proposed federal or federal-aid highway for noise abatement on an existing highway.

Both build alternatives involve bridge barrier replacements and seismic retrofit at UCs in the project area, demolition of an existing POC, and either a replacement POC or surface street improvements to retain the connection between the Grand Lake and Adams Point neighborhoods. Neither build alternative would result in significant physical changes to I-580 or local road such as changing horizontal or vertical alignments or adding additional travel lanes. Therefore, the build alternatives would not increase traffic noise levels and would not be considered a Type I or Type II project per 23 CFR 272. As such, neither build alternative requires noise abatement measures. However, due to the Project's close proximity to receptors in the surrounding community, Caltrans has evaluated construction noise that would be generated by the build alternatives.

Caltrans completed a Construction Noise Analysis Memorandum for the project (Caltrans 2020d). The memorandum identified POC demolition as the noisiest construction activity under this Project. The current land uses around the existing POC is composed of residential and commercial areas as well as the AIMS College Prep High School. There are ten noise monitoring sites located in this surrounding residential area consisting of eight residences, AIMS College Prep High School, and the Gran Abraham Preschool. These monitoring sites are representative of sensitive receptors around both POC demolition and POC construction under Build Alternative 1 for this Project.

Field investigations and noise monitoring was performed to establish ambient noise levels. Noise monitoring was conducted in two separate time periods, from June 25, 2021 to June 28, 2021 and from June 28, 2021 to June 30, 2021. The ambient noise data collected showed that the hourly average noise levels (Leq) dropped substantially at night from noise levels in the daytime hours. The hourly average noise levels range from 56.34 dBA to 75.83 dBA during the day and from 53.43 dBA to 72.47 dBA during the night. Another metric analyzed, Lmax, is the maximum noise level reached in a one-hour time period. According to the data collected, the maximum noise level reaching loud levels, exceeding 86 dBA, several times throughout both the day and night. This occurs most often at the AIMS College Prep High School.

Caltrans completed Part 2 of the Construction Noise Analysis Memorandum that focused on the construction-related noise produced during construction of the improvements at the Webster Street UC, Broadway-Richmond Boulevard UC, and the Fruitvale Avenue UC. The current land uses around these UCs is primarily residential and commercial, with some schools. There were nine noise monitoring sites identified, with four being located around the Webster Street and Broadway-Richmond Boulevard UCs and 5 located around the Fruitvale Avenue UC. Ambient noise levels were not established for these locations.

## ENVIRONMENTAL CONSEQUENCES

### Improvements Common to Both Build Alternatives

#### *Temporary Construction Impacts*

Construction activities for both build alternatives would be temporary and would be done in phases. Construction is anticipated to begin in January 2025 and would last approximately 275 working days under Build Alternative 1 or 235 working days under Build Alternative 2. While the majority of construction activities would occur during daytime hours of 6 AM to 9 PM, some construction activities would occur during nighttime hours (between 9 PM and 6 AM) for demolition of portions of the POC. Night work for POC demolition may only be needed for approximately 7 to 10 days.

The Roadway Construction Noise Model (RCNM, version 1.1) was used to estimate the noise levels during construction activities that would reach all ten monitoring sites during POC demolition and all nine monitoring sites around bridge barrier replacement and seismic retrofit work. RCNM is the Federal Highway Administration's (FHWA) national model for the prediction of construction noise. This construction noise model includes representative sound levels for the most common types of construction equipment and the estimated usage factor of each equipment. The usage factor represents the percentage of time that the equipment would be operating at full power. Vehicles and equipment likely to be used during each phase of construction were inputted into RCNM to estimate the maximum (L<sub>max</sub>) and the average hourly noise levels (Leq) at various distances. L<sub>max</sub> is the maximum noise level reached in a specific period, in this case one hour. Leq is the averaged level equivalent in energy to the time-varying noise levels within a specific period. In some instances, maximum noise levels estimated can be slightly lower than the average noise levels. This occurs because maximum noise levels generated in short bursts by multiple pieces of construction equipment are not likely to occur at the same moment. Hourly average noise levels resulting from multiple pieces of construction equipment would be additive resulting in slightly higher calculated noise levels.

While geometric spreading (increased distance) is considered in the model, noise reduction due to other factors such as ground absorption or shielding along the path are not figured in. For this reason, the model tends to overestimate the noise levels for locations at longer distance or where obstructions are present. No adjustments were made to account for the project and the residential area. Generally, the reduction provided by the first row of buildings can be reasonably assumed to be 3 dBA, with 1.5 dBA for each additional row.

This noise model is also conservative since it assumes that multiple equipment would be at the same location. For example, in the case of bridge demolition, distance is measured from the beginning or the end of the bridge to receptors for all equipment

used. This does not happen in actual work since equipment would not occupy the same space at the same time, they would move around depending on task.

### **POC Demolition**

The noisiest construction activity that is part of this Project would be demolition of the existing POC. As shown in Table 2.2-2 below, the predicted construction noise levels from the proposed POC demolition would exceed the Caltrans noise standard of 86 dBA Lmax at locations closer than 75 feet from demolition activity. The predicted noise levels also exceed ambient noise levels at most of the monitoring locations. However, as sound travels away from the source (activity) the sound level drops off at a rate of 6 dBA for each doubling of the distance. This is shown by the noise level results for the hypothetical locations of 50 feet and 100 feet away from demolition activities in Table 2.2-2.



**Table 2.2-2. Modeled Construction Noise Levels for POC Demolition**

Map Label/ Receptor	Site Address	Site Name or Type	Distance to Daytime Demolition (Ft)	Distance to Nighttime Demolition (Ft)	Daytime Lmax	Daytime Leq(h)	Nighttime Lmax	Nighttime Leq(h)
1	746 Grand Ave (exterior)	AIMS High School	15	100	<b>100.0</b>	<b>98.2</b>	83.6	81.6
1	746 Grand Ave (interior)	AIMS High School	15	100	<b>80.0</b>	<b>78.2</b>	<b>63.6</b>	<b>61.6</b>
2	401 Santa Clara Ave	Residential	105	430	83.1	81.2	70.9	68.9
3	460 Valle Vista Ave	Residential	590		68.1	66.2		
4	484 Crescent Street	Residential	600		68.0	66.1		
5	360 Santa Clara Ave	Residential	680		66.9	65.0		
6	520 Van Buren Ave	Residential	15	65	<b>100.0</b>	<b>98.2</b>	<b>87.3</b>	85.4
7	398 Euclid Ave	Residential	105	190	83.1	81.2	78.0	76.0
8	336 Euclid Ave	Gan Avraham Preschool	800		65.5	63.6		
9	455 Lagunitas Ave	Residential	480		69.9	68.0		
10	301 McCathy Blvd	Residential	1050		63.1	61.2		
Hypothetical	At 50 feet away	N/A	50		<b>89.6</b>	<b>87.6</b>		
Hypothetical	At 75 feet away	N/A	75		<b>86.1</b>	84.1		
Hypothetical	At 100 feet away	N/A	100		83.6	81.6		

Notes:

1. California Streets and Highway Code, Section 216 requires interior noise not to exceed 52 dBA Leq in classrooms, library, multipurpose room, or space used for pupil personnel services. The noise levels assumed that the school building type is "Light frame, Ordinary Sash (Closed), with transmission loss of 20 dBA (FHWA-HEP-10-025). Noise levels in exceedance are highlighted in yellow. Even though the interior noise levels exceed 52 dBA, the school will likely have no impacts since the POC bridge demolition will be scheduled when school is not in session.
2. Standard Specification 14-8.02 specifies that during construction the noise levels should not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 pm to 6:00 am. Noise levels in exceedance are shown in yellow highlighting.
3. Hypothetical locations are modeled locations along the highway. Doubling the distance between the listener and the sound source will reduce the decibel level by 6 dBA.
4. The demolition work that is planned during nighttime covers the portion of the POC directly above the freeway and will be farther away from the sensitive receptors.

The following figure, Figure 2.2-2, provides a map showing where the receptors included in Table 2.2-2 above are located in relation to the existing POC. The receptors/monitoring sites are identified in red-colored stars within Figure 2.2-2. The numbered stars correspond to the number included in the column titled “Map Label/Receptor” in Table 2.2-2 above.

**Figure 2.2-2. Location of Receptors – POC Demolition**



As can be seen in Table 2.2-2, POC demolition activities have been modeled to produce noise levels exceeding Caltrans standard of 86 dBA at some sensitive receptors. In particular, receptors 1 and 6 are located very close. Since receptor 1 is a school, the AIMS College Prep High School, the interior noise levels cannot exceed 52 dBA as required by the California Streets and Highway Code, Section 216. While POC demolition is estimated to result in 80.0 dBA at this location, demolition will be scheduled to occur when school is not in session to avoid these temporary noise

impacts to the school. Therefore, no impacts are likely to occur at this location. Receptor 6 is an apartment complex surrounding the POC's MacArthur Boulevard touchdown ramp. Since demolition of this ramp and any portions within 65 feet of the apartment is expected to result in noise levels above the Caltrans standard of 86 dBA, any demolition work within 75 feet of the apartment will not occur during nighttime hours as laid out in **Project Feature NOI-1**. As shown in Table 2.2-2, hypothetical locations at a distance of 75 feet from demolition should result in less than 86 dBA. For portions of the POC at least 75 feet away from the apartment, nighttime demolition can take place. Given how close some sensitive receptors are to demolition activities, Caltrans would also implement **AMM-NOI-1** which would call for the contractor to perform noise control and noise monitoring during construction. Examples of noise control measures that could be implemented may include temporary enclosures between noisy activities and noise sensitive receptors or around activities with high noise levels, using smaller equipment or equipment with lower noise levels, etc.

Overall, it is estimated that demolition activities could be completed in about 7 to 10 working days. In addition to **Project Feature NOI-1**, Caltrans would also implement **Project Features NOI-2 through NOI-6** which minimize temporary noise impacts during construction through measures including conducting extensive public outreach throughout construction, locating staging areas away from residences, enclosing staging areas if feasible, and using quieter alternative construction methods or equipment. A full list of Project Features is provided in Table 1.6 and Appendix B.

### **Bridge Barrier Replacements and Seismic Retrofits**

Construction noise was also modeled for the improvements proposed at Webster Street UC, Broadway-Richmond Boulevard UC, and Fruitvale Avenue UC. In particular, noise modeling was performed for three major construction activities: bridge railing replacements at each UC, excavation and foundation work needed for steel casings work (seismic retrofits) at the Broadway-Richmond Boulevard UC, and excavation and foundation work needed for infill walls at the Fruitvale Avenue UC. The modeled construction noise levels for each of these activities is shown in the following Table 2.2-3. As sound travels away from the source (activity) the sound level drops off at a rate of 6 dBA for each doubling of the distance. This is shown by the noise level results for the hypothetical locations of 50 feet and 100 feet away from demolition activities in Table 2.2-3.

Figures 2.2-3 and 2.2-4 that follow are maps showing where the nine receptors included in Table 2.2-3 are located in relation to the major construction activities already mentioned. The receptors/monitoring sites are identified in red-colored stars within Figures 2.2-3 and 2.2-4 and correspond to the number included in the column titled "Map Label/Receptor" in Table 2.2-3.

**Table 2.2-3. Modeled Construction Noise Levels for Work at Undercrossings**

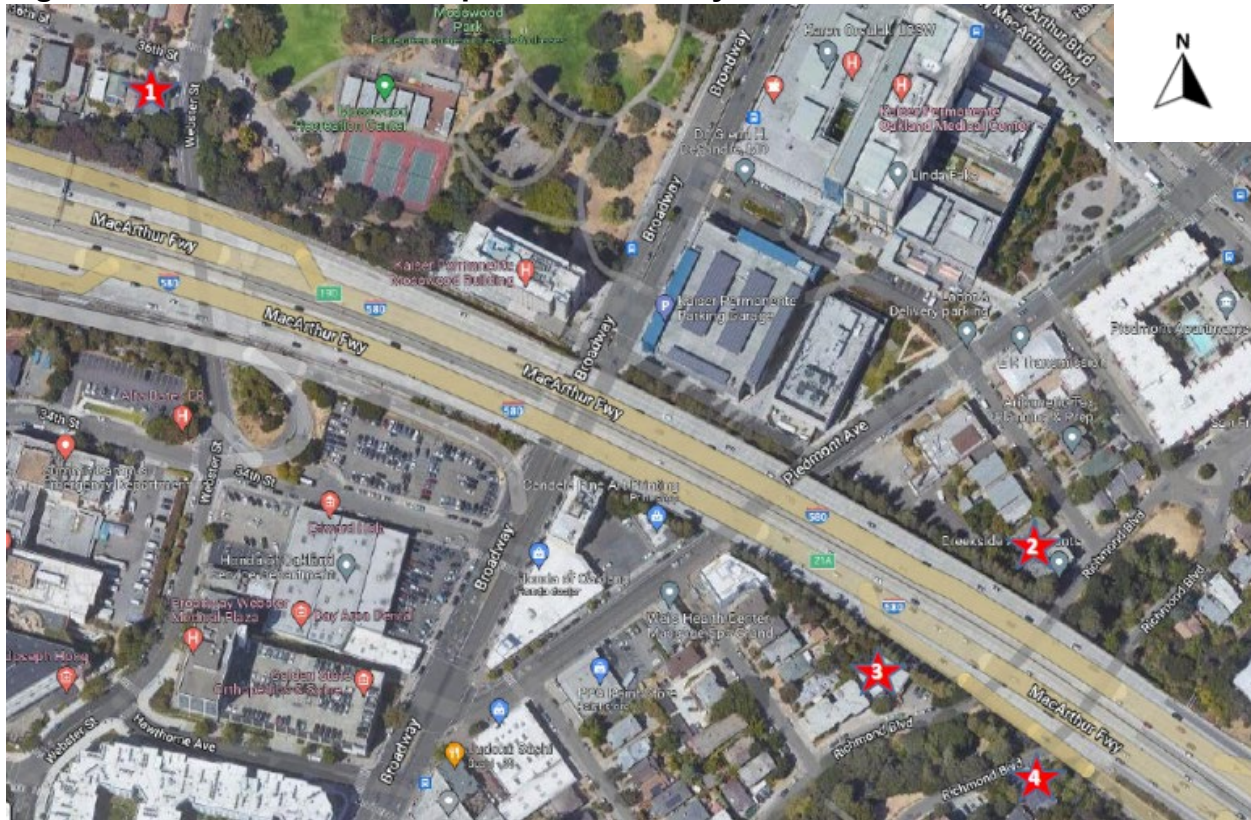
Map Label/ Receptor	Site Address	Distance to Bridge Railing (Ft)	Bridge Railing Lmax	Bridge Railing Leq(h)	Distance to Seismic Retrofit at Broadway-Richmond (Ft)	Seismic Retrofit at Broadway-Richmond Lmax	Seismic Retrofit at Broadway-Richmond Leg(h)	Distance to Seismic Retrofit at Fruitvale (Ft)	Seismic Retrofit at Fruitvale Lmax	Seismic Retrofit at Fruitvale Leq(h)
1	411 36th St	100	83.6	79.4						
2	3465 Richmond Blvd	35	<b>92.7</b>	<b>88.5</b>	40	<b>86.9</b>	<b>87.4</b>			
3	3415 Richmond Blvd	30	<b>94.0</b>	<b>89.9</b>	30	<b>89.4</b>	<b>89.9</b>			
4	3460 Richmond Blvd	30	<b>89.6</b>	85.4	115	77.8	78.2			
5	2110 Montana St	215	76.9	72.8				330	84.9	78.3
6	2127 Woodbine Ave	210	77.1	73.0				280	<b>86.3</b>	79.7
7	Francophone School (Exterior)	210	77.1	73.0				220	<b>88.4</b>	81.8
7	Francophone School (Interior)	210	<b>57.1</b>	<b>53.0</b>				220	<b>68.4</b>	<b>61.8</b>
8	3404 Champion St	120	82.0	77.8				160	<b>91.2</b>	84.6
9	2601 Harold St	100	83.6	79.4				140	<b>92.3</b>	85.7
Hypothetical Location	At 50 feet away	50	<b>89.6</b>	85.4	50	85.0	85.5	50	<b>101.3</b>	<b>94.7</b>
Hypothetical Location	At 75 feet away	100	83.6	79.4	100	79.0	79.4	100	<b>95.2</b>	<b>88.6</b>
Hypothetical Location	At 100 feet away	150	80.0	75.9	150	75.5	75.9	150	<b>91.7</b>	85.1
Hypothetical Location	At 200 feet away	200	77.5	73.4	200	73.0	73.4	200	<b>89.2</b>	82.6

Notes:

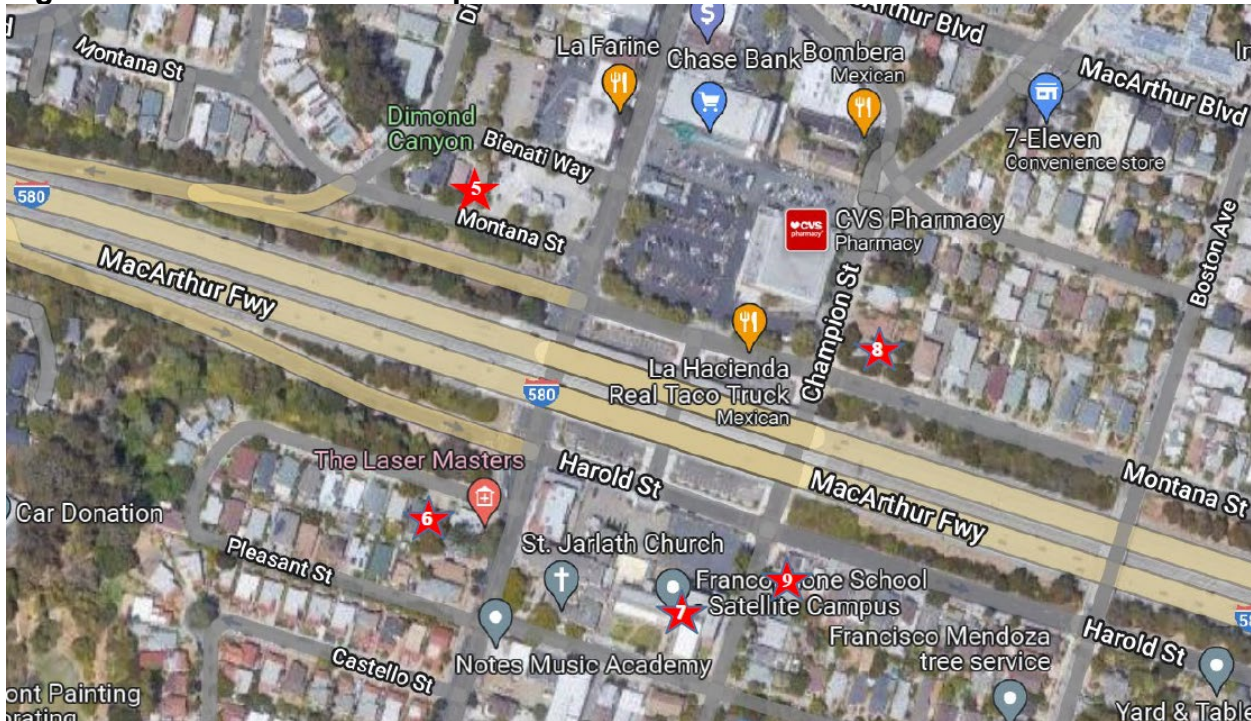
1. California Streets and Highway Code, Section 216 requires interior noise not to exceed 52 dBA Leq in classrooms, library, multipurpose room, or space used for pupil personnel services. The noise levels assumed that the school building type is "Light frame, Ordinary Sash (Closed), with transmission loss of 20 dBA (FHWA-HEP-10-025). Noise levels in exceedance are highlighted in yellow.
2. Standard Specification 14-8.02 specifies that during construction the noise levels should not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 pm to 6:00 am. Noise levels in exceedance are shown in yellow.
3. Hypothetical locations are modeled locations along the highway. Doubling the distance between the listener and the sound source will reduce the decibel level by 6 dBA.



**Figure 2.2-3. Location of Receptors – Broadway-Richmond Boulevard**



**Figure 2.2-4 Location of Receptors – Fruitvale Avenue**



As can be seen in Table 2.2-3, bridge railing replacements at all of the UCs exceed Caltrans noise standard of 86 dBA at locations closer than 50 feet. Similarly, seismic retrofit work at the Broadway-Richmond Boulevard UC appears to also exceed 86 dBA at locations closer than 50 feet. The seismic retrofit of Fruitvale Avenue UC appears to be noisier, with this work exceeding 86 dBA at locations as far enough as 300 feet away. Since these construction activities exceed the Caltrans standard, Caltrans will follow **Project Feature NOI-1** and perform this work during daytime hours between 6:00 am and 9:00 pm. Nightwork is not proposed for any of the bridge railing replacement or seismic retrofit work.

However, receptor 7 is the Francophone School's Satellite Campus and is located close to the proposed infill walls at the Fruitvale Avenue UC. Since receptor 7 is a school, the interior noise levels cannot exceed 52 dBA under the California Streets and Highway Code, Section 216. As shown in Table 2.2-3, daytime construction of the infill walls would exceed this limit and result in 68.4 dBA. However, the modeling used a conservative approach and assumed impact pile driving would be used for foundation work at this location. In addition to implementing on-site noise controlling and monitoring to ensure that construction noise is minimized under **AMM-NOI-1**, Caltrans would also implement **AMM-NOI-2** that recommends using cast-in-drill-hole (CIDH) pile driving. CIDH piles would substantially lower the estimated construction noise levels associated with the seismic retrofits at this location. If CIDH piles are determined to not be feasible at this location, then work at this location would be performed when the school is not in session to avoid impacts.

Overall, since the bridge barrier replacement and seismic retrofit work at the UCs will take place during daytime hours, there would be no adverse impact to the nearby receptors. However, in addition to **Project Feature NOI-1** and the AMMs mentioned, Caltrans would also still implement **Project Features NOI-2 through NOI-6**. These measures would further minimize the temporary noise impacts during construction to nearby residences and schools.

### *Permanent Impacts*

Once construction is completed, the improvements common to both build alternatives would not increase capacity or traffic levels on I-580 or local roads. Therefore, the Improvements would not permanently increase traffic noise levels in the Project area after construction. These shared improvements would not require any noise abatement measures.

## **Build Alternative 1**

### *Temporary Construction Impacts*

The new replacement POC proposed under Build Alternative 1 would be constructed northwest of the existing POC, spanning I-580 from Crescent Street to MacArthur Boulevard. This construction activity would also result in temporary construction noise to

surrounding residences. Noise modeling for this construction activity used the same ten receptors in the Grand Lake and Adams Point neighborhoods that were used in the analysis for POC demolition. As such, the modeled construction noise levels presented in Table 2.2-4 correspond to the receptors in the map previously provided in Figure 2.2-2.

Based on the noise levels in Table 2.2-4, it appears that construction of the new POC will not result in noise levels that exceed the Caltrans standard of 86 dBA for any of the selected receptors. Since receptor 1 is a school, the AIMS College Prep High School, noise levels will also not exceed the 52 dBA interior noise level standard for schools. Even for hypothetical locations at 50 feet from construction, construction noise would not exceed 86 dBA. This means that even for apartment complexes located nearest to the proposed POC's touchdown ramps on either Crescent Street or MacArthur would not experience adverse noise impacts.

Even still, Caltrans would implement **Project Features NOI-1 through NOI-6** when constructing the new POC to avoid and minimize any temporary construction noise on the surrounding residents on Crescent Street, MacArthur Boulevard, and throughout the Project area. With implementation of these Project Features, Build Alternative 1 is not anticipated to result in adverse temporary noise impacts.

**Table 2.2-4. Modeled Construction Noise Levels for New POC Construction**

Map Label/ Receptor	Site Address	Site Name or Type	Distance to Daytime Demolition (Ft)	Daytime Lmax	Daytime Leq(h)
1	746 Grand Ave (exterior)	AIMS High School	560	63.4	62.2
1	746 Grand Ave (interior)	AIMS High School	560	43.4	42.2
2	401 Santa Clara Ave	Residential	495	64.4	63.3
3	460 Valle Vista Ave	Residential	860	59.8	58.6
4	484 Crescent Street	Residential	370	67.0	65.8
5	360 Santa Clara Ave	Residential	660	61.9	60.8
6	520 Van Buren Ave	Residential	580	63.1	61.9



7	398 Euclid Ave	Residential	790	60.4	59.3
8	336 Euclid Ave	Gan Avraham Preschool	340	67.7	66.6
9	455 Lagunitas Ave	Residential	1150	57.1	56.0
10	301 McCathy Blvd	Residential	105	77.9	76.8
Hypothetical Location	At 50 feet away	N/A	50	84.4	83.2
Hypothetical Location	At 75 feet away	N/A	75	80.8	79.7
Hypothetical Location	At 100 feet away	N/A	100	78.3	77.2

### *Permanent Impacts*

Once construction of Build Alternative 1 is completed, the new replacement POC would not increase capacity or traffic levels on I-580 or local roads. Therefore, Build Alternative 1 would not permanently increase traffic noise levels in the Project area after construction and would not require any noise abatement measures.

### **Build Alternative 2**

#### *Temporary Construction Impacts*

The surface street improvements proposed under Build Alternative 2 were not included in the Construction Noise Memorandum prepared for this Project as the nature of these improvements are not expected to result in noise levels that are above ambient levels. The improvements do involve some pavement work related to curb ramps, shifting the median along Grand Avenue, converting a slip lane from Grand Avenue to Santa Clara Avenue into a pedestrian plaza. However, this pavement work is minor in comparison to the construction activities related to the other improvements proposed under this Project.

Nevertheless, Caltrans would still implement **Project Features NOI-1 through NOI-6** when constructing the surface street improvements to minimize any temporary construction noise on the surrounding residents and businesses in the Project area. Build Alternative 2 is not anticipated to result in adverse temporary noise impacts.

### *Permanent Impacts*

Once construction of Build Alternative 2 is completed, the surface street improvements along MacArthur Boulevard, Grand Avenue, and Santa Clara Avenue would not increase capacity or traffic levels on I-580 or local roads. Therefore, Build Alternative 2 would not permanently increase traffic noise levels in the Project area after construction and would not require any noise abatement measures.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barriers and POC would remain the same. There would be no seismic retrofits and there would also be no construction of either a replacement POC or surface street improvements. The existing travel lanes on I-580 and local roads would remain unchanged. Therefore, the No-Build Alternative would not result in any temporary construction noise.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

The following measures, also listed in Appendix C, would also be included in the Project to further reduce impacts related to construction noise levels:

**AMM-NOI-1: Construction Noise Control and Noise Monitoring.** Construction noise control and monitoring will be included as part of the Contract documents to minimize construction noise. Examples of noise control measures may include temporary enclosures or stockpiles of excavated material between noisy activities and noise sensitive receptors or around activities with high noise levels, using smaller equipment or equipment with lower noise levels, etc. This AMM will be implemented for POC demolition work near AIMS College Prep High School and nearby residences and for seismic retrofit at the Fruitvale Avenue UC near the Francophone School's Satellite Campus.

**AMM-NOI-2: CIDH Piles at Fruitvale Avenue UC.** Recommend the use of Cast-in-Drill-Hole (CIDH) pile driving at this location for seismic retrofit and foundation work instead of impact pile driving.

## **2.2.6 ENERGY**

### **REGULATORY SETTING**

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

Energy Policy Act (EPAAct) of 1992 aims to reduce U.S. dependence on petroleum and improve air quality by addressing all aspects of energy supply and demand. EPAAct 1992 encourages the use of alternative fuels through both regulatory and voluntary activities and approaches the US Department of Energy carries out.

Energy consumption is related to greenhouse gas (GHG) emission, that is, as energy is consumed, GHG is released to the environment. California legislation, AB 32, calls for a return to 1990 GHG levels by 2020. Long-term, the law calls for emissions to be reduced to 80% below 1990 levels by 2050.

The California Environmental Quality Act (CEQA) Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

### **AFFECTED ENVIRONMENT**

The following section summarizes the Energy Analysis Report (Caltrans 2022e) prepared for the Project. Additional information is pulled from the Draft Project Report for the Project as well as Section 2.1.7, Traffic and Transportation/Pedestrian and Bicycle Facilities.

All project locations are located along I-580 in Alameda County. The roadway system in the Project study area includes the I-580 mainline and a series of local and arterial roadways. I-580 is a major commuter highway classified as a Priority Interregional Highway and Freight Route that begins at I-5 in San Joaquin County and ends at US 101 in Marin County. It is also the only Interstate freeway in the Bay Area that has banned truck traffic. The portions of I-580 within the project limits are primarily an eight-lane divided freeway, but sometimes ranges from four to five lanes in either direction. Based on current and forecasted traffic data for the I-580 mainline, the portions of I-580 in the Project limits saw average daily traffic (ADT) ranging between 198,700 and 215,000 in 2017. Forecasts of the construction year in 2026 show the ADT ranging from 220,600 to 238,300.

### **ENVIRONMENTAL CONSEQUENCES**

CEQA guidelines require that an EIR include an analysis of a project's potential for significant environmental effects resulting from wasteful, inefficient, or unnecessary use of energy. A quantitative analysis is required for projects that increase capacity or provide congestion relief, both of which could affect the ability of a transportation facility to accommodate existing and future traffic demand. The proposed project was not classified as a capacity increasing project and is not expected to change the existing vehicle mix. Examples of capacity increasing projects include new highways, added travel or auxiliary lanes, and new or reconfigured interchanges. However, the proposed project would relieve congestion on local roadways. An assessment of the proposed



project’s potential direct and indirect energy consumption was performed. Direct energy includes operational energy use and the one-time energy expenditure from project construction. Indirect energy includes maintenance activities required to operate or maintain the project.

**Build Alternatives**

*Temporary Construction Impacts*

Both build alternatives are expected to consume energy during construction. Activities that consume energy also generate by-products, most notably greenhouse gas (GHG) emissions which are linked to climate change. To assess the energy consumed by construction equipment and vehicles, version 9.0.0 of the Road Construction Emissions Tool Model (RCEM), created by the Sacramento Metropolitan Air Quality Management District, was used to assess gasoline and diesel consumed by construction equipment and vehicles. Specifically, RCEM was used to quantify the carbon monoxide (CO<sub>2</sub>) emissions from the construction activities associated with the build alternatives. The emissions calculated per build alternative are included in Table 2.2-3 below. It should be noted that the RCEM model assumes that diesel fuel would be used by construction vehicles and equipment whereas gasoline would be used by workings commuting to and from the job sites.

**Table 2.2-4. Construction Fuel Consumption**

<b>Build Alternatives</b>	<b>Diesel (gallons)</b>	<b>Gasoline (gallons)</b>
<b>Total (Build Alternative 1)</b>	144,083.88	13,291.09
<b>Total (Build Alternative 2)</b>	121,462.96	9,887.81

According to RCEM, Build Alternative 1 would consume 144,083.88 gallons of diesel fuel and 13,291.09 gallons of gasoline while Built Alternative 2 would consume 121,462.96 gallons of diesel and 9,887.81 gallons of gasoline. Energy consumption would be short-term from the use of petroleum fuels by construction equipment and vehicles as well as vehicles used by construction workers commuting to and from work. The short-term expenditure of fuel during construction is not considered a wasteful or inefficient use of non-renewable resources as the fuel is being used to bring existing structures within the Project area up to current Caltrans and ADA standards that would benefit the traveling public. Therefore, construction of either build alternative would result in less than significant impacts to energy consumption.

Under **Project Feature GHG-1**, included in Appendix B, the Project would implement construction best management practices (BMPs) that minimize energy consumption like providing regular vehicle and equipment maintenance and recycling non-hazardous

wastes. PF-GHG-1 also includes the use of solar energy for signal boards where feasible.

### *Permanent Impacts*

Once constructed, the build alternatives would not increase capacity or result in changes in traffic volumes, vehicle mix, or any other factors that would cause an increase in energy consumption. Therefore, the proposed build alternatives would not conflict with regional or statewide goals on climate change, air quality, and petroleum reduction or result in wasteful, inefficient, or unnecessary consumption of energy after construction.

### **No-Build Alternative**

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barriers and POC would remain the same. There would be no seismic retrofits and there would also be no replacement POC or surface street improvements constructed. Therefore, the No-Build Alternative would not have any impacts to construction-related energy consumption.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

No AMMs or MMs would be required to reduce consumption of energy.

## **2.3 BIOLOGICAL ENVIRONMENT**

Caltrans prepared a Natural Environment Study (NES) (Caltrans 2022b) to provide technical information to determine the extent that the project would affect plants, wildlife, and natural communities, including special-status species, potentially jurisdictional wetlands and waters, and protected natural plant communities. The biological resources and determination within the NES are detailed in the following subsection. As summarized in Appendix B, **Project Features BIO-1 through BIO-8** are incorporated into the Project. Appendix H includes the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Natural Diversity Database (CNDDDB), and California Native Plant Society (CNPS) Species Lists.

### **2.3.1 NATURAL COMMUNITIES**

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species Section 2.3.5. Wetlands and other waters are also discussed below in Section 2.3.2.

### **AFFECTED ENVIRONMENT**

The Biological Study Area (BSA) for the project encompasses the project area and the areas that may be directly or indirectly be affected by project activities. The BSA includes three segments of the Caltrans right-of-way along I-580 between PM R41.328 and 44.807. The BSA has been expanded beyond Caltrans right-of-way in a few locations to include the existing POC landing areas. Most of the area within the BSA is classified as road or urban, with ruderal and landscaped vegetation, trees, and shrubs present along shoulder and gore areas. The I-580 freeway and adjacent side streets within the BSA consist of paved surfaces with no vegetation and no habitat value for plant or wildlife species. Additionally, the vegetated areas present along the road do not provide suitable habitat for special-status species due to regular maintenance, lack of connectivity to natural areas, and presence of dense urban development.

## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

As described above, within the Project's BSA, there is little vegetation or suitable habitat present, and that the vegetation present lacks connectivity to natural areas. Most of the vegetation occurs within ruderal or landscaped areas that has limited habitat value other than for nesting birds. The temporary construction impacts that would occur from the build alternatives would be from vegetation or tree removal needed for staging areas, bridge barrier replacement work, POC demolition, and construction of the new POC under Build Alternative 1. However, vegetation clearing and grubbing and tree removal activities would not impact riparian vegetation, would not impact any wildlife corridors, and would not result in habitat fragmentation.

To minimize the impacts from vegetation clearing and grubbing and tree removal, Caltrans would implement **Project Feature BIO-8 and AES-3**, both of which would require revegetation of areas disturbed by construction activities with native species to the maximum extent practicable. In addition, Caltrans would also implement **Project Feature AES-1**, which would preserve the amount of vegetation and trees to the maximum extent feasible and utilize high visibility temporary fencing for any vegetation to be protected, and **Project Feature AES-2**, which calls for tree replacement planting and irrigation.

#### *Permanent Impacts*

Once construction of either build alternative is complete, the width of existing roadways would remain the same as existing conditions, there would be no impacts to wildlife corridors, and there would be no habitat fragmentation. Neither build alternative would result in permanent impacts to natural communities.

### No-Build Alternative

#### *Temporary Construction and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain and seismic retrofitting would not occur. Therefore, there would be no impact to natural communities.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Aside from the Project Features previously mentioned and included in Appendix B, no AMMs or MMs would be required to reduce impacts to natural communities.

## **2.3.2 WETLANDS AND OTHER WATERS**

### **REGULATORY SETTING**

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

#### **AFFECTED ENVIRONMENT**

Within the project BSA, there is one jurisdictional waterway, Glen Echo Creek, that is located within the Richmond Boulevard Loop and is adjacent to the Broadway-Richmond Undercrossing. This waterway is culverted under I-580 at PM 44.51 and is also culverted northeast and southwest of Richmond Boulevard for over a half mile in each direction. All work at the Broadway-Richmond UC would take place upland of the culvert headwall. This area is not expected to be habitat for special-status species since it is surrounded by urban development and since long stretches of the creek are culverted. The riparian vegetation present also does not provide suitable habitat for nesting birds.



## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

Seismic retrofit work and bridge railing replacements on the Broadway-Richmond Boulevard UC would occur adjacent to Glen Echo Creek, the waterway present near Richmond Boulevard. To prevent any impacts to the creek during construction, a silt fence would be installed upland of the culvert headwall of the waterway. Additionally, a containment system would be installed to prevent bridge barrier replacement work from impacting the creek. Both the silt fence, containment system, and other construction BMPs to reduce or avoid impacts to water quality are outlined in **Project Features BIO-2 and WQ-1**. In addition, the Project plans to avoid any construction activities within wetland areas or waterways as stated in **Project Feature BIO-7**. With implementation of these Project Features, no impacts to the wetlands or waterways are anticipated. No other design features unique to either Build Alternative 1 or 2 would impact other wetlands or waterways.

#### *Permanent Impacts*

Neither build alternative would result in permanent impacts to wetlands or waterways.

### No-Build Alternative

#### *Construction and Operation*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain and seismic retrofitting would not occur. Therefore, there would be no impact to wetlands or waterways.

## AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Aside from the Project Features included in Appendix B, no AMMs or MMs would be required to reduce impacts to wetlands or waterways.

### 2.3.3 PLANT SPECIES

#### REGULATORY SETTING

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are

formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section, Section 2.3.5, in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

#### **AFFECTED ENVIRONMENT**

Based on the literature review that included the California Native Plant Society (CNPS) Online Inventory, the California Rare Plant Ranking (CRPR) system, and the California Natural Diversity Database (CNDDB) database, there are 26 special-status plant species considered to have potential to be present within the BSA. Of these 26 special-status species, 5 are considered to have a low potential to occur in the BSA. The remaining special-status plant species are not expected to occur within the BSA since the habitat consists of either a disturbed urban setting or limited riparian vegetation, both of which do not provide suitable habitat for special-status plant species. For a complete list of species, see Table 2.3-1 or the Caltrans NES (Caltrans 2022b).

**Table 2.3-1. Special-Status Plant Species with Potential to Occur in the Biological Study Area (BSA)**

<b>Scientific Name Common Name</b>	<b>Federal</b>	<b>State</b>	<b>RPR</b>	<b>Flowering Period</b>	<b>Habitat Requirements</b>	<b>Species Potential to Occur in the BSA</b>
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	-	-	1B.2	Mar-Jun	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland. 5-1,640 feet	<b>Low</b> – Limited low quality and ruderal grassland in the BSA.
<i>Androsace elongata</i> <i>ssp. acuta</i> California androsace	--	--	4.2	Mar-Jun	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland. 490-4,280 feet	<b>Low</b> – Limited low quality and ruderal grassland in the BSA.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	--	--	1B.2	Mar-Jun	Adobe clay. Playas, valley and foothill grassland, and vernal pools. 0-195 feet	<b>Low</b> – Limited low quality and ruderal grassland in the BSA.
<i>Helianthella castanea</i> Diablo helianthella	--	--	1B.2	Mar-Jun	Usually rocky, axonal soils. Often in partial shade. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. 200-4,265 feet	<b>Low</b> – Limited low quality chaparral and oak woodland in the BSA.
<i>Hemizonia congesta</i> <i>ssp. Congesta</i> congested-headed hayfield tarplant	--	--	1B.2	Apr-Nov	Valley and foothill grassland. 20-1,835 feet.	<b>Low</b> – Limited low quality and ruderal grassland in the BSA.

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

Given the lack of suitable habitat within the BSA and that no special-status plant species expected to occur within the BSA, neither Build Alternative is expected to result in direct or indirect impacts on special-status plant species during construction. However, if special-status plant species are discovered during construction of the Project, consultation with the appropriate agencies would be initiated.

#### *Permanent Impacts*

As mentioned, given the lack of suitable habitat within the BSA and no special-status plant species expected to occur within the BSA, neither build alternative is expected to result in permanent, direct or indirect impacts on special-status plant species. Through **Project Feature BIO-8**, any areas temporarily affected by construction activities will be revegetated with native species of grass, shrub, or trees to restore habitat values.

### **No-Build Alternative**

#### *Construction and Operation*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain and seismic retrofitting would not occur. Therefore, there would be no impact to plant species.

## **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features already mentioned and listed in Appendix B, no other AMMs would be required to reduce impacts to plant species.

## **2.3.4 ANIMAL SPECIES**

### **REGULATORY SETTING**

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section 2.3.5 below. All other special-status animal species

are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

#### **AFFECTED ENVIRONMENT**

Based on the literature review, 21 wildlife species were considered to have potential to be present within the BSA. Due to the highly disturbed nature of the BSA, its location within an urbanized landscape, its isolation from other areas by urban development, and the lack of suitable upland or aquatic habitat, no state or federally listed wildlife species are actually expected to occur in the BSA or be affected by the Project. Additionally, no critical habitat for federally listed species occurs within the BSA. Despite this, migratory birds and roosting bats may occur within BSA.

#### ***Migratory Birds***

Multiple occurrences of state or federal-listed bird species were recording within two miles of the BSA according to the CNDDDB records search. Recorded species include the following:

- Alameda song sparrow (*Melospiza melodia pusillula*), State Species of Special Concern
- American peregrine falcon (*Falco peregrinus anatum*), CDFW Fully Protected
- California black rail (*Laterallus jamaicensis coturniculus*), State Threatened
- California Ridgway's rail (*Rallus longirostris obsoletus*), Federally Endangered, State Endangered
- Cooper's hawk (*Accipiter cooperii*), included on CDFW special animals list

- Yellow rail (*Coturnicops noveboracensis*), State Species of Special Concern

These species were analyzed for potential to occur in the BSA. Because of the lack of suitable habitat, specifically wetland and marsh habitat, listed species are not expected to occur in the BSA. In general, habitat within the BSA is of marginal quality due to continual human disturbance from the highway. However, all land cover types within the BSA except for paved roads may be used by non-listed bird species for nesting. Raptors and smaller bird species may nest in the trees within the BSA. Urban areas may also provide suitable nesting habitat through street trees and landscape plantings. Even barren areas in the BSA may be used by ground-nesting birds.

### **Roosting Bats**

Bats are widespread within California and may be found in any habitat. Different bat species have different roosting requirements, and roosts can be found in a variety of habitats and locations. Two special-status bat species have a low potential to occur within the BSA based on recorded CNDDDB occurrences in the region:

- Silver-haired bat (*Lasionycteris noctivagans*), included on CDFW special animals list
- Hoary bat (*Lasiurus cinereus*), included on CDFW special animals list

The exact locations of the occurrences are unknown, but they were recorded in the U.S. Geological Survey's (USGS) Oakland East and Oakland West 7.5-minute quadrangle map, respectively. Hoary bats and silver-haired bats are widespread species and are included in CDFW's State Special Animals List. The hoary bat is most commonly found in association with forested habitats near water (CDFW 2021). The silver-haired bat is closely associated with coniferous, mixed coniferous, and deciduous forests, and especially in old growth forests. There is limited habitat that contains tree cover for roosting and foraging within the BSA. The biologist performed a site visit on October 6, 2021, where the limited potential for bat roosting was confirmed. The expansion joints located between segments of the undercrossing structures, common locations for night roosts, were already plugged with moss and plant material. In addition, these locations did not contain guano (bat droppings) or urine stains, signs that bats are using the locations to roost. At the existing POC location, there is low-quality night roosting habitat is present. However, suitable habitats for maternity and winter roost sites were not observed during the site visit. Due to the lack of suitable habitat for roosting locations, there is a low potential for bats to occur in the BSA.



## ENVIRONMENTAL CONSEQUENCES

### Build Alternatives

#### *Temporary Construction Impacts*

Temporary impacts from construction of both build alternatives include vegetation clearing and grubbing and increased noise levels. However, due to the limited value of habitats present throughout the Project's BSA, birds and bats are the only protected wildlife species expected to occur within the BSA. Bat species may be temporarily impacted by noise if individuals are present during construction. However, construction noise is not anticipated to significantly exceed ambient noise levels along I-580. Additionally, bats generally tend to be tolerant of noise and typically continue to roost in structures that experience active construction as long as their roosting sites aren't directly impacted or exposed. Due to the lack of suitable habitat throughout the BSA, special-status bird species are not anticipated to nest within or adjacent to the BSA. However, bird species protected by the Migratory Bird Treaty Act may nest within or adjacent to the BSA. Implementation of **Project Feature BIO-1** would require work windows and preconstruction surveys for nesting birds. Temporary construction impacts also include vegetation clearing and grubbing. However, no riparian vegetation would be removed as most of the vegetation present within the BSA occurs within ruderal or landscaped areas that have limited habitat value. As outlined in **Project Feature BIO-8**, the areas where clearing and grubbing are necessary would be revegetated with appropriate species after the Project is constructed. **Project Features BIO-3 and BIO-4** during construction would also aid in helping to avoid entrapment, entanglement, or injury of wildlife.

#### *Permanent Impacts*

Both build alternatives are not expected to result in permanent impacts to special-status bird species, bird species protected by the Migratory Bird Treaty Act, or special status bat species. Under both build alternatives, there are no proposed alteration to expansion joints or other potential and suitable bat roosting crevices. The existing POC, specifically the Santa Clara Avenue POC portion, that would be demolished does contain potential night roosting habitat for bats. However, the habitat on this structure is only marginally suitable for night roosting activities and similar habitats are abundant throughout the rest of the BSA. In addition, the installation of infill walls proposed at the Fruitvale undercrossing structure would create additional structures or features that would provide suitable night roosting habitat for bats. Permanent impacts to bird nesting habitat are also not anticipated as the areas of work are in highly disturbed and urban areas.

## **No-Build Alternative**

### *Construction and Operation*

Under the No-Build Alternative, the existing bridge barrier railings and pedestrian overcrossings would remain and seismic retrofitting would not occur. Therefore, there would be no impact to any animal species.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features discussed and included in Appendix B, no other AMMs would be required to reduce impacts to animal species.

## **2.3.5 THREATENED AND ENDANGERED SPECIES**

### **REGULATORY SETTING**

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise

lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

### **AFFECTED ENVIRONMENT**

The following section is based on the Natural Environment Study (NES) (Caltrans 2022b) prepared for the Project. For the purposes of this section, only federal or state threatened, or endangered species would be discussed.

Caltrans biology staff conducted a literature review and database research, and of the 34 plant species identified, four were found to be either federally or state listed as threatened or endangered, or some combination of both. See Table 2.3-2 for a list of these four plant species and additional information such as habitat requirements, etc. However, as described earlier, the Project sites and by extension the BSA includes highly urbanized and disturbed areas, roadways, and small vegetated areas consisting of mostly ruderal and landscaped vegetation, trees, or shrubs. These vegetated areas present within the BSA generally do not provide suitable habitat for special-status species. Due to the low habitat value, none of these four threatened or endangered plant species are expected to occur within the Project BSA.

Of the 26 animal species identified through literature review and database research, 17 are identified as being federally or state listed as threatened or endangered, or some combination of both. As mentioned earlier, due to the lack of suitable or aquatic habitat throughout the Project BSA, none of these 17 species are expected to occur in the Project BSA. See Table 2.3-3 for a list of these 17 animal species.

**Table 2.3-2. Federal or State Endangered or Threatened Plant Species**

Common Name	Scientific Name	Federal Status	State Status	RPR	Flowering Period	Habitat Requirements	Potential to Occur at the Project Site / Effect Finding for Federally Listed Species
Robust spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	FE	--	1B.1	Apr-Sept	Sandy or gravelly. Chaparral (maritime), cismontane woodland (openings), coastal dunes, and coastal scrub. 10-980 feet	<b>Not Expected</b> – No suitable habitat in the BSA. / <b>No Effect</b>
Presidio clarkia	<i>Clarkia franciscana</i>	FE	SE	1B.1	May-Jul	Coastal scrub, and valley and foothill grassland (serpentinite). 80-1,100 feet	<b>Not Expected</b> – No suitable habitat in the BSA. / <b>No Effect</b>
Santa Cruz tarplant	<i>Holocarpha macradenia</i>	FT	SE	1B.1	Jun-Oct	Often clay, sandy. Coastal prairie, coastal scrub, and valley and foothill grassland. 35-720 feet	<b>Not Expected</b> – Considered extirpated in Alameda County. / <b>No Effect</b>
California seablite	<i>Suaeda californica</i>	FE	--	1B.1	Jul-Oct	Marshes and swamps (coastal salt). Elevation 0-50 feet.	<b>Not Expected</b> – No suitable habitat in the BSA. / <b>No Effect</b>

**Table 2.3-3. Federal or State Threatened or Endangered Species**

Common Name	Scientific Name	Status (Federal/State)	Habitat Requirements	Potential to Occur in the BSA / Effect Finding for Federally Listed Species
Bay checkerspot butterfly (Invertebrates)	<i>Euphydryas editha bayensis</i>	FT / --	Serpentine areas in Santa Clara and San Mateo Counties where its host plant, dwarf plantain ( <i>Plantago erecta</i> ), is present.	<b>Not Expected</b> – Populations in Alameda County are extirpated. No Critical Habitat in BSA. / <b>No Effect</b>
Vernal pool fairy shrimp (Invertebrates)	<i>Branchinecta lynchi</i>	FT / SA	Wide variety of vernal pool habitats and temporary ponds.	<b>Not Expected</b> – No suitable habitat in BSA. No Critical Habitat in BSA. / <b>No Effect</b>
Delta smelt (Fish)	<i>Hypomesus transpacificus</i>	FT / SE	Found in the Sacramento-San Joaquin Delta upstream of Suisun Bay. Rarely occur in Carquinez Straight or San Pablo Bay.	<b>Not Expected</b> - No aquatic habitat in BSA. No Critical Habitat in BSA. / <b>No Effect</b>
Green sturgeon – southern DPS (Fish)	<i>Acipenser medirostris</i>	FT / SSC	Spawn in deep pools or "holes" in large, turbulent, freshwater river main-stems. Adults live in oceanic waters, bays, and estuaries when not spawning.	<b>Not Expected</b> - No aquatic habitat in BSA. No Critical Habitat in BSA. / <b>No Effect</b>
Longfin smelt (Fish)	<i>Spirinchus thaleichthys</i>	FC / ST	Anadromous. Spend most of their adult life in bays, estuaries, and nearshore coastal areas, and migrate into freshwater rivers to spawn.	<b>Not Expected</b> – No aquatic habitat in BSA.
Steelhead – Central CA Coast DPS (Fish)	<i>Oncorhynchus mykiss</i>	FT / SA	Anadromous. Spawn and rear in mid and high elevation coastal streams. Juveniles typically migrate to the ocean to mature during their third year, and return to spawn as adults in their fourth year. Adult steelhead may spawn more than once.  This DPS includes spawning populations from the Russian River to Aptos Creek, including tributaries to San Francisco Bay.	<b>Not Expected</b> - No aquatic habitat in BSA. No Critical Habitat in BSA. / <b>No Effect</b>
Tidewater goby (Fish)	<i>Eucyclogobius newberryi</i>	FE / SSC	Benthic species that occupies brackish water in shallow coastal lagoons or lower stream reaches.	<b>Not Expected</b> - No aquatic habitat in BSA. No Critical Habitat in BSA. / <b>No Effect</b>

California red-legged frog (Amphibians)	<i>Rana draytonii</i>	FT / SSC	Breeds in ponds and pools in slow-moving streams with emergent vegetation; adjacent upland habitats are often used for temporary refuges or dispersal movements.	<b>Not Expected</b> – Marginally suitable upland habitat present adjacent to the BSA. No known occurrences within two mile radius of BSA. / <b>No Effect</b>
California tiger salamander (Amphibians)	<i>Ambystoma californiense</i>	FT / ST	Vernal pools and/or seasonal water sources; requires underground refuges in adjacent upland areas, especially ground squirrel burrows.	<b>Not Expected</b> – No suitable habitat within the BSA. No Critical Habitat in BSA.
Alameda whipsnake (Reptiles)	<i>Masticophis lateralis euryxanthus</i>	FT / ST	Typically found in chaparral and scrub habitats, but will also use adjacent grassland, oak savanna, and woodland habitats. Often found on south-facing slopes and ravines with rock outcrops, deep crevices, or abundant rodent burrows.	<b>Not Expected</b> – Limited chaparral and scrub habitat within and adjacent to the BSA.
Green Sea Turtle-East Pacific DPS Population (Reptiles)	<i>Chelonia mydas</i>	FT / --	Found in temperate open ocean environments and spawn on beaches with abundant foraging nearshore.	<b>Not Expected</b> – No suitable habitat within the BSA.
American peregrine falcon (Birds)	<i>Falco peregrinus anatum</i>	FD / SD; FP	Nests on cliffs, banks, dunes, mounds, large bridges, and tall buildings, typically near wetlands, lakes, rivers, or other water bodies. Nest consists of a scrape or a depression or ledge in an open site.	<b>Not Expected</b> – No suitable habitat within the BSA.
California black rail (Birds)	<i>Laterallus jamaicensis coturniculus</i>	-- / ST	Nests in dense vegetation, often in pickleweed and tall grasses, near the upper limits of tidal flooding zone in marshes.	<b>Not Expected</b> - No suitable habitat within the BSA
California least tern (Birds)	<i>Sternula antillarum</i>	FE / SE; FP	Nest colonially on the ground in sandy or gravelly beaches. Forage over open water in coastal regions, including within San Francisco Bay.	<b>Not Expected</b> – No suitable habitat within the BSA.
Ridgway's rail (= California clapper rail) (Birds)	<i>Rallus longirostris obsoletus</i>	FE / SE, FP	Salt-water & brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay.	<b>Not Expected</b> - No suitable marsh habitat located in the BSA.
Western snowy plover (Birds)	<i>Charadrius alexandrinus nivosus</i>	FT / SSC	Found on sandy beaches, salt pond levees & shores of large alkali lakes. Require sandy, gravelly or friable soils for nesting.	<b>Not Expected</b> – No suitable habitat within the BSA. No Critical Habitat within BSA. / <b>No Effect</b>
Salt-marsh harvest mouse (Mammals)	<i>Reithrodontomys raviventris</i>	FE / SE	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed ( <i>Salicornia</i> sp.) is	<b>Not Expected</b> - No suitable marsh habitat located in the BSA. / <b>No Effect</b>



			primary habitat. Builds loosely organized nests and requires higher areas to escape high tides.	
--	--	--	---	--

## **ENVIRONMENTAL CONSEQUENCES**

### **Build Alternatives**

#### *Temporary Construction Impacts*

Caltrans has determined that this Project would have “no effect” on the listed plant or animal species, their habitats, or protected communities since there are no suitable or critical habitats located within the BSA. This “no effect” determination has been made for all federally listed species identified in the USFWS and NMFS species lists requested for the proposed Project (included in Appendix H). Caltrans has also concluded that the proposed Project would not affect any state-listed species. No consultation with CDFW under CESA would be requested. Therefore, temporary impacts are not expected because listed species are not expected to occur in the Project area. With implementation of **Project Features BIO-1, BIO-3, and BIO-4**, the risk of adversely impacting wildlife in general would be reduced through preconstruction bird surveys and work windows and through avoiding entrapment. However, if threatened or endangered plant or animal species are discovered during construction of the Project’s build alternatives, consultation with the appropriate agencies would be initiated.

#### *Permanent Impacts*

There are no suitable or critical habitats of the threatened or endangered species identified in Tables 2.3-2 and 2.3-3. There are also no aquatic habitats present within the BSA and the proposed build alternatives take place mostly within areas that are paved or already disturbed. Therefore, neither build alternative would have direct or permanent impacts to threatened or endangered species or their habitats.

### **No-Build Alternative**

#### *Temporary Construction Impacts and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and POC would remain and seismic retrofitting would not occur. There would be no ground disturbance or vegetation or tree removal. Therefore, there would be no impact to any threatened or endangered species.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features listed previously and included in Appendix B, no other AMMs would be required to reduce impacts to animal species.

## 2.3.6 INVASIVE SPECIES

### REGULATORY SETTING

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed Project.

### AFFECTED ENVIRONMENT

Vegetation along some portions of the roadway is the result of landscaping with both native and non-native species, while other disturbed portions have been colonized by pioneer species, both native and non-native. Some of these have the potential to be invasive. The introduction and spread of invasive plants adversely affect natural plant communities by displacing native plant species that provide shelter and forage for wildlife species. The infestation of the BSA by these species primarily occurs along the roadway and within the channel banks. Through site visits and database searches, no invasive plant species have been identified in the BSA.

### ENVIRONMENTAL CONSEQUENCES

#### Build Alternatives

##### *Temporary Construction Impacts*

Both build alternatives are anticipated to have minimal effects on the spread of invasive species within the Project’s BSA. There have not been any invasive species identified within the BSA and the proposed improvements are not expected to result in the colonization of additional species. Caltrans would implement **Project Feature BIO-10**, ensuring that all areas temporarily affected during construction would be revegetated with native species and that invasive species would be controlled to the maximum extent practicable.

##### *Permanent Impacts*

Once construction is completed, both build alternatives would result in the same number of travel lanes on I-580 and local roads and would have minimal potential to spread invasive species. Therefore, neither build alternative would impact the spread of invasive species.

## **No-Build Alternative**

### *Temporary Construction Impacts and Permanent Impacts*

Under the No-Build Alternative, the existing bridge barrier railings and POC would remain and seismic retrofitting would not occur. There would be no ground disturbance or physical changes within the BSA. Therefore, there would be no impact to the spread of invasive species.

### **AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Aside from the Project Features listed in Appendix B, no other AMMs would be required to reduce impacts to the spread of invasive species.

## 2.4 CUMULATIVE IMPACTS

### REGULATORY SETTING

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR) Section 1508.7.

### RESOURCES ANALYZED

*The Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process Guidance for Preparers of Cumulative Impact Analyses* (FHWA 2003) describes how the cumulative impact analysis should focus on resources significantly impacted by the proposed project, or resources currently in poor or declining health or at risk.

If a proposed Project would not result in a direct or indirect adverse effect on a resource, then it would not contribute to a cumulative impact on that resource and does not need to be further evaluated. The following resources were determined not to have a resulting adverse effect from the proposed Project: recreational facilities, population and housing, land use planning, mineral resources, energy, cultural resources, air quality, agriculture and forest resources, or wildfires. Therefore, these resources would not contribute to a cumulative impact. Through the evaluation in the preceding sections of Chapter 2 of this Initial Study/Environmental Assessment (IS/EA), the proposed Project was also determined to result in less than significant impacts with the incorporation of Project Features and avoidance, minimization, and/or mitigation

measures (AMMs), and therefore, would not result in cumulative impacts on the following resources: aesthetics, biological resources, geology and soils, noise, hydrology and water quality, utilities and service systems, public services, hazardous wastes and hazardous materials, greenhouse gases (GHGs), and transportation.

Certain resources are not vulnerable to incremental/cumulative impacts. Examples include geologic and seismic hazards related to future developments in the project Resource Study Area. Geologic and seismic hazards are site specific and relate to the type of building or structure proposed and soil composition and slope of a given site. None of the other planned projects in the vicinity would interact with the proposed improvements under either build alternative that would increase the risk of geologic or seismic hazards. In fact, seismic hazards would be reduced through the proposed seismic retrofits at the Broadway-Richmond Boulevard UC and the Fruitvale Avenue UC. Therefore, no further cumulative impact analysis is warranted.

Through the analysis of each resource area provided throughout Chapter 2, it has been determined that no resources would be significantly impacted by the proposed Project. Therefore, there are no resources that meet the criteria of requiring a cumulative impact analysis. However, given that I-580 is an Officially Designated State Scenic Highway for the entirety of the Project limits and the Project would result in permanent visual impacts, this section will assess the cumulative impacts related to visual/aesthetic resources.

## **RESOURCE STUDY AREAS**

The resource study areas in the context of the cumulative analysis are different than the “study areas,” defined in Chapter 2 of this IS/EA for analyzing the direct and indirect impacts to each resource area. This difference is because a cumulative impact analysis reviews the resources in the project vicinity as a whole, rather than merely the potential range of direct and indirect impacts from the project.

As mentioned previously, the resource area selected for this analysis is visual/aesthetics. The resource study area encompasses the State Scenic Highway eligible portions of I-580.

Table 2.4-1 lists the current and foreseeable Caltrans projects along I-580 in the vicinity of this Project. These projects are considered along with past projects, build alternatives, and No-Build Alternative in this analysis.



**Table 2.4-1 List of Current or Foreseeable Caltrans Projects along I-580**

<b>Project EA</b>	<b>Post miles</b>	<b>Project Name</b>	<b>Project Description</b>	<b>Status</b>
04-0K530	PM 30.36/46. 50	Install Ramp Metering	Install or upgrade ramp metering systems, with High Occupancy Vehicle (HOV) bypass lanes where applicable, along I-580 from Strobridge Avenue UC to the I-80/I-580/I-880 junction. The project would install or upgrade ramp metering systems at 41 locations within the project limits. Associated pavement work will include cold plane and overlay of the existing ramp pavement from the mainline to the ramp intersection or limit of State right-of-way at the intersection.	Planning Phase
04-0W200	PM 44.50/44. 50	Bridge Health – Broadway-Richmond Blvd UC	Broadway-Richmond Blvd UC has large alligator cracks and some concrete spalls exposing rebar. The proposed work involves patching deck spalls, methacrylate treatment on the entire bridge deck surface, placing 1-inch thick polyester concrete overlay and removing and replacing joint seals.	Project Scoping Phase
04-0W510	PM 43.48/43. 83	Adeline St UC and Lakeshore Park UC – Bridge Overlay	Adeline Street UC and Lakeshore Park UC are proposed to be overlaid with polyester concrete. The proposed work involves patching deck spalls, methacrylate treatment on the entire bridge deck surface, placing a 1-inch thick polyester concrete overlay, up to 3 ft from face of existing type 1 barrier, removing and replacing joint seals and repairing type 1 barrier.	Project Scoping Phase
04-3W200	PM 32.13/45. 76	I-580 Median Barrier Upgrade	Project proposes to upgrade median concrete barrier and install freeway safety lighting along the median at two locations within those limits.	Project Scoping Phase

**RESOURCE TRENDS/HISTORICAL CONTEXT**

I-580 is an Officially Designated State Scenic Highway from postmile 0.0 to 0.4 and from 34.5 to 45.2. The Bridge Rehabilitation Project limits are from postmile 41.3 to 44.8. The landscape is characterized by commercial and residential properties within the foreground, and the Oakland Hills in the background. The land use within the corridor is primarily urban commercial but also includes areas of urban residential.

**CUMULATIVE IMPACT ANALYSIS**

As discussed in Section 2.1.8, Visual/Aesthetics, the temporary construction impacts of either build alternative would result from various activities including vegetation and tree clearing, construction staging areas, presence of construction equipment and additional construction-related traffic, and potential construction light and glare during nightwork.

During construction, Caltrans would implement proposed Project Features and AMMs to reduce impacts associated with these temporary impacts.

Once construction of either build alternative is complete, Caltrans would restore all areas temporarily disturbed by construction activities through revegetation and tree replanting efforts as outlined in **Project Features AES-2 and AES-3**. However, there would be permanent visual impacts associated with the improvements under each build alternative. The new replacement POC under Build Alternative 1 would result in a visual change for roadway/freeway users and surrounding residents along MacArthur Boulevard and Crescent Street due to the presence of a new structure and removal of trees that currently screen views of I-580 for these residents. While Build Alternative 1 overall would result in moderate-high visual impact and Build Alternative 2 in a moderate visual impact, Caltrans would implement **AMMs AES-1 through AES-3** that call for architectural treatments of the newly retrofitted Fruitvale Avenue UC, replacement bridge barrier railings, and the new replacement POC. After implementation of Project Features and AMMs, the visual impact of Build Alternative 1 would be moderate while Build Alternative 2 would be moderate-low.

The upcoming Caltrans projects identified in Table 2.4-1 overlap with this Project's project limits and may also result in temporary or permanent impacts to visual resources. However, from the project descriptions provided, 04-0K530, 04-0W200, and 04-0W510 appear to primarily address pavement issues, which would be unlikely to result in significant permanent visual impacts to the corridor. 04-3W200 proposes to upgrade the concrete median of I-580 and the installation of lighting at two locations. However, these projects would also implement many of the same or similar Project Features as this Project to reduce temporary visual impacts during construction. After the construction of these projects, views along the corridor should be similar in character and quality to the existing views. As a result, the build alternatives would not have a considerable contribution to a cumulative impact to visual resources.

## **CONCLUSION**

The build alternatives would not have a cumulatively significant impact on visual/aesthetic resources. All potential impacts would be minimized or avoided through the Project Features and AMMs identified in Appendices A and B.

# Chapter 3 California Environmental Quality Act (CEQA) Evaluation

---

The proposed project is a joint project by Caltrans and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## 3.1 CEQA ENVIRONMENTAL CHECKLIST

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular

resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project Features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

## AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>

### a-b) Less than Significant Impact

The Project is located along I-580 at various locations between postmiles (PM) R41.42 and 44.51 in the City of Oakland, Alameda County. I-580 is known locally as the MacArthur Freeway and is an Officially Designated State Scenic Highway for the entirety of the Project limits. Due to its Scenic Highway status, the I-580 highway scenic corridor segment within the Project limits is considered a scenic resource. As described in Section 2.1.8, the Project would result in temporary visual impacts during construction from staging areas, general construction activities, vegetation removal, and presence of construction equipment and vehicles. **Project Features AES-1 through AES-7** would be implemented to address these temporary construction impacts by practicing vegetation preservation to the extent feasible, vegetation replanting, erosion control measures, etc. Vegetation replanting would notably take place in the touchdown ramp areas of the existing POC once it has been demolished.

Once built, Build Alternative 1 is anticipated to be moderate-high as a result of bridge barrier replacement work, seismic retrofits, demolition of the existing POC, and most notably, construction of a new POC structure that would remove a substantial amount of existing landscaping. However, with implementation of **AMMs AES-1 through AES-3**, architectural treatments would be applied to these improvements that would help them blend in with the visual environment. With

implementation of the Project Features and AMMs described, the visual impact of Build Alternative 1 would be lowered from moderate-high to moderate. Build Alternative 2 would also implement **AMMs AES-1 and AES-2** for the seismic retrofit and bridge barrier railings which lowers its visual impact from moderate to moderate-low. Therefore, with implementation of the Project Features and AMMs described, the Project would not substantially degrade the existing visual character or quality of this scenic vista and the impact would be less than significant.

**c) No Impact**

The Project is located in an urbanized area but would not conflict with applicable zoning and other regulations governing scenic quality. The proposed improvements would be consistent with typical views found throughout the I-580 corridor. There would be no impact.

**d) Less than Significant Impact**

The Project, under either build alternative, would not create a permanent, new source of light or glare. Build Alternative 2 includes upgrading the lighting system at the Grand Avenue UC and at crosswalks and intersections nearby for the purposes of increasing pedestrian safety. However, these are upgrades to existing lighting systems. During construction, lighting would likely be used during nightwork for POC demolition, introducing a new source of light in the Project area. However, construction lighting during nightwork would be limited to the immediate vicinity of active work and utilize shielding to avoid light trespass, as outlined in **Project Feature AES-7**. Implementation of this Project Feature would further reduce potential temporary impacts from light and glare. Therefore, impacts from light and glare would be less than significant.



## AGRICULTURE AND FOREST RESOURCES

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

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<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"/>

### a) **No Impact**

There are no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) within the Project area.

**b) No Impact**

There are no parcels under Williamson Act contract within the Project limits.

**c) No Impact**

There are no forest or timberlands within the Project limits.

**d) No Impact**

There are no forest or timberlands within the Project limits.

**e) No Impact**

There are no other changes anticipated to farmland or forest lands.

## AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

### a,b,d) No Impact

The proposed Project is exempt from the requirement to determine conformity per 40 CFR 93.126 (Table 2 – Widening narrow pavements or reconstructing bridges (no additional travel lanes)), therefore an air quality study is not required and there would be no impact to air quality. The Project would not conflict with or obstruct any applicable air quality plans, would not result in a cumulatively considerable net increase of criteria pollutants, or result in other emission that would adversely affect a substantial number of people. However, the Project would still implement **Project Features AIR-1 through AIR-4** to further reduce air quality impacts from construction activities.

### c) Less than Significant Impact

Sensitive receptors include children, elderly, people with asthma, and other members of the population who are at a heightened risk of negative health outcomes from exposure to air pollution. Schools, childcare facilities, hospitals,

nursing homes, and residential communities are locations where sensitive receptors typically occur. Although schools (AIMS College Prep High School, Gan Avraham Preschool) are nearby, the project would not increase emissions of criteria pollutants or mobile source air toxics above existing conditions. Although construction activities would impact nearby sensitive receptors, generation of air emissions would be temporary and limited to the period of construction. In addition, implementation of **Project Features AIR-1 through AIR-4** listed in Appendix B would minimize impacts from emissions during the construction phase. Therefore, the impact would be less than significant.

## BIOLOGICAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 Wildlife 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

### a) Less than Significant Impact

As mentioned in Section 2.3, Biological Resources, literature reviews and database searches were conducted to determine the presence of special-status plant and

*Bridge Rehabilitation Project*

*Initial Study with Negative*

207

*Declaration/Environmental Assessment*

wildlife species with potential to occur with the Project's BSA. 21 wildlife species and 26 plant species were considered to have potential to be present within the BSA. However, due to the lack of suitable habitat present within the highly disturbed and urban BSA, none of these species are expected to be present. Migratory birds may be present within the BSA, but with implementation of **Project Feature BIO-1**, the Project would require preconstruction bird surveys prior to construction, work windows to avoid the nesting season, and non-disturbance buffers if nests are found. In addition, **Project Features BIO-3 and BIO-4** would further reduce the risk of adverse effects to wildlife species through measures aimed at avoiding animal entrapment during construction. Therefore, the impact would be less than significant.

**b-f) No Impact**

The Project's BSA contain little vegetation or suitable habitat, and the vegetation that is present lacks connectivity to natural area. While construction activities would result in some vegetation or tree removal, this would not impact any riparian vegetation or wildlife corridors. To minimize the impacts from vegetation clearing and grubbing and tree removal, Caltrans would implement **Project Feature BIO-8 and AES-3**, both of which would require revegetation of areas disturbed by construction activities with native species to the maximum extent practicable. There are also no wetlands present within the Project's BSA. Caltrans would also implement **Project Feature BIO-7**, which would restrict any construction activities from taking place within a wetland or waterway. There is a waterway, Glen Echo Creek, located adjacent to the Broadway-Richmond Boulevard UC. However, the proposed work at this location would take place on pavement and would be located far enough upland of the creek's culverted headwall. Still, in order to prevent impacts to this waterway, **Project Features BIO-2 and WQ-1** would include the use of temporary BMPs during construction activities. Therefore, there would be no impact to sensitive habitats, wildlife corridors, wetlands, or waterways and would not conflict with local policies or conservation plans.



## CULTURAL RESOURCES

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

Caltrans Professionally Qualified Staff (PQS) reviewed Project information, Caltrans Cultural Resource Database, as-built plans, aerial photographs, and maps. This review was in accordance with the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). In accordance with Stipulation VII.A of this Programmatic Agreement, the Area of Potential Effects (APE) was established in consultation with Caltrans PQS. Caltrans PQS also conducted a Historic Property Survey Report and documented five Category 5 bridges within the APE and no other archaeological or other built resources. Caltrans, pursuant to PA Stipulation IX.A has determined a Finding of No Historic Properties Affected is appropriate for this undertaking because there are no historic properties within the APE and the finding was approved on June 13, 2022. Through consultation with Tribal representatives, no tribal concerns were raised as the proposed work would be limited to existing bridges and paved surfaces.

### a) **No Impact**

Caltrans PQS established an APE and has determined a Finding of No Historic Properties Affected because no historic properties were identified within the APE. As such, this Project would have no impact on historic resources.

**b-c) No Impact**

No human remains or archaeological resources were identified in the Project's APE and no concerns were raised through Tribal coordination efforts. Therefore, there would be no impact on archaeological resources. Caltrans would implement **Project Features CUL-1 and CUL-2** that would halt all construction activities if previously unidentified human remains or cultural materials, respectively, are unearthed during construction until a qualified archaeologist can assess the discovery.

## ENERGY

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

### a-b) No Impact

Both Project build alternatives would not result in temporary or permanent wasteful, inefficient, or unnecessary consumption of energy resources. Construction activities would result in short-term energy consumption from the use of petroleum fuels by off-road construction equipment, and from on-road vehicles used by construction workers to travel to and from the site during construction and to deliver construction materials. With the implementation of **Project Feature GHG-1**, Caltrans would implement construction best management practices including ensuring regular vehicle and equipment maintenance, limiting vehicle idling, recycling nonhazardous wastes, and using solar-powered signal boards, if feasible. The project is not a capacity-increasing transportation project and would not increase use of energy resources. The project would not conflict with state and local plans for renewable energy and energy efficiency. There would be no impact.

## GEOLOGY AND SOILS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<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 waste water disposal systems where sewers are not available for the disposal of waste water?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### a-e) No Impact

The Project is not located within an Alquist-Priolo earthquake fault zone and so would not experience hazards due to fault rupture or further expose the public to

hazards from ground shaking. The Project sites and proposed improvements would also not expose the public to other seismic hazards such as liquefaction or seismically-induced landslides. The Project is not located in areas containing erodible soils, soils or geologic units prone to instability, or soils that are expansive or collapsible. The Project sites also would not be supporting any septic systems as part of this Project. During construction, the Project would implement erosion control measures and Best Management Practices (BMPs) under **Project Feature WQ-1** to further minimize any soil erosion or loss of topsoil. Therefore, there would be no impact.

f) **Less than Significant Impact**

The Project sites do include areas that contain Pleistocene Fan alluvium, a geologic unit that is known to locally contain fossils and is considered paleontologically sensitive. **Project Features PAL-1 and PAL-2** would be implemented to minimize and avoid impacts to any paleontological resources that are found. With implementation of these Project Features, the impact would be less than significant.

## GREENHOUSE GAS EMISSIONS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>

### a) **Less than Significant Impact**

The Project would result in greenhouse gas (GHG) emissions during construction. However, it is anticipated that the Project would not result in an increase in operational GHG emissions. The Project would implement GHG-reduction measures in **Project Feature GHG-1** to reduce temporary construction impacts. Therefore, the impact would be less than significant. Please refer to Section 3.4, Climate Change, for further discussion.

### b) **Less than Significant Impact**

The Project would not conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. With implementation of construction GHG reduction strategies, the impact would be less than significant.



## HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

### a-c) Less than Significant Impact

Prior to construction activities, site investigation work would take place to handle and characterize potential soil contamination levels in the Project limits for any work that would cause notable soil excavation or permanent displacement. There is also a school located within 0.25 miles of the Project, the AIMS College Prep High

School. The proposed POC demolition and bridge barrier replacement work would require that hazardous bridge surveys be conducted under the US EPA's National Emission Standards for Hazardous Air Pollutants to assess the potential presence of metals, asbestos-containing material, lead-based paint, aerially deposited lead (ADL), or other contaminants. POC demolition work would occur adjacent to the school and would even require TCE from the school to demolish the portions of the POC touching the fence to the school's parking lot. The project would incorporate **Project Features HAZ-1 through HAZ-3** as shown in Appendix B, which calls for the preparation of an ADL Work Plan, an asbestos and lead-based paint survey, and a Hazardous Materials Incident Contingency Plan. Caltrans would also provide advanced notice to school prior to construction activities. The Project would not create a hazard to the public or the environment. The impact would be less than significant.

**d-e) No Impact**

The Project does not contain any sites known to contain hazardous materials within the Project area. The Project is also not located within an airport land use plan or within 2 miles of a public airport. There would be no impact.

**f) Less than Significant Impact**

Construction and operation of either of the Project build alternatives would not interfere with any emergency evacuation or response plan. During construction of alternative, there would be necessary lane closures that may pose temporary traffic impacts to emergency services. However, Caltrans would implement **Project Feature TRA-1** to create a TMP in coordination with emergency service providers to provide notice to the public and maintain emergency access during construction. Therefore, the impact would be less than significant.

**g) No Impact**

The Project is not located in areas classified as being very high fire severity zones. The Project would also not require any installation of infrastructures that may exacerbate fire risks or pose ongoing impacts to the environment. The Project would not expose people or structures to effects of wildland fires. There would be no impact.

## HYDROLOGY AND WATER QUALITY

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

### a) Less than Significant Impact

The Project, under both alternatives, would result in disturbed soil area (DSA) that is less than 1.0 acre. As a result, construction activities are not subject to the Construction General Permit (CGP). However, a water pollution control plan

(WPCP) would be prepared to control all potential temporary construction impacts. As part of the WPCP, various temporary construction site best management practices (BMPs) would be included to reduce pollutants both during and after construction to the maximum extent practicable (MEP). BMPs include job site management, concrete waste management, sediment and erosion control measures, storm drain inlet protection, etc. With implementation of these BMPs as outlined in **Project Feature WQ-1** (Appendix B), the impacts on surface and groundwater would be less than significant.

**b,c,e) No Impact**

The amount of DSA as a result of the Project is estimated to be less than 1 acre under either alternative. Once constructed, the amount of new impervious surface is estimated to be minimal at less than 1 acre as well. As a result, post-construction storm water treatment measures are not required. In addition, there are no proposed dewatering activities needed during construction. There is also no temporary alteration or diversion of waterways or drainage patterns proposed during or after construction. Implementation of **Project Feature WQ-1** includes BMPs related to storm drain inlet protection to reduce sediment from entering the storm drainage system. Therefore, there would be no impact to drainage patterns, groundwater supplies or groundwater discharge, and any groundwater management plans.

**d) No Impact**

Most of the Project is not located within base floodplains. However, the Project improvements located around the Grand Avenue UC under Build Alternative 2 are located within a Zone AO base floodplain, which has a flood depth of 1 foot. However, Build Alternative 2's footprint area already consists of mainly impervious surfaces, and the proposed improvements do not include the addition of fill to the base floodplain. As a result, the proposed work is not expected to have any detrimental impact on the base floodplain in this area. Also, the seismic retrofit work at Fruitvale Avenue UC has been identified as being in a Zone X, or moderate, flood hazard zone with a 0.2% annual-chance flood. However, Sausal Creek is located in that area and it has been identified as containing the flooding in that area should it occur. As a result, the Zone X area here is not a base floodplain. Therefore, there would be no impact.

## LAND USE PLANNING

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

### a) No Impact

The Project would not physically divide an established community. The existing POC set to be demolished was constructed to connect the Grand Lake and Adams Point neighborhoods, which were separated by the construction of I-580 in the area. Both build alternatives propose improvements that retain or enhance connectivity between these two neighborhoods, either a new replacement POC under Build Alternative 1 or surface street improvements around the Grand Avenue UC area under Build Alternative 2. Both build alternatives would provide safe conditions for pedestrians and bicyclists than the existing POC and may end up enhancing connectivity between the two. There would be no impact.

### b) No Impact

As discussed in Section 2.1, Human Environment, the Project would not conflict with the Metropolitan Transportation Commission's Plan Bay Area 2050, Alameda County Transportation Commission's Countywide Transportation Plan, the City of Oakland's General Plan, the City of Oakland's Bicycle Plan, and other local city plans. There would be no impact to any land use plans or policies.

## MINERAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

**a) No Impact**

There are no known mineral resources of value within the Project limits.

**b) No Impact**

Loss of availability of any locally-important mineral resources is not anticipated in the proposed Project.

## NOISE

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>

### a-b) Less than Significant Impact

As discussed in Section 2.2.5, Noise, construction noise levels will exceed Caltrans' maximum noise limit (86 decibels [dBA]) at locations 50 feet away from construction activities, mostly for the proposed demolition of the existing POC but also for bridge barrier replacement work and seismic retrofit work at the other UCs. Construction noise is anticipated to exceed ambient noise levels at most locations for POC demolition. Caltrans would implement **Project Feature NOI-1** that would restrict demolition activities to the daytime between 6 AM and 9 PM when feasible. For portions of the POC demolition greater than 75 feet from receptors, demolition would take place at night to minimize impacts to traffic. To ensure noise levels do not exceed the threshold, Caltrans will implement on-site noise controlling and monitoring under **AMM-NOI-1**. Demolition of the portions of the POC near the AIMS College Prep High School will occur outside of school hours, since the noise limit for the interior of schools cannot exceed 52 dBA under the California Streets and Highway Code, Section 216.

For bridge barrier work and seismic retrofit, construction noise levels also appear to exceed 86 dBA at locations closer than 50 feet from construction activities. However, these improvements are anticipated to take place during daytime hours per **Project Feature NOI-1**. However, seismic retrofit of the Fruitvale Avenue UC



appears to be noisier, with this work exceeding 86 dBA at locations as far enough as 300 feet away. Since the Francophone School's Satellite campus is located close to the Fruitvale Avenue UC, Caltrans will implement **AMM-NOI-1** and **AMM-NOI-2**, which recommends the use of CIDH pile driving for seismic retrofit work.

Caltrans would also implement **Project Features NOI-2 through NOI-6** at all project locations that would further minimize temporary noise impacts by conducting public outreach to the surrounding communities of the construction schedule, constructing noise barriers, locating staging areas away from sensitive receptors, and using quieter alternative method or equipment where feasible, etc. These Project Features are listed in Appendix B.

The Project would not add additional travel lanes to local streets or to I-580, so traffic noise levels would remain the same as existing once construction is completed. The noise impacts from this Project are due to temporary construction activities. With implementation of the described Project Features and AMMs, the Project would not expose people residing or working in the Project area to excessive noise levels during construction. The impact would be less than significant.

c) **No Impact**

The Project is not located within the vicinity of an airport land use plan or within 2 miles of a public or private airport or airstrip. There would be no impact.

## POPULATION AND HOUSING

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

### a-b) No Impact

The Project would provide bridge barrier replacements and seismic retrofits of several UC structures within the Project limits as well as demolish an existing POC and replace either with a new POC or surface street improvements in the area. The Project is a non-capacity increasing project and does not introduce new utilities to the area and so would not induce unplanned population growth. The Project would also not result in any property acquisitions or displacement of residents or businesses. There would be no impact.

## PUBLIC SERVICES

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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### a) Less than Significant Impact

The Project would not result in a use that would directly or indirectly induce population and employment growth in the City of Oakland or Alameda County or permanently alter any of these public services. However, during construction of either build alternatives there would be necessary lane closures and detours that may temporarily impact fire protection and police services and student drop-off/pick up activities for schools in the Project area including the AIMS College Prep High School on Grand Avenue and the Francophone Satellite School near the Fruitvale UC. These lane closures and detours may also temporarily impact access to the five parks located in the Project area and other public facilities including the Oakland Public Library's Lakeview branch located south of the Grand Avenue UC. However, these temporary traffic impacts would be reduced through implementation of a TMP, under **Project Feature TRA-1**, to maintain access for emergency services and provide adequate noticing and detours for the community. Demolition of the existing POC would also require a temporary TCE from the school for the portion of the POC adjacent to the school's parking lot. Caltrans would provide advanced notice to the

school prior to demolition activities and the Head of School confirmed that this would not adversely impact school activities. There would be less than significant impact.

## RECREATION

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<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"/>

### a-b) No Impact

The Project would not increase current highway or roadway capacity or induce population and employment growth in the City of Oakland or Alameda County. The Project also does not propose any expansion of recreational facilities and also does not result in any use of public recreation areas. There would be no impact to recreational facilities.

## TRANSPORTATION

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric 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 checked="" type="checkbox"/>	<input type="checkbox"/>

### a-c) No Impact

As mentioned in Section 2.1, Human Environment, the Project would not conflict with any local or regional program, plan, ordinance, or policy addressing transit or bicycle and pedestrian facilities. Both Project build alternatives would actually be consistent with local City of Oakland Pedestrian and Bicycle Plans as well as the City of Oakland Grand Avenue Mobility Plan. The Project would not include the addition of through traffic lanes on existing highways or roadways, so the Project would not conflict with CEQA Guidelines section 15064.3, subdivision (b). The Project would also not substantially increase any hazards due to geometric design features; the Project would improve bicycle and pedestrian facilities through either build alternative. There would be no impact.

### d) Less than Significant Impact

The Project would not result in inadequate emergency access. There are necessary lane closures that would be needed during construction of either build alternative. However, these impacts would be temporary, and Caltrans would implement a TMP under **Project Feature TRA-1** to minimize temporary impacts to emergency access vehicles and services. The impact would be less than significant.

## TRIBAL CULTURAL RESOURCES

<b>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:</b>	<b>Significant and Unavoidable Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Caltrans Office of Cultural Resource Studies (OCRS) initiated coordination with culturally affiliated tribes in the Project area, per the National Historic Preservation Act (NHPA). Caltrans requested a search of the Sacred Land Files (SLF) and a list of culturally affiliated tribes from the Native American Heritage Commission (NAHC) on May 13, 2021. NAHC responded to Caltrans on June 6, 2021 and recommended contacting the Amah Mutsun Tribal Band of Mission San Juan Bautista and the North Valley Yokuts. The following tribal representatives were contacts on July 22, 2021, September 13, 2021, and April 26, 2022:

- Chairperson Ann Marie Sayers, representing the Indian Canyon Mutsun Band of Costanoan
- Chairperson Corina Gould, representing the Confederated Villages of Lisjan
- Chairperson Irene Zwierlein, representing the Amah Mutsun Tribal Band of Mission San Juan Bautista



- Kanyon Sayers Roods, MLD Indian Canyon Mutsun Band of Costanoan
- Chairperson Katherine Perez, representing the Nother Valley Yokuts

Through consultation with Tribal representatives, no tribal concerns would raised as the proposed work would be limited to existing bridges and paved surfaces.

**a-b) No Impact**

The HPSR prepared by Caltrans PQS stated that there are no historic properties located with the APE. In addition, no known tribal cultural resources were identified within the Project sites and APE. Through coordination efforts with Tribal representatives, no concerns have been raised. If the Project changes, OCRS would notify Tribal representatives. Caltrans would implement **Project Features CUL-1 and CUL-2** that would halt all construction activities if previously unidentified human remains or cultural resources are unearthed during construction until a qualified archaeologist can assess the discovery.

## UTILITIES AND SERVICE SYSTEMS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### a) Less than Significant Impact

As discussed in Section 2.1.6, Utilities/Emergency Services, there is an existing electrical pull box located adjacent to a support column of the Broadway-Richmond Boulevard UC, along Piedmont Avenue. This pull box is a Pacific Gas and Electrical (PG&E) owned utility and would need to be temporarily relocated during construction of seismic retrofits at this UC. Caltrans would notify utility owners of the project construction schedule under **Project Feature UTIL-2**. The relocation of utilities in the Project site would not result in access limitations and the Project itself would not directly increase the number of residents in the area. The impact would be less than significant.

**b-e) No Impact**

The Project would not directly increase the number of residents in the area because residential land uses are not proposed. The Project would not increase the demand for additional water or wastewater treatment. The Project also would not generate excess solid waste or interfere with solid waste-related regulations.

## WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### a) Less than Significant Impact

The Project would not result in impairment of an adopted emergency response plan or emergency evacuation plan. However, construction of either build alternative would require lane closures that may pose traffic impacts to emergency services in the area. However, these impacts would be temporary, and Caltrans would implement a TMP under **Project Feature TRA-1** to minimize temporary impacts to emergency access vehicles and services. The impact would be less than significant.

### b-d) No Impact

The Project is not located in areas classified as being very high fire severity zones. The Project would also not require any installation of infrastructures that may exacerbate fire risks or pose ongoing impacts to the environment. The Project would not expose to other risks such as flooding or landslides. There would be no impact.

## MANDATORY FINDINGS OF SIGNIFICANCE

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

### a) Less than Significant Impact

As described in Section 2.2.3, Biological Resources, there are no suitable habitats or special-status plant or animal species expected to occur with the BSA. Migratory birds have to potential to occur within the BSA, but the Project would implement **Project Feature BIO-1** that would require pre-construction bird surveys prior to construction, non-disturbance buffers around any active nests found, and that vegetation removal be avoided during the nesting season. **Project Features BIO-2 through BIO-8** would further reduce impacts to natural communities, plant and animal species, and other biological resources during construction. Section 2.2.5, Cultural Resources, states that there are no historic properties or archaeological resources within the APE prepared for the Project. The Project still includes **Project Features CUL-1 and CUL-2** to halt all construction activities in the event that human

remains or other cultural resources are found until an archaeologist can assess the discovery. In addition, the location of the new replacement POC under Build Alternative 1 is located in an area considered to be paleontologically sensitive. The Project would implement **Project Feature PAL-1** that similarly would halt all construction activities if paleontological resources are found and **Project Feature PAL-2** requiring the preparation of a project-specific Paleontological Mitigation Plan. With implementation of these Project Features found in Appendix B, impacts would be reduced to a less than significant level.

**b) Less than Significant Impact**

The Project proposes improvements to existing transportation infrastructure within the Project area. With incorporation of Project Features and avoidance and minimization measures, construction and operation of the Project under either alternative would not result in a substantial contribution to a cumulatively considerable impact.

**c) Less than Significant Impact**

The Project would not result in significant environmental impacts with implementation of Project Features and several avoidance and minimization measures. The Project Features and AMMs identified in Chapter 1, Chapter 2, and Appendix B would address the potential impacts of the Project that could affect human beings. **Project Features HAZ-1 through HAZ-3** would address potential impacts from hazardous wastes and materials generated during construction, while **Project Features NOI-1 through NOI-6** and **AMMs NOI-1 and NOI-2** would collectively also address the potential noise impacts during construction. While this Project is exempt from determine air quality conformity per 40 CFR 93.123 and so would not result in impacts to air quality, the Project would still incorporate **Project Features AIR-1 through AIR-4** to control dust and other impacts to air quality. With implementation of these Project Features and AMMs included in Appendix B and C, respectively, the Project would not have a substantial direct or indirect impact on the human environment, and impacts would be less than significant.

## **3.2 CLIMATE CHANGE**

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most abundant GHG; while it is a naturally occurring and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO<sub>2</sub> that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO<sub>2</sub>.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, "mitigation" involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. "Adaptation" is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

### **3.2.1 REGULATORY SETTING**

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

#### **Federal**

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.



The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

The federal government has taken steps to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) as amended by the Energy Independence and Security Act (EISA) of 2007; and Corporate Average Fuel Economy (CAFE) Standards. This act established fuel economy standards for on-road motor vehicles sold in the United States. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces the CAFE standards based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation’s energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014).

U.S. EPA published a final rulemaking on December 30, 2021, that raised federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, increasing in stringency each year. This rulemaking revised lower emissions standards that had been previously established for model years 2021 through 2026 in the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part Two in June 2020. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050 (U.S. EPA 2021a).

## **State**

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California’s GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below

year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California’s transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor’s 2030 and 2050 GHG reduction goals.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State’s long-range transportation plan to identify strategies to address California’s climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e). [GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO<sub>2</sub> is the most important

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*

GHG, so amounts of other gases are expressed relative to CO<sub>2</sub>, using a metric called “carbon dioxide equivalent,” or CO<sub>2</sub>e. The global warming potential of CO<sub>2</sub> is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO<sub>2</sub>.] Finally, it requires the Natural Resources Agency to update the state’s climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared “it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state’s greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled, to promote the state’s goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California’s climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

### **3.2.2 ENVIRONMENTAL SETTING**

The proposed project is in an urban area of Alameda County within the City of Oakland, along I-580 and including a well-developed road and street network consisting of major

arterial roads such as MacArthur Boulevard and Grand Avenue. I-580 is a major east-west commuter highway traversing Alameda County, running from US 101 in Marin County all the way to I-5 in San Joaquin County. The Project area is a transportation corridor surrounded by land uses that are built out, consisting of mainly residential and commercial land uses with medium to high density. The portion of I-580 in the Project limits is primarily an eight-lane divided freeway that is heavily used during peak hours.

Within the Project limits there are various bicycle and pedestrian facilities located along local roads. Webster Street features a Class 3 bike lane and is considered a neighborhood bike route, linking bicyclists from 51st Street in north Oakland to Broadway Avenue. Broadway Avenue and Piedmont Avenue both support Class 2 bike lanes. Richmond Boulevard does not include a designated bike lane. The Project area at Fruitvale Avenue includes one Class 2 bike lane along the Fruitvale Avenue UC. There are no other bicycle facilities present along adjacent local streets in this area. On Grand Avenue, bicycle facilities include a buffered Class 2 bike lane. Additionally, Class 3 bicycle lanes occur within the Grand Lake neighborhood along Santa Clara Avenue between Grand Avenue and MacArthur Boulevard and along MacArthur Boulevard between Grand Avenue and Adams Street. In general, the Project area is surrounded by pedestrian facilities. The Webster Street, Broadway-Richmond Boulevard, Grand Avenue, and Fruitvale Avenue UCs all feature sidewalks.

There are also public transportation alternatives within the Project area. AC Transit bus service operates along arterial roads, including along Broadway Avenue, Fruitvale Avenue, Grand Avenue, MacArthur Boulevard, and Santa Clara Avenue.

The Metropolitan Transportation Commission's Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS), also known as Plan Bay Area 2050, guides transportation and housing development in Alameda County and the larger San Francisco Bay Area. The City of Oakland's Equitable Climate Action Plan addresses GHGs and air pollution in the Project area.

## **GHG Inventories**

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

### ***NATIONAL GHG INVENTORY***

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United

*Bridge Rehabilitation Project*

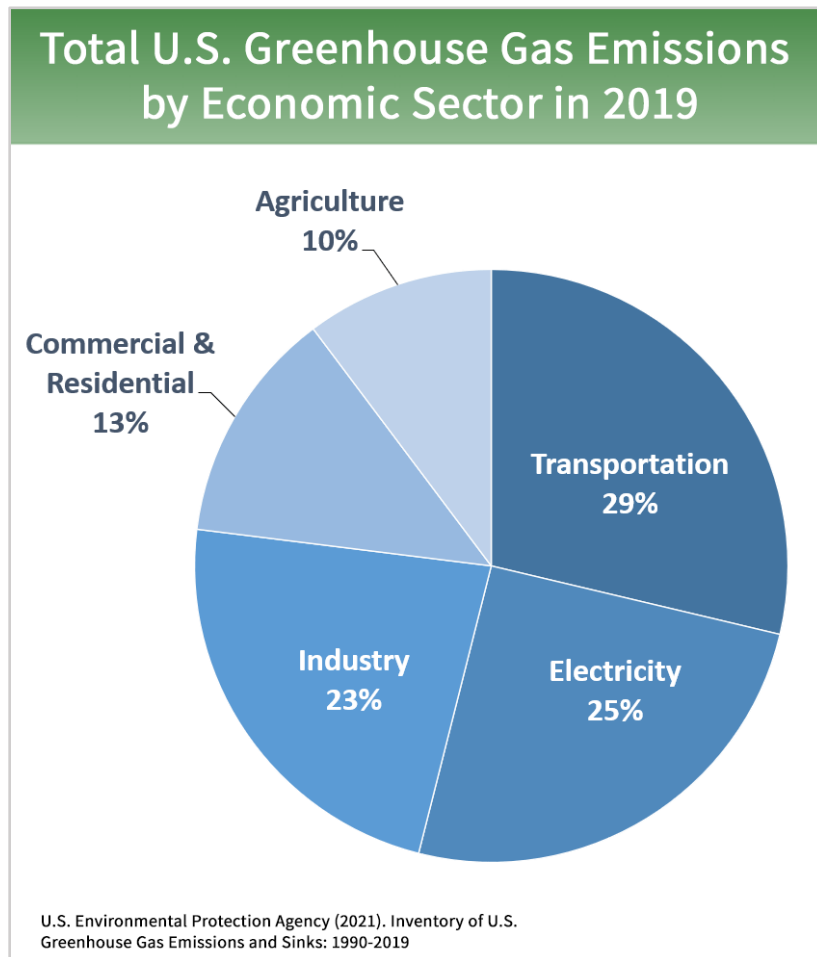
*Initial Study with Negative*

239

*Declaration/Environmental Assessment*

States. The 1990-2019 inventory found that overall GHG emissions were 6,558 million metric tons (MMT) in 2019, down 1.7 percent from 2018 but up 1.8% from 1990 levels. Of these, 80 percent were CO<sub>2</sub>, 10 percent were CH<sub>4</sub>, and 7 percent were N<sub>2</sub>O; the balance consisted of fluorinated gases. CO<sub>2</sub> emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. As shown in Figure 3.3-1, the transportation sector accounted for 29 percent of U.S. GHG emissions in 2019 (U.S. EPA 2021b, 2021c).

**Figure 3.2-1. U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021d)**

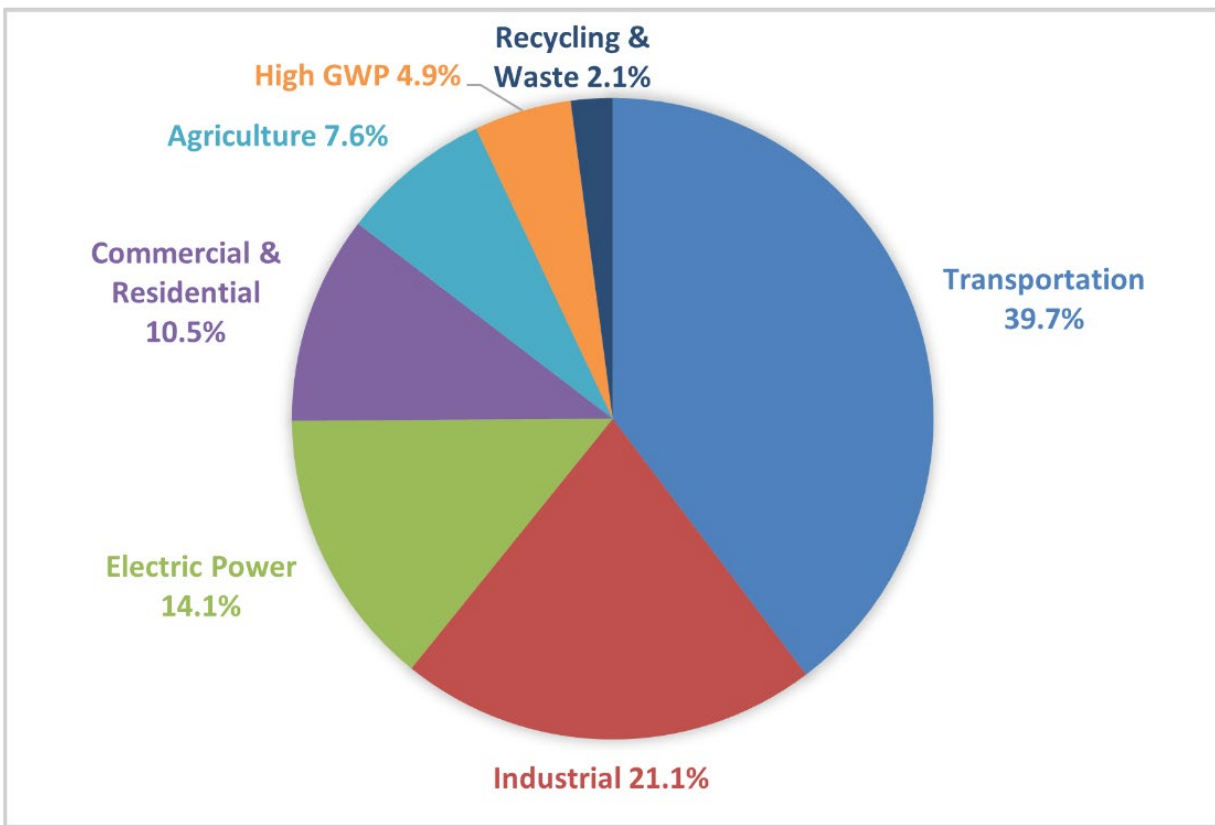


**STATE GHG INVENTORY**

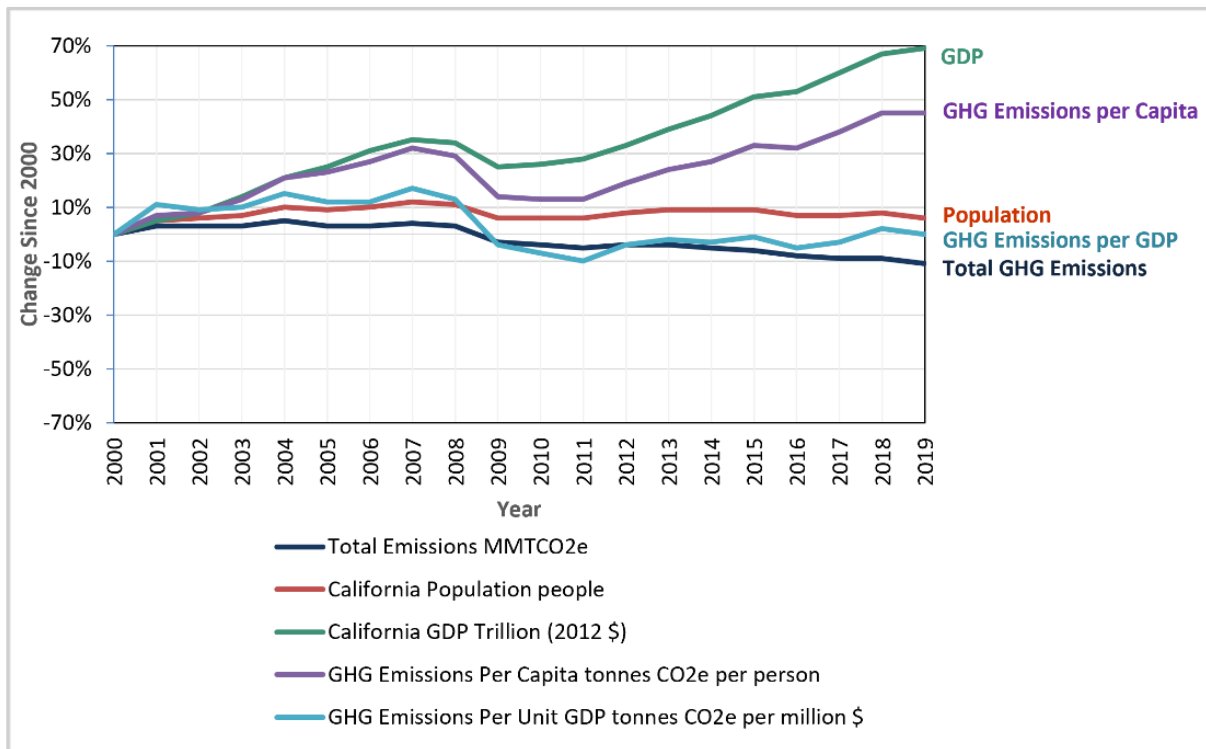
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in

meeting its GHG reduction goals. The 2021 edition of the GHG emissions inventory reported emissions trends from 2000 to 2019. It found total California emissions were 418.2 MMTCO<sub>2</sub>e in 2019, a reduction of 7.2 MMTCO<sub>2</sub>e since 2018 and almost 13 MMTCO<sub>2</sub>e below the statewide 2020 limit of 431 MMTCO<sub>2</sub>e. The transportation sector (including intrastate aviation and off road sources) was responsible for about 40 percent of direct GHG emissions, a 3.5 MMTCO<sub>2</sub>e decrease from 2018 (Figure 3.3-2). Overall statewide GHG emissions declined from 2000 to 2019 despite growth in population and state economic output (Figure 3.3-3) (ARB 2021a).

**Figure 3.2-2. California 2019 Greenhouse Gas Emissions by Economic Sector**  
(Source: ARB 2021a)



**Figure 3.2-3. Change in California GDP, Population, and GHG Emissions since 2000 (Source: ARB 2021a)**



AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California’s 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

**Regional Plans**

ARB sets regional GHG reduction targets for California’s 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for the Metropolitan Transportation Commission (MTC). The regional reduction target for MTC is 19 percent by 2035 (ARB 2021b).



**Table 3.2-1. Regional and Local Greenhouse Gas Reduction Plans**

Title	GHG Reduction Policies or Strategies
Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) - Plan Bay Area 2050 (adopted October 2021)	<ul style="list-style-type: none"> <li>• Expand commute trip reduction programs at major employers</li> <li>• Expand clean vehicle initiatives</li> <li>• Expand transportation demand management initiatives</li> <li>• Build a Complete Streets network</li> <li>• Advance regional Vision Zero policy through street design and reduced speeds</li> <li>• Enhance local transit frequency, capacity, and reliability</li> <li>• Expand and modernize the regional rail network</li> <li>• Build an integrated regional express lanes and express bus network</li> </ul>
City of Oakland - 2030 Equitable Climate Action Plan [ECAP] (adopted in Jul 2020)	<ul style="list-style-type: none"> <li>• Shift to 100% carbon-free energy</li> <li>• Eliminate fossil fuels from building heating systems</li> <li>• Improve building insulation and windows</li> <li>• Significantly shift people away from private auto trips</li> <li>• Accelerate the electrification of vehicles</li> </ul>

**PROJECT ANALYSIS**

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project’s contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512). In assessing cumulative impacts, it must be determined if a project’s

incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

### **Operational Emissions**

The purpose of the proposed Project is to restore and preserve the structural integrity of the existing undercrossings and pedestrian overcrossings (POCs) in conformity with current state and federal highway design standards, to improve the condition of these assets, and to maintain connectivity between the communities in these areas. The Project would not result in increased vehicle capacity of either I-580 or surrounding local roadways. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on I-580 or local roads within the City of Oakland, no increase in vehicle miles traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

### **Construction Emissions**

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. Use of long-life pavement, improved traffic management plans, and changes in materials, can also help offset emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Caltrans prepared a Construction Greenhouse Gas (GHG) Analysis (Caltrans 2022c) for the Project. The results of the GHG emissions analysis are shown below in Table 3.3-2. Each type of GHG is converted to CO<sub>2</sub>e, or carbon dioxide equivalent, by multiplying by their global warming potential (GWP). Specifically, GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO<sub>2</sub>). This allows for comparisons of the global warming impacts of different gases. The construction-related GHG emissions were calculated using the Road Construction Emissions Model version 8.1.0, provided by the Sacramento Air Quality Management District. Construction emissions would total approximately 1,414.71 tons for Build Alternative 1 and 1,184.97 for Build Alternative 2.

**Table 3.2-2. Summary of Construction-related GHG Emissions**

<b>Build Alternatives</b>	<b>CO<sub>2</sub> (tons)</b>	<b>CH<sub>4</sub> (tons)</b>	<b>N<sub>2</sub>O (tons)</b>	<b>Total CO<sub>2</sub>e (metric tons)</b>
<b>Build Alternative 1</b>	1,541.68	0.32	0.03	<b>1,414.71</b>
<b>Build Alternative 2</b>	1,286.74	0.26	0.05	<b>1,184.97</b>

Notes:

CH<sub>4</sub> = methane

CO<sub>2</sub> = carbon dioxide

CO<sub>2</sub>e (MT) = carbon dioxide equivalent (metric tons)

N<sub>2</sub>O = nitrous oxide

All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7-1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions. Some construction best management practices (BMPs) that would be implemented include providing regular vehicle and equipment maintenance, limiting idling of vehicles and equipment at the job site, recycling nonhazardous waste and excess material, and using solar-powered signal boards if feasible.

### **3.2.3 CEQA CONCLUSION**

While the proposed Project would result in GHG emissions during construction, it is anticipated that the project would not result in any increase in operational GHG emissions. The proposed Project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG reduction measures, the impact would be less than significant. Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

### **GREENHOUSE GAS REDUCTION STRATEGIES**

#### **Statewide Efforts**

In response to AB 32, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors, to take California into a

sustainable, low-carbon and cleaner future, while maintaining a robust economy (ARB 2022).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy Draft* for public comment in October 2021.

### **Caltrans Activities**

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

## **CLIMATE ACTION PLAN FOR TRANSPORTATION INVESTMENTS**

*The California Action Plan for Transportation Infrastructure (CAPTI)* builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

### **CALIFORNIA TRANSPORTATION PLAN**

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2022).

### **CALTRANS STRATEGIC PLAN**

The *Caltrans 2020–2024 Strategic Plan* includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021).

### **CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES**

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a Department policy to ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions. The report documents and evaluates current Caltrans procedures and activities that track and reduce GHG emissions and identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Departmental and State goals.

Caltrans Director's Policy 37 (DP-37) Complete Streets (insert date) established a Department policy that recognizes that walking, biking, transit, and passenger rail are integral to our vision of delivering a brighter future for all through a world-class transportation network. Additionally, Caltrans recognizes that streets are not only used for transportation but are also valuable community spaces. Accordingly, in locations with current and/or future pedestrian, bicycle, or transit needs, all transportation projects funded or overseen by Caltrans will provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved.

### **Project-Level GHG Reduction Strategies**

The following measures would also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

Construction contractors would comply with Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Some construction best management practices (BMPs) that would be implemented, as part of **Project Feature GHG-1**, include providing regular vehicle and equipment maintenance, limiting idling of vehicles and equipment at the job site, recycling nonhazardous waste and excess material, and using solar-powered signal boards if feasible. As outlined in Appendix B, the project would also implement **Project Features AIR-1 through AIR-4** to reduce construction-related emissions. **Project Features AES-1 through AES-3** requires Caltrans to minimize vegetation removal and engage in replacement tree and vegetation planting. Likewise, **Project Feature BIO-8** also requires vegetation replanting with native species. Project Features are included in Appendix B while AMMs are included in Appendix B.

### **ADAPTATION**

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

## **Federal Efforts**

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.”

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (U.S. DOT 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

## **State Efforts**

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

*California’s Fourth Climate Change Assessment* (Fourth Assessment) (2018) is the state’s effort to “translate the state of climate science into useful information for action.” It provides information that will help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state’s people, infrastructure, natural systems, working lands, and waters. The State’s approach recognizes that the consequences of climate change occur at the intersections of people, nature, and infrastructure. The Fourth Assessment reports that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience a 2.7 to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures, with impacts on agriculture, energy demand, natural systems, and public health; a two-thirds decline in water supply from snowpack and water shortages that will impact agricultural production; a 77% increase in average area burned by wildfire, with consequences for forest health and communities; and large-scale erosion of up to 67% of Southern California beaches and inundation of billions of dollars’ worth of residential and commercial buildings due to sea level rise (State of California 2018).



Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

In 2008, then-governor Arnold Schwarzenegger recognized the need when he issued EO S-13-08, focused on sea level rise. Technical reports on the latest sea level rise science were first published in 2010 and updated in 2013 and 2017. The 2017 projections of sea level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018. This EO also gave rise to the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan), which addressed the full range of climate change impacts and recommended adaptation strategies. The Safeguarding California Plan was updated in 2018 and again in 2021 as the *California Climate Adaptation Strategy*, incorporating key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio*, and the CAPTI (described above). Priorities in the 2021 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, nature-based climate solutions, use of best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2021).

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change in addition to sea level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group to help actors throughout the state address the findings of California's Fourth Climate Change Assessment. It released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*, in 2018. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts (Climate Change Infrastructure Working Group 2018).

## **Caltrans Adaptation Efforts**

### ***CALTRANS VULNERABILITY ASSESSMENTS***

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

### **Project Adaptation Analysis**

#### ***SEA LEVEL RISE***

The proposed Project is outside the coastal zone and not in an area subject to sea level rise. Accordingly, direct impacts to transportation facilities due to projected sea level rise are not expected.

#### ***FLOODPLAINS***

Most of the Project is not located within base floodplains. However, the Project improvements located around the Grand Avenue UC under Build Alternative 2 are located within a Zone AO base floodplain, which has a flood depth of 1 foot. However, Build Alternative 2's footprint area already consists of mainly impervious surfaces, and the proposed improvements do not include the addition of fill to the base floodplain. As a result, the proposed work is not expected to have any detrimental impact on the base floodplain in this area. The seismic retrofit work at Fruitvale Avenue UC has been identified as being in a Zone X, or moderate, flood hazard zone with a 0.2% annual-chance flood. However, Sausal Creek is located in that area and it has been identified as containing the flooding in that area should it occur. As a result, the Zone X area here is not a base floodplain. Therefore, the Project improvements are not likely to be affected by future changes in storm precipitation, and the risk of interrupting traffic flow or emergency vehicles or access on I-580 or local roads is low.

#### ***WILDFIRE***

The project is not located within a very high fire hazard severity zone. The proposed Project is not likely to be subject to effects of wildfire that could occur under climate change.

## ***TEMPERATURE***

The Caltrans District 4 Climate Change Vulnerability Assessment does not indicate temperature changes during the project's design life that would require adaptive changes in pavement design or maintenance practices.

# Chapter 4 Agency Coordination and Public Involvement

---

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and Project Development Team (PDT) meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

## 4.1 NATIVE AMERICAN TRIBAL CONSULTATION

Caltrans contacted Native American Heritage Commission (NAHC) on May 13, 2021 requesting a Sacred Lands File search of the proposed project location and a list of culturally affiliated tribes. NAHC responded on June 6, 2021, with a contact list of interested Native American groups and individuals and positive results for the Sacred Lands File records search. Formal notification under Section 106 and Assembly Bill (AB) 52 began with letters sent on July 22, 2021, September 13, 2021, and April 6, 2022 to the following contacts: Chairperson Ann Marie Sayers of the Indian Canyon Mutsun Band of Costanoan, Chairperson Corina Gould of the Confederated Villages of Lisjan, Chairperson Irene Zwierlein of the Ama Mutsun Tribal Band of Mission San Juan Bautista, Kanyon Sayers Roods of the Indian Canyon Mutsun Band of Costanoan, and Chairperson Katherina Perez of the North Valley Yokuts.

On May 18, 2022, Chairperson Corrina Gould, representative of the Confederated Villages of Lisjan, responded with interest to consult on the project. A meeting was held with Chairperson Gould and Caltrans Office of Cultural Resources via Zoom on June 10, 2022 to discuss the project locations and work footprints. No tribal concerns were raised as proposed work would be limited to the bridges and existing paved surfaces and so consultation was concluded with the Tribe that day. Should the design team change workplans, the Tribe would be notified of any changes. No other responses were received from the other Tribal contacts.

## 4.2 LOCAL AGENCY COORDINATION

In order to increase cooperation with local agency partners and the community as well as gather input on the proposed Project, Caltrans initiated early coordination with City of

Oakland staff. Caltrans provided City of Oakland staff an initial overview of the Project in a meeting on August 17, 2021. The purpose of the meeting was to engage in a partnership with the City to increase community engagement efforts to inform development of project build alternatives that would be context and community-sensitive. Caltrans provided a presentation on the Project to City staff and answered any questions. City staff provided Caltrans with a list of City Bicycle and Pedestrian Branch contacts as well as community organizations. Through subsequent coordination meetings, Caltrans and the City of Oakland further developed Build Alternative 2 and presented at two public information meetings.

### **4.3 PUBLIC INFORMATION MEETINGS**

Caltrans partnered with two local neighborhood council groups to hold two virtual public informational meetings for the Project in early 2022, one with the Grand Lake Neighborhood Council meeting and the Adams Point Neighborhood Council meeting. The purpose of these information meetings was to introduce the public to the proposed Project, gather community input on the proposed alternatives, and provide an opportunity for the community to ask questions about the Project. Following circulation of the Draft Environmental Document (DED), another public meeting will be held by Caltrans during the public comment period. More detailed information about these meetings are provided below.

**Grand Lake Neighborhood Council Meeting** - This live virtual public information meeting was held for the proposed Bridge Rehabilitation Project on **February 16, 2022** from 7:00 – 8:30 PM. To notify the public of the virtual Grand Lake Neighborhood Council and public information meeting, Caltrans sent mailers to residents along postal routes within the Project area using the U.S. Postal Service’s Every Door Direct tool and should have reached mailboxes by February 8, 2022. Custom mailers were also sent directly to Temple Beth Abraham and the AIMS College Prep High School, both of which are within the project area. Mailers contained a link to access the virtual meeting. Another method used to notify the public about the meeting was through the Grand Lake Neighborhood Council posting on their Facebook group (<https://www.facebook.com/grandlakeneighbors/>) in advance of the meeting.

The Grand Lake Neighborhood Council meeting started with introductions from the Neighborhood Councilmembers and certain individuals from the community wishing to provide updates. After the normal agenda items, Caltrans had the remainder of the meeting (7:15 – 8:30 pm) to present the project. Caltrans staff started by introducing themselves and proceeded to provide a project overview that explained what the meeting hoped to accomplish. Caltrans gave a slideshow presentation that was broadcast by screensharing to attendees. The presentation covered a general overview of the project, discussed the two build alternatives, and discussed the environmental and community considerations to be assessed in the environmental document. A live question and answer (Q&A) session followed the presentation and Caltrans received

approximately 33 questions or comments submitted by the public. A majority of the questions were answered. The City of Oakland also helped with the presentation and Q&A session. Approximately 12 people attended the virtual Grand Lake Neighborhood Council meeting and public information meeting.

From the Q&A session, there did not seem to be overwhelming opposition to either build alternative. There were no comments or questions related to the proposed bridge barrier or seismic retrofit work. There did not seem to be opposition or concern regarding demolition of the existing POC. Regarding the two build alternatives that would follow demolition of the POC, there was more interest and questions related to Build Alternative 2 and its protected bike lanes and traffic calming features than Build Alternative 1. General concerns brought up by the community were related to safety issues and crime around the Lake Park Avenue and Grand Avenue areas.

**Adams Point Neighborhood Council Meeting** - This live virtual public information meeting was held for the proposed Bridge Rehabilitation Project on **March 10, 2022** from 6:30 – 8:00 PM. To notify the public of the virtual Adams Point Neighborhood Council and public information meeting, Caltrans sent mailers to residents along postal routes within the Project area using the U.S. Postal Service's Every Door Direct tool and should have reached mailboxes by March 3, 2022. Custom mailers were also sent directly to Temple Beth Abraham and the AIMS College Prep High School, both of which are within the project area. Mailers contained the link to access the virtual meeting. Another method used to notify the public about the meeting was through the Adams Point Neighborhood Council posting on their Facebook group (<https://www.facebook.com/adamspoint/>) in advance of the meeting.

This public information meeting was an agenda item for the Adams Point Neighborhood Council meeting. The meeting started with introductions from the Neighborhood Councilmembers and proceeded with their normal meeting agenda. After these agenda items, Caltrans had the remainder of the meeting (7:30 – 8:00 pm) to present the project. Caltrans staff started by introducing themselves and proceeded to provide a project overview that explained what the meeting hoped to accomplish. Caltrans gave a PowerPoint presentation that was broadcast by screensharing to attendees. The presentation covered a general overview of the project, discussed the two build alternatives, and discussed the environmental and community considerations to be assessed in the environmental document. A live Q&A session followed the presentation, unfortunately, the Q&A session had to end early due to there not being enough time. Guests were encouraged to enter their questions into the chat where the team could save a copy of all questions and follow up afterwards. The City of Oakland also helped with the presentation and Q&A session. Approximately 38 people attended the Adams Point Neighborhood Council meeting and public information meeting.

From the Q&A session, there were no comments or questions related to the proposed bridge barrier or seismic retrofit work and no opposition to demolition of the existing POC. However, one community member did express that they currently use the existing *Bridge Rehabilitation Project Initial Study with Negative Declaration/Environmental Assessment*

POC as a way to avoid the congestion and noise along Grand Avenue. Regarding the two build alternatives that would follow demolition of the POC, Build Alternative 1 faced some opposition. One comment was how the existing POC has low usage and so the new location of the POC may face even lower usage. Another community member was concerned that the new POC may cause issues to drop-off areas/parking in front of Temple Beth Abraham. Build Alternative 2 seemed to have more support, with comments ranging from liking the improved lighting under the Grand Avenue UC to liking the traffic calming features that may help with current speeding issues.

#### **4.4 PUBLIC INVOLVEMENT PROCESS FOR THE DED**

Prior to initiating the public review period, Caltrans published a notice of the draft environmental document's (DED's) availability in two local newspapers and on the Caltrans website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>). In addition, the notice was distributed through mailers to the local community and businesses within the immediate project area in early September 2022. The public comment period began once the DED was circulated to the public on September 5, 2022, and will last for 30 days, ending on October 5, 2022. A virtual public meeting will be held during the public comment period on September 21, 2022.

After the public comment period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the effect on the environment. Under the California Environmental Quality Act (CEQA), if no unmitigable significant adverse impacts are identified, Caltrans will prepare a Negative Declaration (ND) or Mitigated ND. Similarly, if Caltrans, as assigned by the Federal Highway Administration (FHWA), determines the National Environmental Policy Act (NEPA) action does not significantly impact the environment, Caltrans will issue a Finding of No Significant Impact (FONSI).

A Notice of Completion was submitted to the State Clearinghouse at the beginning of the public comment period on September 5, 2022. The project was then assigned a State Clearinghouse number. The State Clearinghouse will subsequently distribute copies of the DED to agencies for comments.



## Chapter 5 List of Preparers

The following Caltrans staff and consultants contributed to the preparation and review of this IS/EA and are included below in Table 5.1.

**Table 5.1-1. List of Preparers and Reviewers**

Agency/Company	Name	Role
AECOM	Broden Farazmand	Landscape Architect
Caltrans	Helen Blackmore	Branch Chief, Architectural History
Caltrans	Vince Bonner	Design Senior, Design Alameda County
Caltrans	Jiangfan Chen	Transportation Engineer, Water Quality
Caltrans	Bryan Chew	Utilities Engineer
Caltrans	Benjamin Choy	Transportation Engineer, Design Alameda County
Caltrans	Gregory Currey	Branch Chief, Pedestrian and Bicycle Branch
Caltrans	Philip Dinh	Office of Landscape Architecture
Caltrans	Cody Ericksen	Environmental Scientist, Alameda and Contra Costa, Environmental Analysis
Caltrans	Jake Freedman	Associate Transportation Planner, Pedestrian and Bicycle Branch
Caltrans	Haleh Hakimi	Project Engineer, Design Alameda County
Caltrans	Nick Horng	Assistant Project Manager, Project Management
Caltrans	Kevin Krewson	Office Chief, Office of Environmental Engineering
Caltrans	Khai Leong	Office Chief, Office of Hydraulic Engineering
Caltrans	Guang-Ru Li	Branch Chief, Alameda County, Office of Hydraulic Engineering
Caltrans	Lydia Mac	Branch Chief, Office of Landscape Architecture
Caltrans	Shilpa Mareddy	Branch Chief, Air and Noise
Caltrans	David Mars	Associate Right-of-way Agent
Caltrans	Radhika Mothkuri	Transportation Engineer, Air and Noise
Caltrans	Emmanuel Okereke	Project Manager, Project Management
Caltrans	Mojgan Osooli	Branch Chief, Office of Water Quality
Caltrans	Charles Palmer	Associate Environmental Planner (Architectural History)

<b>Agency/Company</b>	<b>Name</b>	<b>Role</b>
Caltrans	Tim Pokrywka	Office Chief, Geotechnical Design
Caltrans	Wahida Rashid	Branch Chief, Alameda and Contra Costa, Environmental Analysis
Caltrans	Matthew Rechs	Branch Chief, Office of Biological Science and Permits
Caltrans	Christopher Risen	Senior Engineering Geologist
Caltrans	Alvin Rosa-Figueroa	Associate Environmental Planner (Archaeology)
Caltrans	Kathryn Rose	Branch Chief, Archaeology
Caltrans	Mahady Sarwary	Associate Environmental Planner, Environmental Program Project Management
Caltrans	Eric Urmeneta	Senior Bridge Engineer, Bridge Construction
Caltrans	Gloria Vo	Transportation Engineer, Water Quality
Caltrans	Scott Williams	Office Chief, Environmental Analysis
Caltrans	Chris Wilson	Branch Chief, Hazardous Waste
Caltrans	Brian Wolcott	Transportation Engineer, Hydraulic Engineering
City of Oakland	Joe DeVries	Director of Interdepartmental Operations
City of Oakland	Jason Patton	Bicycle & Pedestrian Program Supervisor
City of Oakland	David Pené	Assistant Engineer, Bicycle and Pedestrian Program
Kleinfelder	Cherish Cartagena	Biologist
Kleinfelder	Meera Velu	Associate Environmental Planner

## **Chapter 6 Distribution List**

---

### **Federal Agencies**

U.S. Fish and Wildlife Service (USFWS)  
2800 Cottage Way W-2605  
Sacramento, CA 95825

U.S. Army Corps of Engineers (USACE)  
450 Golden Gate Ave, 4th Floor  
San Francisco, CA 94102

National Marine Fisheries Services (NMFS)  
777 Sonoma Avenue Room 325  
Santa Rosa, CA 95404

### **State Agencies**

California Air Resources Board (CARB)  
1001 I Street, Suite 2828  
P.O. Box 2815  
Sacramento, CA 95814

California Department of Conservation  
801 K Street, MS 24-01  
Sacramento, CA 95814  
California Department of Fish & Wildlife (CDFW), Region 3  
2825 Cordelia Road, Suite 100  
Fairfield, CA 94534

California Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, CA 95812-0806

California Native American Heritage Commission (NAHC)  
1550 Harbor Blvd, Suite 100  
West Sacramento, CA 95691

California Natural Resources Agency  
1416 9th Street, Suite 1311  
Sacramento, CA 958114

California Transportation Commission  
1120 N Street  
Sacramento, CA 95814

*Bridge Rehabilitation Project  
Initial Study with Negative  
Declaration/Environmental Assessment*

Office of Planning and Research  
P.O. Box 3044  
Sacramento, CA 95812-3044

San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

State Clearinghouse, Executive Officer  
1400 Tenth Street, Room 156  
P.O. Box 3044  
Sacramento, CA 95812

State Water Resources Control Board Water Quality Division  
1001 I Street  
Sacramento, CA 95814

### **Regional and Local Agencies**

Alameda-Contra Costa Transit District (AC Transit)  
1600 Franklin Street  
Oakland, CA 94612

Association of Bay Area Governments (ABAG)  
375 Beale Street  
San Francisco, CA 94105

Bay Area Air Quality Management District (BAAQMD)  
Chief Executive Officer  
375 Beale Street, Suite 600  
San Francisco, CA 94105

Metropolitan Transportation Commission (MTC)  
375 Beale Street  
San Francisco, CA 94105

### **Federal and Statewide Elected Officials**

The Honorable Dianne Feinstein  
United States Senate  
One Post Street, Suite 2450  
San Francisco, CA 94104

The Honorable Alex Padilla  
United States Senate  
333 Bush Street, Suite 3225

*Bridge Rehabilitation Project  
Initial Study with Negative  
Declaration/Environmental Assessment*

San Francisco, CA 94101

The Honorable Barbara Lee  
United States House of Representatives (CA-13)  
2470 Rayburn House Office Building  
Washington, DC, 20515-0513

The Honorable Nancy Skinner  
California State Senate, District 9  
1021 O Street, Suite 8630  
Sacramento, CA 95814

The Honorable Mia Bonta  
California State Assembly, District 18  
1515 Clay Street, Suite 2204  
Oakland, CA 94612

### **Alameda County Elected Officials**

The Honorable Dave Brown  
Alameda County Board of Supervisors, District 3  
1221 Oak Street, Suite 536  
Oakland, CA 94612

The Honorable Keith Carson  
President of the Board  
Alameda County Board of Supervisors, District 5  
1221 Oak Street, Suite 536  
Oakland, CA 94612

The Honorable Nate Miley  
Vice President of the Board  
Alameda County Board of Supervisors, District 4  
1221 Oak Street, Suite 536  
Oakland, CA 94612

### **City of Oakland Elected Officials**

Mayor Libby Schaaf  
City of Oakland  
City Hall  
1 Frank H. Ogawa Plaza #3  
Oakland, CA 94612

Nikki Fortunato Bas  
Council President

City of Oakland Council District 2  
1 Frank H. Ogawa Plaza  
Oakland, CA 94612

Dan Kalb  
Councilmember  
City of Oakland Council District 1  
1 Frank H. Ogawa Plaza  
Oakland, CA 94612

Carroll Fife  
Councilmember  
City of Oakland Council District 3  
1 Frank H. Ogawa Plaza  
Oakland, CA 94612

Noel Gallo  
Councilmember  
City of Oakland Council District 5  
1 Frank H. Ogawa Plaza, 2<sup>nd</sup> Floor  
Oakland, CA 94612

Sheng Thao  
Councilmember  
City of Oakland Council District 4  
1 Frank H. Ogawa Plaza, 2<sup>nd</sup> Floor  
Oakland, CA 94612

### **Community Organizations**

Adams Point Neighborhood Group

Bike East Bay  
P.O. Box 1736  
Oakland, CA 94604

Easy Bay for Everyone  
2044 Franklin Street  
Oakland, CA 94612

Grand Lake Neighbors

Walk Oakland Bike Oakland  
1330 Broadway, 3rd floor

*Bridge Rehabilitation Project  
Initial Study with Negative  
Declaration/Environmental Assessment*

Oakland, CA 94612

**Community Stakeholders**

AIMS College Preparatory High School  
746 Grand Ave  
Oakland, CA 94610

Temple Beth Abraham  
327 MacArthur Blvd  
Oakland, CA 94610

Grand Lake Gardens  
401 Santa Clara Ave  
Oakland, CA 94610

Lake Merritt Healthcare Center  
309 MacArthur Blvd  
Oakland, CA 94610



# **Appendix A Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determinations**

---

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, or 4) the project does not permanently use the property and does not hinder the preservation of the property.

## **Properties Not Protected by Section 4(f)**

The AIMS College Preparatory High School is located along Grand Avenue directly next to the existing pedestrian overcrossing (POC) to be demolished. Demolition of the POC will take place right next to the school’s lot and will require a temporary construction easement extending about 10 feet within school property to complete. However, outreach efforts with the Head of School, Maurice Williams, in May 2022 indicated that the school’s lot is not open for general public use after school hours. As a result, the school’s lot is not considered a Section 4(f) property, therefore, the provisions of Section 4(f) do not apply.

## **Properties Protected by Section 4(f)**

The proposed project has been evaluated for the presence of archaeological and historic sites, public parks, recreational facilities, and wildlife refuges within approximately 0.5 miles of the project area to determine whether they are protected Section 4(f) resources and whether the project would “use” the properties. The properties identified are listed below:

The following public parks and recreation areas occur within the 0.5-mile radius of the proposed project and are located closest to project activities. They have also been identified by the Community Impact Assessment (CIA) (Caltrans 2022I) that was prepared for the project:

- Mosswood Park, next to the Webster Street UC;
- Oak Glen Park, next to the Broadway-Richmond UC;
- Splash Pad Park next to the Grand Avenue UC;

- Eastshore Park next to the Grand Avenue UC;
- William D. Wood Park, east of the Fruitvale Avenue UC

These parks are located adjacent to project construction activities and will not be altered or used for staging for any of the work proposed. While Oak Glen Park extends through the project area at the Broadway-Richmond Boulevard UC, the park passes underneath I-580 and the area of proposed work. The work around Oak Glen Park will take place above the park within the limits of the I-580 freeway to replace the existing bridge barrier railings. Oak Glen Park will not be accessed for construction or will not be used for staging equipment or vehicles. **These five properties are Section 4(f) properties, but no “use” will occur.** Construction and operation of the build alternatives would not require acquisition of lands from the parks, would not result in changes in access to the facilities, and would not visually alter the parks in any way that would affect protected activities, features, or attributes that qualify the parks for protection under 4(f).

In addition to the five parks mentioned above, the following public parks and historic sites are also located within 0.5-miles of the proposed project and are considered Section 4(f) properties:

- Mandana Plaza Park, located along Lakeshore Avenue
- Oak Grove Park, located along Mandana Boulevard
- Oak Park, located along Kempton Avenue
- Grove Shafter Park, located underneath the I-580/State Route 24 interchange
- Lake Merritt Wild Duck Refuge Historic Site, includes the area around Lake Merritt
- Locke House Historic Site, located at 3911 Harrison Street, Oakland
- St. Augustine's Episcopal Church and Historic Site, formerly known as Trinity Episcopal Church, located at 525 29th Street, Oakland
- The Bellevue-Staten Building Historic Site, located at 492 Staten Avenue, Oakland
- Juan Bautista de Anza National Historic Trail
- Pony Express National Historic Trail

These resources are located further away from project construction activities than the five parks mentioned earlier. **As before, these properties are Section 4(f) properties, but no “use” will occur.** Construction and operation of the build alternatives would not require acquisition these resources, would not result in changes in access to the facilities, and would not visually alter the resources in any way that would affect protected activities, features, or attributes.

## Appendix B List of Project Features (PFs)

Resource Area	Project Feature Number	Description
<b>Aesthetics and Visual Resources</b>	PF-AES-1	<b>Vegetation Preservation:</b> Minimize the removal of groundcover, shrubs, and mature trees to the maximum extent feasible, utilizing open areas for contractor staging/storage areas. Trees and existing vegetation outside of the clearing and grubbing limits would be protected from the contractor's operations, equipment, and materials storage. High visibility temporary fencing will be placed around vegetation to be protected before roadway work begins.
<b>Aesthetics and Visual Resources</b>	PF-AES-2	<b>Replacement Planting:</b> Replacement highway planting and irrigation along with a one-year plant establishment period will be provided in all areas of highway planting removal consistent with the corridor's Designated Scenic Highway Status and where safety and maintenance requirements can be met.
<b>Aesthetics and Visual Resources</b>	PF-AES-3	<b>Revegetation Planting:</b> All patches of disturbed soil will be reseeded using grasses and forbs.
<b>Aesthetics and Visual Resources</b>	PF-AES-4	<b>Erosion Control:</b> After construction, all areas cleared within the Project limits for uses such as contractor access, staging, and trenching operations would be treated with appropriate erosion control measures (such as mulch, hydroseed, and fiber rolls) where required.
<b>Aesthetics and Visual Resources</b>	PF-AES-5	<b>Construction Staging:</b> Except as detailed in the Contract Plans, staging areas would not affect existing landscaped areas resulting in death and/or removal of trees and shrubs, or disruption and destruction of existing irrigation facilities.
<b>Aesthetics and Visual Resources</b>	PF-AES-6	<b>Construction Waste:</b> During construction operations, unsightly material and equipment in staging areas would be placed where they are less visible and/or covered where possible.
<b>Aesthetics and Visual Resources</b>	PF-AES-7	<b>Construction Lighting:</b> Construction lighting would be directed toward the immediate vicinity of active work to avoid light trespass through directional lighting, shielding, and other measures as needed.
<b>Air Quality</b>	PF-AIR-1	<b>Dust Control:</b> During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. All material transported on site or off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after

Resource Area	Project Feature Number	Description
		work is done for the day. All material transported on site or off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.
Air Quality	PF-AIR-2	<b>Idling and Access Points:</b> Idling times would be minimized either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes. Clear signage would be provided for construction workers at all access points. Construction activities involving the extended idling of diesel equipment or vehicles would be prohibited, to the extent feasible.
Air Quality	PR-AIR-3	<b>Maintaining Construction Equipment and Vehicles:</b> All trucks that are to haul excavated or graded material on site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads.
Air Quality	PF-AIR-4	<b>Contractor Air Quality Compliance:</b> The contractor will adhere to Caltrans Standard Specifications for Construction, Sections 14.9-02 and 14-9.03, which require contractor compliance with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

Resource Area	Project Feature Number	Description
Biological Resources	PF-BIO-1	<b>Preconstruction Bird Surveys:</b> During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds would be conducted by a qualified biologist no more than 72 hours prior to the start of construction activities. If an active nest is discovered, biologists would establish an appropriate exclusion buffer around the nest. The standard buffer will be 50 feet for passerines (perching songbirds), 100 feet for egrets/herons, and 300 feet for raptors (birds of prey). The buffer zones will be delineated with high-visibility environmental fencing or demarcated with pin flags or ribbon, as applicable based on-site conditions. The area within the buffer would be avoided until the young are no longer dependent on the adults or the nest is no longer active. If a nesting special-status bird species is discovered, the biologist would notify the USFWS and/or CDFW for further guidance. Partially constructed and inactive nests may be removed to prevent occupation. Nesting birds near the Project footprint would be regularly monitored for signs of disturbance. To the extent feasible, tree removal, vegetation removal, and clearing and grubbing activities would not occur during the nesting season.
Biological Resources	PF-BIO-2	<b>Caltrans Standard Best Management Practices (BMPs):</b> The potential for adverse effects to water quality would be avoided by implementing temporary and permanent BMPs outlined in Section 7-104B of the Caltrans' Standard Specifications. Caltrans erosion control BMPs would be used to minimize any wind- or water-related erosion.
Biological Resources	PF-BIO-3	<b>Covering of Trenches and Excavated Holes:</b> To prevent inadvertent entrapment of wildlife during construction, excavated holes or trenches more than one foot deep with walls steeper than 30 degrees would be covered by plywood or similar materials at the close of each working day. Alternatively, an additional 4-foot-high vertical barrier, independent of exclusionary fences, would be used to further prevent the inadvertent entrapment of listed species. If it is not feasible to cover an excavation or provide an additional 4-foot-high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks would be installed. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.
Biological Resources	PF-BIO-4	<b>Monofilament Netting:</b> To prevent wildlife from being entangled, trapped or injured, erosion control materials with plastic mono-filament netting would not be used within the BSA.
Biological Resources	PF-BIO-5	<b>Firearms:</b> No firearms would be allowed in the BSA except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.
Biological Resources	PF-BIO-6	<b>Pets:</b> To prevent harassment, injury, or mortality of sensitive species, no pets would be permitted in the BSA.
Biological Resources	PF-BIO-7	<b>Wetlands:</b> No construction impacts, dredge, or fill would occur to any wetlands or waterways.

Resource Area	Project Feature Number	Description
<b>Biological Resources</b>	PF-BIO-8	<b>Replanting with Native Species:</b> All areas that are temporarily affected during construction would be revegetated as needed with an assemblage of native grass, shrub, and/or tree species to restore habitat values. Invasive, exotic plants would be controlled to the maximum extent practicable, pursuant to Executive Order 13112 (Invasive Species).
<b>Cultural Resources</b>	PF-CUL-1	<b>Discovery of Human Remains:</b> If remains are discovered during excavation, all work within 60 feet of the discovery would halt and Caltrans' Cultural Resource Studies office would be called. Caltrans' Cultural Resources Studies Office Staff would assess the remains and, if determined human, would contact the County Coroner as per Public Resources Code (PRC) Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the Coroner determines the remains to be Native American, the Coroner would contact the Native American Heritage Commission who would then assign and notify a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on respectful treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
<b>Cultural Resources</b>	PF-CUL-2	<b>Discovery of Cultural Materials:</b> If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a Caltrans qualified archaeologist is contacted to assess the nature and significance of the find.
<b>Greenhouse Gas Emissions (GHG)</b>	PF-GHG-1	<b>Emissions Reductions:</b> Implementation of Caltrans Standard Specifications, such as complying with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract and the use of construction best management practices, would result in reducing GHG emissions from construction activities, including but not limited to: <ol style="list-style-type: none"> <li>1. Regular vehicle and equipment maintenance</li> <li>2. Limit idling of vehicles and equipment onsite</li> <li>3. If practicable, recycle nonhazardous waste and excess material.</li> </ol> <p>If recycling is not practicable, dispose of material</p> <ol style="list-style-type: none"> <li>4. Use solar-powered signal boards, if feasible</li> </ol> <p>In addition, with innovations such as longer pavement lives, improvement in traffic management and changes in materials, construction-related GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.</p>
<b>Hazards and Hazardous Materials</b>	PF-HAZ-1	<b>Aerially Deposited Lead Work Plan:</b> Caltrans will prepare a work plan for aerially deposited lead if required during the design (Plans, Specifications and Estimate [PS&E]) phase. Soil samples collected to evaluate aerially-deposited lead would be analyzed for total lead and soluble lead in accordance with Department of Toxic Substances Control's requirements to

Resource Area	Project Feature Number	Description
		determine appropriate actions that would ensure the protection of construction workers, future site users, and the environment.
<b>Hazards and Hazardous Materials</b>	PF-HAZ-2	<b>Asbestos and Lead-Based Paint Survey:</b> Existing interchange structures that would be removed by the Project would be tested for asbestos and lead-based paint by a qualified and licensed inspector prior to demolition. All asbestos-containing material or lead-based paint, if found, would be removed by a certified contractor in accordance with local, state, and federal requirements.
<b>Hazards and Hazardous Materials</b>	PF-HAZ-3	<b>Hazardous Materials Incident Contingency Plan:</b> Prior to construction, a hazardous materials incident contingency plan would be prepared to report, contain, and mitigate roadway spills. The plan would designate a chain of command for notification, evacuation, response, and cleanup of roadway spills.
<b>Noise</b>	PF-NOI-1	<b>Daytime Construction:</b> If feasible, do not schedule construction activities during night, between 9:00 pm and 6:00 am.
<b>Noise</b>	PF-NOI-2	<b>Public Outreach:</b> Public outreach shall be required throughout the project duration of construction to update nearby residents, businesses, and other project stakeholders on upcoming construction activities and any changes to the project construction timeline.
<b>Noise</b>	PF-NOI-3	<b>Staging and Storage Areas:</b> Locate staging and storage areas away from sensitive receptors (especially residences) and, if feasible, enclose staging and storage areas.
<b>Noise</b>	PF-NOI-4	<b>Alternative Methods or Equipment:</b> Use quieter alternative methods or equipment, if feasible. (e.g. use of electricity instead of a generator, if feasible at the location). Prevent idling of equipment near sensitive receptors. Equip any internal combustion engines with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
<b>Noise</b>	PF-NOI-5	<b>Prevent Idling:</b> Prevent idling of equipment near sensitive receptors.
<b>Noise</b>	PF-NOI-6	<b>Internal Combustion Engines:</b> Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
<b>Paleontology</b>	PF-PAL-1	<b>Discovery of Paleontological Resources:</b> If unanticipated paleontological resources are discovered at the job site, do not disturb the resources and immediately: 1) stop all work within a 60-foot radius of the discovery, 2) secure the area, and 3) notify the engineer. Caltrans investigates the discovery and modifies the dimensions of the secured area if needed. Do not move paleontological resources or take them from the job site. Do not resume work within the radius of discovery until authorized.



Resource Area	Project Feature Number	Description
Paleontology	PF-PAL-2	<b>Paleontological Mitigation Plan:</b> A project-specific Paleontological Mitigation Plan will be prepared by a qualified principal paleontologist (MS or PhD in paleontology) once adequate project design information regarding subsurface disturbance location, depth, and lateral extent is available.
Transportation and Traffic	PF-TRA-1	<p><b>Traffic Management Plan:</b> A Traffic Management Plan (TMP) would be developed by Caltrans during the Design Phase. The TMP would include elements such as detours, expected lane closures, haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing to reduce impacts to local residents as feasible and maintain access for police, fire, and medical services in the area.</p> <p>Prior to construction, Caltrans would notify adjacent property owners, businesses, and the City of Oakland regarding construction activities, access changes, and lane closures and detours. In addition, Caltrans would coordinate with the local Fire Department and emergency response services prior to construction to minimize potential disruption to emergency services.</p>
Utilities and Service Systems	PR-UTIL-1	<b>Trash Management:</b> All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once daily from the project limits.
Utilities and Service Systems	PF-UTIL-2	<b>Notify Utility Owners of Construction Schedule to Protect Utilities:</b> Caltrans would notify all affected utility companies, such as PG&E, of construction schedules for proposed project work so that they can relocate the gas, telephone, cable, or overhead distribution lines prior to construction and minimize disruption of any utility service.
Water Quality	PF-WQ-1	<p><b>Water Quality Best Management Practices:</b> The calculated disturbed soil area (DSA) is less than one acre, thus preparation of a water pollution control plan (WPCP) is required that includes Best Management Practices (BMPs) to reduce the pollutants in stormwater discharges during construction and permanently to the Maximum Extent Practicable (MEP). The BMPs recommended for this project are as follows:</p> <ul style="list-style-type: none"> <li>• Job site management for effective handling, storage, usage, and disposal practices to control material pollution and manage waste at the job site before they enter storm drain systems or receiving waters.</li> <li>• Concrete waste management is recommended to minimize or eliminate discharge of concrete waste material to storm drain systems.</li> <li>• Sediment control consisting of temporary fiber rolls and silt fences placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the</li> </ul>

Resource Area	Project Feature Number	Description
		<p>runoff as a sheet flow, and remove sediment from runoff.</p> <ul style="list-style-type: none"> <li>• Storm drain inlet protection to reduce sediment from storm water runoff discharging from the construction site prior to entering the storm drainage system.</li> <li>• Waste management and materials pollution control (materials delivery and storage, spill prevention and control, solid waste management, hazardous waste and contaminated soil management, sanitary/septic and liquid waste management).</li> <li>• Non-storm water management related to water conservation practices, vehicle and equipment cleaning and maintenance, concrete curing, and concrete finishing.</li> <li>• Wind erosion control measures including adding hydraulic mulch and temporary covers.</li> <li>• Tracking control measures including temporary construction entrances and exits and street sweeping.</li> </ul>

# Appendix C      Avoidance, Minimization, and/or Mitigation (AMM) Measures Summary

---

Resource Area	AMM Number	AMM Name and Description
<b>Aesthetics and Visual Resources</b>	AMM-AES-1	<b>Aesthetic Treatment of Bridge Support Columns and Walls.</b> The proposed steel casings at the Broadway-Richmond Boulevard I-580 Undercrossing (PM 44.51) shall be architecturally treated to blend with their surrounding environment. Additionally, the proposed infill bridge support walls at the Fruitvale Avenue Undercrossing (PM R41.3) shall have architectural treatment to blend with the visual character of their surrounding environment, using context-sensitive designs. This may include form lines and/or art designed by and representative of the local community.
<b>Aesthetics and Visual Resources</b>	AMM-AES-2	<b>Aesthetic Treatment of Bridge Barrier Railings.</b> The proposed Type 836 bridge barrier railings over Webster Street (PM 44.81), Broadway-Richmond Boulevard (PM 44.51), and Fruitvale Avenue (PM R41.3) shall be architecturally treated to minimize their visual impact on the I-580 corridor and the surrounding visual environment. The precise architectural treatment would be determined during the project's detailed design phase.
<b>Aesthetics and Visual Resources</b>	AMM-AES-3	<b>Aesthetic Treatment of new Proposed Pedestrian Overcrossing.</b> The new pedestrian overcrossing structure proposed by Alternative 1 shall have architectural treatment to blend with the visual character of its surrounding environment, using a context-sensitive design. This may include treatments of the structure's supports. Particular care shall be placed on the design of the new north and south landings at Crescent Street and MacArthur Boulevard, to ensure that they blend harmoniously with the visual environment of both locations.
<b>Noise</b>	AMM-NOI-1	<b>Construction Noise Control and Noise Monitoring.</b> Construction noise control and monitoring will be included as part of the Contract documents to minimize construction noise. Examples of noise control measures may include temporary enclosures or stockpiles of excavated material between noisy activities and noise sensitive receptors or around activities with high noise levels, using smaller equipment or equipment with lower noise levels, etc. This AMM will be implemented for POC demolition work near AIMS College Prep High School and nearby residences and for seismic retrofit at the Fruitvale Avenue UC near the Francophone School's Satellite Campus.
<b>Noise</b>	AMM-NOI-2	<b>CIDH Piles at Fruitvale Avenue UC.</b> Recommend the use of Cast-in-Drill-Hole (CIDH) pile driving at this location for seismic retrofit and foundation work instead of impact pile driving.

Resource Area	AMM Number	AMM Name and Description
Transportation and Traffic	AMM-TRA-1	<b>Advanced Public Notification and Detours.</b> Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion. Detour routes will be planned in coordination with Caltrans and the City of Oakland traffic department, and they will be sent in advance to emergency service providers, transit operators, and users of I-580, I-880, I-980, State Route (SR) 13, SR 24, and SR 238.
Transportation and Traffic	AMM-TRA-2	<b>Public Notification Plan.</b> A public notification plan will be implemented to keep the public informed and to minimize potential disruptions to travelers and emergency service providers. Strategies, such as changeable message signs, will notify travelers of pending construction activities.
Transportation and Traffic	AMM-TRA-3	<b>AC Transit Coordination.</b> The project team will coordinate with AC Transit to provide advance public notification of temporary bus stop relocations.
Transportation and Traffic	AMM-TRA-4	<b>Residential Outreach.</b> Early communication will be implemented to inform residents in project areas of construction impacts. The project team will coordinate with the City of Oakland and property owners along Santa Clara Avenue, Crescent Street, and MacArthur Boulevard to ensure 24/7 access to residences during implementation of full road closures.

## Appendix D List of Acronyms and Abbreviations

---

This list contains the most common acronyms and abbreviations found on the SER and may also be adapted for use in environmental documents.

### A

**AB:** Assembly Bill

**ABAG:** Association of Bay Area Governments

**ACHP:** Advisory Council on Historic Preservation

**ADA:** Americans with Disabilities Act

**ADL:** aerially deposited lead

**ADT:** average daily traffic

**AE:** Adverse Effect

**AHERA:** Asbestos Hazard Emergency Response Act

**AIRFA:** American Indian Religious Freedom Act

**AMM:** Avoidance, Minimization, and/or Mitigation measure

**APCD:** Air Pollution Control District

**APE:** Area of Potential Effects

**AQMD:** Air Quality Management District

**ARB:** Air Resources Board

**ARPA:** Archaeological Resources Protection Act of 1979

**ASR:** Archaeological Survey Report

### B

**BMP:** Best Management Practice

### C

**CAA:** Clean Air Act

**Cal/EPA:** California Environmental Protection Agency  
**Cal/OSHA:** California Division of Occupational Safety and Health Administration  
**CCAA:** California Clean Air Act  
**CDFW:** California Department of Fish and Wildlife  
**CE:** Categorical Exclusion (NEPA) or Categorical Exemption (CEQA)  
**CEQ:** Council on Environmental Quality  
**CEQA:** California Environmental Quality Act  
**CERES:** California Environmental Resources Evaluation System  
**CERLA:** Comprehensive Environmental Response, Compensation, and Liability Act  
**CESA:** California Endangered Species Act  
**CFR:** Code of Federal Regulations  
**CGS:** California Geological Survey  
**CHP:** California Highway Patrol  
**CHRIS:** California Historical Resources Information System  
**CIA:** Community Impact Assessment  
**CIDH:** cast-in-drilled-hole  
**CNDDB:** California Natural Diversity Database  
**CNPS:** California Native Plant Society  
**CO:** carbon monoxide  
**CO<sub>2</sub>:** carbon dioxide  
**COG:** Council of Governments  
**COZEEP:** Construction Zone Enhanced Enforcement Program  
**CPRA:** California Public Records Act  
**CRHR:** California Register of Historical Resources  
**CRM:** Cultural Resources Management  
**CSO:** Cultural Studies Office  
**CTC:** California Transportation Commission  
**CTP:** California Transportation Plan

**CUPA:** Certified Unified Program Agencies

**CWA:** Clean Water Act

## **D**

**dB(A):** A-weighted decibel

**dB(A) Leq:** A-weighted noise level

**DEA:** Division of Environmental Analysis

**DED:** draft environmental document

**DNAC:** District Native American Coordinator

**DOC:** California Department of Conservation

**DOT:** Department of Transportation [general]

**DPR:** Draft Project Report

**DPR:** California Department of Parks and Recreation

**DSA:** Disturbed Soil Area

**DSI:** Detailed Site Investigation

**DTSC:** California Department of Toxic Substances Control

**DWR:** California Department of Water Resources

## **E**

**EA:** Environmental Assessment [NEPA]

**ECL:** Environmental Construction Liaison/Coordinator

**ECR:** Environmental Commitments Record

**ED:** environmental document

**EFH:** Essential Fish Habitat

**EH:** Environmental Handbook

**EIR:** Environmental Impact Report [CEQA]

**EIS:** Environmental Impact Statement [NEPA]

**EJ:** Environmental Justice

**EMO:** Environmental Management Office

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*



**EO:** Executive Order  
**ESA:** Environmentally Sensitive Area  
**ESA:** Endangered Species Act  
**ESR:** Environmental Study Request

## **F**

**FAE:** Finding of Adverse Effect  
**FBFM:** Flood Boundary and Floodway Map  
**FED:** final environmental document  
**FEIR:** Final Environmental Impact Report (CEQA)  
**FEIS:** Final Environmental Impact Statement (NEPA)  
**FEMA:** Federal Emergency Management Agency  
**FESA:** Federal Endangered Species Act  
**FHWA:** Federal Highway Administration  
**FIRM:** Flood Insurance Rate Map  
**FLPMA:** Federal Land Policy and Management Act of 1976  
**FNAE:** Finding of No Adverse Effect  
**FOE:** Finding of Effect  
**FOIA:** Freedom of Information Act  
**FONSI:** Finding of No Significant Impact [NEPA]  
**FPPA:** Farmland Protection Policy Act  
**FR:** Federal Register  
**FSTIP:** Federal State Transportation Improvement Program  
**FTIP:** Federal Transportation Improvement Program  
**FY:** Fiscal Year

## **G**

**GHG:** greenhouse gas  
**GIS:** Geographic Information Systems

**GPS:** Global Positioning System

## **H**

**HABS:** Historic American Building Survey

**HAER:** Historic American Engineering Record

**HASR:** Historic Architectural Survey Report

**HCM:** Highway Capacity Manual

**HCP:** Habitat Conservation Plan

**HDM:** Highway Design Manual

**HGM:** Hydrogeomorphic Method

**HMDD-A:** Hazardous Materials Disclosure Document-Acquisition

**HMDD-D:** Hazardous Materials Disclosure Document-Disposal

**HPSR:** Historic Property Survey Report

**HRC:** Heritage Resources Coordinator

**HRCR:** Historical Resources Compliance Report

**HRER:** Historical Resources Evaluation Report

**HSWA:** Hazardous and Solid Waste Amendments

## **I**

**IGR:** Intergovernmental Review

**IIP:** Interregional Improvement Program

**IPCC:** Intergovernmental Panel on Climate Change

**IS:** Initial Study [CEQA]

**IS/EA:** Initial Study [CEQA]/Environmental Assessment [NEPA]

**ISA:** Initial Site Assessment

**ITIP:** Interregional Transportation Improvement Program

**ITP:** Incidental Take Permit

**ITSP:** Interregional Transportation Strategic Plan

## J

**JD:** Jurisdictional Determination

## K

## L

**LAPM:** Local Assistance Procedures Manual

**LEDPA:** Least Environmentally Damaging Practicable Alternative

**LESA:** Land Evaluation and Site Assessment

**LUST:** leaking underground storage tank

**LWCFA:** Land and Water Conservation Fund Act of 1965

## M

**MAP-21:** Moving Ahead for Progress in the 21<sup>st</sup> Century Act

**MBTA:** Migratory Bird Treaty Act

**MCCE:** Mitigation and Compliance Cost Estimate

**MEP:** Maximum Extent Practicable

**MMPA:** Marine Mammal Protection Act

**MMRR:** Mitigation Monitoring and Reporting Record

**MND:** Mitigated Negative Declaration [CEQA]

**MOA:** Memorandum of Agreement

**MOU:** Memorandum of Understanding

**MPO:** Metropolitan Planning Organization

**MS4:** Municipal Separate Storm Sewer System

**MSAT:** Mobile Source Air Toxics

**MTP:** Metropolitan Transportation Plan

**MTIP:** Metropolitan Transportation Improvement Program

## N

**NAAQS:** National Ambient Air Quality Standards

*Bridge Rehabilitation Project*

*Initial Study with Negative*

280

*Declaration/Environmental Assessment*

**NAC:** Noise Abatement Criteria  
**NADR:** Noise Abatement Decision Report  
**NAE:** No Adverse Effect  
**NAGPRA:** Native American Graves Protection and Repatriation Act of 1990  
**NAHC:** Native American Heritage Commission  
**NCCP:** Natural Community Conservation Planning  
**NCHRP:** National Cooperative Highway Research Program  
**ND:** Negative Declaration [CEQA]  
**NEPA:** National Environmental Policy Act  
**NES:** Natural Environment Study  
**NES-MI:** Natural Environmental Study (Minimal Impact)  
**NESHAP:** National Emissions Standards for Hazardous Air Pollutants  
**NFIP:** National Flood Insurance Program  
**NFSAM:** National Flood Security Act Manual  
**NH<sub>3</sub>:** ammonia  
**NHL:** National Historic Landmark  
**NHPA:** National Historic Preservation Act  
**NHS:** National Highway System  
**NNL:** National Natural Landmark  
**NOA:** naturally occurring asbestos  
**NOA:** Notice of Availability  
**NOAA:** National Oceanic and Atmospheric Administration  
**NOAA-Fisheries:** National Marine Fisheries Service  
**NOC:** Notice of Completion  
**NOD:** Notice of Determination  
**NOE:** Notice of Exemption  
**NOI:** Notice of Intent  
**NOP:** Notice of Preparation

**NOx:** nitrogen oxide

**NPDES:** National Pollutant Discharge Elimination System

**NPL:** National Priorities List

**NPPA:** [California] Native Plant Protection Act

**NPRM:** Notice of Proposed Rule Making

**NPS:** National Park Service

**NR:** National Register [of Historic Places]

**NRCS:** National Resources Conservation Service

**NRHP:** National Register of Historic Places

**NSSP:** Nonstandard Special Provision

**NWP:** Nationwide Permit

## O

**O.C.:** Overcrossing

**OCRM:** National Oceanic and Atmospheric Administration-Office of Ocean and Coastal Resource Management

**OHP:** [California] Office of Historic Preservation

**OHWM:** Ordinary High-Water Mark

**OPR:** [California] Office of Planning and Research

**OSHA:** Occupational Safety Hazard Administration

## P

**PA:** Programmatic Agreement

**PA&ED:** Project Approval and Environmental Document

**Pb:** lead

**PDPM:** [Caltrans] Project Development Procedures Manual

**PDT:** Project Development Team

**PE:** Project Engineer

**PEAR:** Preliminary Environmental Assessment Report

**PEER:** Permit Engineering Evaluation Report  
**PER:** Paleontological Evaluation Report  
**PF:** Project Feature(s)  
**PG:** Professional Geologist  
**PG&E:** Pacific Gas and Electric Company  
**PID:** Project Initiation Document  
**PIR:** Paleontological Identification Report  
**PLAC:** Permits, Licenses, Agreements, and Certifications  
**PM:** particulate matter  
**PM:** post mile  
**PM10:** particulate matter less than 10 microns in diameter  
**PM2.5:** particulate matter less than 2.5 microns in diameter  
**PMP:** Paleontological Mitigation Plan  
**PMR:** Paleontological Mitigation Report  
**POAQC:** Project of Air Quality Concern  
**POC:** Pedestrian Overcrossing  
**ppb:** parts per billion  
**ppm:** parts per million  
**PR:** Project Report  
**PRC:** [California] Public Resources Code  
**PS&E:** Plans, Specifications, and Estimates  
**PSI:** Preliminary Site Investigation  
**PSI:** pounds per square inch  
**PUC:** Public Utilities Commission [California]

## **Q**

## **R**

**RAP:** Relocation Assistance Program

**RCRA:** Resource Conservation and Recovery Act of 1976

**RIP:** Regional Improvement Program

**ROD:** Record of Decision [NEPA]

**ROW:** right-of-way

**RTIP:** Regional Transportation Improvement Program

**RTP:** Regional Transportation Plan

**RTPA:** Regional Transportation Planning Agency

**RWQCB:** Regional Water Quality Control Board

## **S**

**SAFETEA-LU:** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

**SARA:** Superfund Amendments and Reauthorization Act

**SB:** Senate Bill

**SCH:** [California] State Clearinghouse

**SDWA:** Safe Drinking Water Act

**SEE:** social, economic, and environmental

**SER:** Standard Environmental Reference

**SFHA:** Special Flood Hazard Area

**SHA:** State Highway Agency

**SHBSB:** State Historical Building Safety Board

**SHL:** State Historical Landmark

**SHOPP:** State Highway Operation and Protection Program

**SHPO:** State Historic Preservation Officer

**SHS:** State Highway System

**SI:** Safety Index

**SIP:** State Implementation Plan

**SLC:** [California] State Lands Commission

**SMARA:** Surface Mining and Reclamation Act of 1975

*Bridge Rehabilitation Project*

*Initial Study with Negative*

284

*Declaration/Environmental Assessment*

**SOC:** Statement of Overriding Considerations [CEQA]

**SOL:** Statute of Limitations

**SR:** State Route

**SSP:** Standard Special Provision

**STIP:** Statewide Transportation Improvement Program

**SWMP:** Storm Water Management Plan

**SWPPP:** Storm Water Pollution Prevention Plan

**SWRCB:** State Water Resources Control Board

## **I**

**TAC:** Technical Advisory Committee

**TASAS:** Traffic Accident Surveillance and Analysis System

**TCE:** Temporary Construction Easement

**TDM:** Transportation Demand Management

**TEA-21:** Transportation Equity Act for the 21<sup>st</sup> Century

**THPO:** Tribal Historic Preservation Officer

**TIP:** Transportation Improvement Program

**TMDL:** Total Maximum Daily Load

**TMP:** Traffic Management Plan

**TSM:** Transportation Systems Management

## **U**

**UC:** Undercrossing

**U.S. EPA:** United States Environmental Protection Agency

**USACE:** United States Army Corps of Engineers

**USDOT:** United States Department of Transportation

**USFS:** United States Forest Service

**USFWS:** United States Fish and Wildlife Service

**USGS:** United States Geological Survey

*Bridge Rehabilitation Project*

*Initial Study with Negative*

*Declaration/Environmental Assessment*



**UST:** underground storage tanks

**V**

**VMT:** Vehicle Miles of Travel

**VOC:** volatile organic compound

**W**

**WPCP:** Water Pollution Control Program

**X**

**Y**

**Z**

## **Appendix E      List of Technical Studies**

---

- AECOM for California Department of Transportation (Caltrans). 2022a. *Visual Impact Assessment (VIA)*. August 2022.
- California Department of Transportation (Caltrans). 2022b. *Bridge Rehabilitation Project Natural Environment Study: Minimal Impacts (NES-MI)*. August 2022.
- California Department of Transportation (Caltrans). 2022c. *Construction Greenhouse Gas Analysis*. March 2022.
- California Department of Transportation (Caltrans). 2022d. *Construction Noise Analysis Report*. August 2022.
- California Department of Transportation (Caltrans). 2022e. *Energy Analysis Report*. March 2022.
- California Department of Transportation (Caltrans). 2021f. *Geologic, Seismic, and Paleontological Memorandum*. October 2021.
- California Department of Transportation (Caltrans). 2021g. *Hazardous Waste Memorandum*. April 2021.
- California Department of Transportation (Caltrans). 2022h. *Hydraulic Floodplain Assessment*. October 2021.
- California Department of Transportation (Caltrans). 2022i. *Office of Cultural Resource Studies (OCRS) Section 106 Historic Property Survey Report (HPSR) for Proposed I-580 Bridge Rehabilitation Project*. June 2022.
- California Department of Transportation (Caltrans). 2022j. *Section 4(f)*. July 2022.
- California Department of Transportation (Caltrans). 2021k. *Water Quality Study*. October 2021.
- Kleinfelder Consulting for California Department of Transportation (Caltrans). 2022l. *Community Impact Assessment (CIA)*. July 2022.

## Appendix F List of References

---

- Alameda County Housing and Community Development Department, Applied Survey Research, Aspire Consulting, and EveryOne Home. *EveryOne Counts! 2019 Homeless County and Survey*. 2019. EveryOne [https://everyonehome.org/wp-content/uploads/2019/12/2019HIRDRReport\\_Oakland\\_2019-Final.pdf](https://everyonehome.org/wp-content/uploads/2019/12/2019HIRDRReport_Oakland_2019-Final.pdf)
- Alameda County Transportation Commission (ACTC). 2020. *2020 Countywide Transportation Plan*. Accessed December 2020. Available at: <https://www.alamedactc.org/planning/countywidetransportationplan/> (website) and [https://www.alamedactc.org/wp-content/uploads/2020/11/2020\\_CTP\\_DraftFinal\\_201111\\_spreads.pdf](https://www.alamedactc.org/wp-content/uploads/2020/11/2020_CTP_DraftFinal_201111_spreads.pdf) (full plan)
- Anti-Eviction Mapping Project. 2022. <https://antievictionmap.com/>
- Association of Bay Area Governments (ABAG). 2020. *Priority Development Area Program Review*. Accessed May 2022. Available at: <https://abag.ca.gov/technical-assistance/priority-development-area-program-overview>
- CAL FIRE. 2007 Alameda County Fire Hazard Severity Zones in SRA. Link to Fire Hazard Severity Map.
- California Department of Transportation (Caltrans). 2011. *2011 Update to Volume 4 – Standard Environmental Reference Handbook, Chapter 7 – Relocation and Displacement*. Accessed April 2021. Available at: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/f0004171-ch7-relocation-displacement-21102011-a11y.pdf>
- City of Oakland, Department of Transportation (OakDOT). 2017. *Oakland Walks! 2017 Pedestrian Plan Update*. Available at: <https://www.oaklandca.gov/resources/pedestrian-plan-update>
- City of Oakland, OakDOT. 2019. *2019 Oakland Bike Plan*. Available at: <https://www.oaklandca.gov/resources/bicycle-plan>
- City of Oakland, OakDOT. 2020. *Strategic Plan*. Available at: <https://www.oaklandca.gov/resources/department-of-transportation-a-strategic-plan>
- City of Oakland, OakDOT. 2021. “Bikeway Types.” Available at: <https://www.oaklandca.gov/resources/bikeway-types>

- City of Oakland, OakDOT. 2022a. *Grand Avenue Mobility Plan*. Available at: <https://www.oaklandca.gov/projects/grand-avenue-mobility-plan>
- City of Oakland, OakDOT. 2022b. Major Projects Map. Available at: <https://www.oaklandca.gov/resources/active-major-improvements-project>
- City of Oakland, Parks, Recreation & Youth Development Department. 2022. *Park Listings*. Accessed April 2022. Available at: <https://www.oaklandca.gov/topics/parks>.
- City of Oakland, Planning and Building Department. 2014. Broadway Valdez District Specific Plan. Available at: <https://www.oaklandca.gov/topics/broadway-valdez-district-specific-plan>
- City of Oakland, Planning and Building Department. 2015. “General Plan Designations.” Available at: <https://www.oaklandca.gov/resources/general-plan-map>
- City of Oakland, Planning and Building Department. 2022. *Zoning and Estuary Policy Plan Maps*. 2022b. Available at: <https://www.oaklandca.gov/resources/zoning-map>.
- Oakland Planning Bureau. 2021. Major Projects List, November 2021. <https://www.oaklandca.gov/resources/view-an-interactive-map-the-city-of-oakland-major-development-projects>
- City of Oakland, Public Works. 2022. “Homeless Encampment Clean-up Schedule.” Available at: <https://cao-94612.s3.amazonaws.com/documents/Encampment-Clean-up-Schedule-Web-042522.pdf>
- Mueller, Scott, Grand Lake Gardens Resident Services Director. Personal Communication. June 20, 2022.
- Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments. October 2021. *Plan Bay Area 2050*. Accessed April 2021. Available at: <https://www.planbayarea.org/finalplan2050>
- National Wild and Scenic River Systems. Accessed December 2020. Available at: <https://www.rivers.gov/>
- Office of Environmental Health Hazard Assessment (OEHHA). June 2018. California Communities Environmental Health Screening Tool. Available at: <https://oehha.ca.gov/calenviroscreen/about-calenviroscreen>
- PolicyLink. 2019. National Equity Atlas: Car Access. Available at: [https://nationalequityatlas.org/indicators/Car\\_access#/](https://nationalequityatlas.org/indicators/Car_access#/)

Stone, Martin. Representative, Temple Beth Abraham. Personal communications. May 24, 2022.

U.S. Census Bureau. 2009. American Community Survey (ACS) 5-Year Estimates Data Profiles (2005-2009). Accessed April 2021. Available at: <https://data.census.gov/cedsci/all?d=ACS 5-Year Estimates Data Profiles>

U.S. Census Bureau. 2010. Decennial Census. Accessed April 2021. Available at: <https://data.census.gov/cedsci/>

U.S. Census Bureau. 2014. American Community Survey (ACS) 5-Year Estimates Data Profiles (2010-2014). Accessed April 2021. Available at: <https://data.census.gov/cedsci/all?d=ACS 5-Year Estimates Data Profiles>

U.S. Census Bureau. 2019. American Community Survey (ACS) 5-Year Estimates Data Profiles (2015-2019). Accessed April 2021. Available at: <https://data.census.gov/cedsci/all?d=ACS 5-Year Estimates Data Profiles>

U.S. Census Bureau. 2020. Decennial Census. Accessed April 2021. Available at: <https://data.census.gov/cedsci/>

U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD). 2019. OnTheMap Application. Accessed April 2021. Available at <https://onthemap.ces.census.gov/>.

U.S. Department of Health and Human Services. 2020. HHS Poverty Guidelines for 2020. Accessed December 2020. Available at: <https://aspe.hhs.gov/poverty-guidelines>.

Williams, Maurice. Head of School, AIMS College Prep High School. Personal communications. May 18, 2022.

# Appendix G Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

## DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-49  
SACRAMENTO, CA 94273-0001  
PHONE (916) 654-6130  
FAX (916) 653-5776  
TTY 711  
[www.dot.ca.gov](http://www.dot.ca.gov)



*Making Conservation  
a California Way of Life.*

September 2021

## NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:  
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

A handwritten signature in blue ink, appearing to read "Toks Omishakin".

Toks Omishakin  
Director

*"Provide a safe and reliable transportation network that serves all people and respects the environment."*

# **Appendix H    Species Lists**

---



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:  
Project Code: 2022-0041633  
Project Name: 0P900 Bridge Rehab

May 11, 2022

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

### To Whom It May Concern:

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

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

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

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



(c). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

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

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

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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

Attachment(s):

- Official Species List

## **Official Species List**

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

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

## Project Summary

Project Code: 2022-0041633

Event Code: None

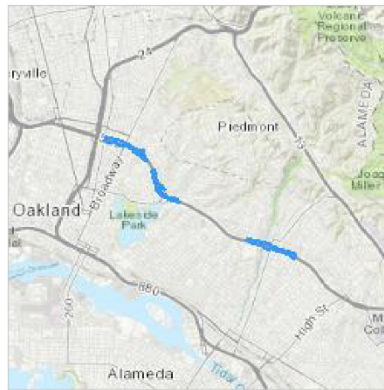
Project Name: 0P900 Bridge Rehab

Project Type: Bridge - Maintenance

Project Description: The California Department of Transportation (Caltrans) proposes the Interstate 580 (I-580) Bridge Upgrade and Seismic Retrofit Project (Project) to upgrade existing bridge rail on three bridges, seismically retrofit two bridges, demolish two existing pedestrian overcrossings (POC), and either construct a new POC or enhance a nearby existing POC along I-580 in Alameda County. The purpose of the Project is to bring existing structures into conformity with current state and federal highway design standards. The Project is needed to seismically retrofit existing bridges, raise vertical clearances, and upgrade bridges rails that are not up to the current design standards.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.797926649999994,-122.21546127633867,14z>



Counties: Alameda County, California

## Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

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

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

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

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

### Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/613">https://ecos.fws.gov/ecp/species/613</a>	Endangered

### Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4240">https://ecos.fws.gov/ecp/species/4240</a>	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8104">https://ecos.fws.gov/ecp/species/8104</a>	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/8035">https://ecos.fws.gov/ecp/species/8035</a>	Threatened

---

## Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5524">https://ecos.fws.gov/ecp/species/5524</a>	Threatened
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a>	Threatened

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened
Tidewater Goby <i>Eucyclogobius newberryi</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/57">https://ecos.fws.gov/ecp/species/57</a>	Endangered

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened

## Flowering Plants

NAME	STATUS
California Seablite <i>Suaeda californica</i> Population: No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6310">https://ecos.fws.gov/ecp/species/6310</a>	Endangered
Pallid Manzanita <i>Arctostaphylos pallida</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8292">https://ecos.fws.gov/ecp/species/8292</a>	Threatened
Presidio Clarkia <i>Clarkia franciscana</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3890">https://ecos.fws.gov/ecp/species/3890</a>	Endangered
Robust Spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/9287">https://ecos.fws.gov/ecp/species/9287</a>	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/6832">https://ecos.fws.gov/ecp/species/6832</a>	Threatened

## Critical habitats

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

### **IPaC User Contact Information**

Agency: California Department of Transportation District 4

Name: Cherish Cartagena

Address: 1512 Franklin St Ste 100

City: Oakland

State: CA

Zip: 94612

Email ccartagenamills@kleinfelder.com

Phone: 5108910024



**Project Name: Install Fiber Optic System and Traffic Management Systems**

**Elements Project**

**Project EA: 04-2Q740**

**Agency: California Department of Transportation**

**111 Grand Avenue Oakland, California 94612**

**Contact: Cherish Cartagena-Mills (559) 759-9484**

**Email: Ccartagenamills@kleinfelder.com**

**Date: 5/11/22**

Quad Name **San Francisco South**

Quad Number **37122-F4**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) - **X**

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - **X**

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat - **X**

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - X

**ESA Marine Invertebrates**

Range Black Abalone (E) - X

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat - X

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) - X

Olive Ridley Sea Turtle (T/E) - X

Leatherback Sea Turtle (E) - X

North Pacific Loggerhead Sea Turtle (E) - X

**ESA Whales**

Blue Whale (E) - X

Fin Whale (E) - X

Humpback Whale (E) - X

Southern Resident Killer Whale (E) - X

North Pacific Right Whale (E) - X

Sei Whale (E) - X

Sperm Whale (E) - X

**ESA Pinnipeds**

Guadalupe Fur Seal (T) - X

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - X

Chinook Salmon EFH - X

Groundfish EFH - X

Coastal Pelagics EFH - X

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office**

**562-980-4000**

MMPA Cetaceans - X

MMPA Pinnipeds - X

Quad Name **San Francisco North**

Quad Number **37122-G4**

**ESA Anadromous Fish**

- SONCC Coho ESU (T) -
- CCC Coho ESU (E) - **X**
- CC Chinook Salmon ESU (T) -
- CVSR Chinook Salmon ESU (T) - **X**
- SRWR Chinook Salmon ESU (E) - **X**
- NC Steelhead DPS (T) -
- CCC Steelhead DPS (T) - **X**
- SCCC Steelhead DPS (T) -
- SC Steelhead DPS (E) -
- CCV Steelhead DPS (T) - **X**
- Eulachon (T) -
- sDPS Green Sturgeon (T) - **X**

**ESA Anadromous Fish Critical Habitat**

- SONCC Coho Critical Habitat -
- CCC Coho Critical Habitat - **X**
- CC Chinook Salmon Critical Habitat -
- CVSR Chinook Salmon Critical Habitat -
- SRWR Chinook Salmon Critical Habitat - **X**
- NC Steelhead Critical Habitat -
- CCC Steelhead Critical Habitat - **X**
- SCCC Steelhead Critical Habitat -
- SC Steelhead Critical Habitat -
- CCV Steelhead Critical Habitat -
- Eulachon Critical Habitat -
- sDPS Green Sturgeon Critical Habitat - **X**

**ESA Marine Invertebrates**

- Range Black Abalone (E) - **X**
- Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

- Black Abalone Critical Habitat -

**ESA Sea Turtles**

- East Pacific Green Sea Turtle (T) - **X**
- Olive Ridley Sea Turtle (T/E) - **X**
- Leatherback Sea Turtle (E) - **X**
- North Pacific Loggerhead Sea Turtle (E) - **X**

**ESA Whales**

- Blue Whale (E) - **X**

Fin Whale (E) - X  
Humpback Whale (E) - X  
Southern Resident Killer Whale (E) - X  
North Pacific Right Whale (E) - X  
Sei Whale (E) - X  
Sperm Whale (E) - X

**ESA Pinnipeds**

Guadalupe Fur Seal (T) - X  
Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - X  
Chinook Salmon EFH - X  
Groundfish EFH - X  
Coastal Pelagics EFH - X  
Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

MMPA Cetaceans - X  
MMPA Pinnipeds - X

Quad Name **Oakland West**

Quad Number **37122-G3**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -  
CCC Coho ESU (E) -  
CC Chinook Salmon ESU (T) -  
CVSR Chinook Salmon ESU (T) - X  
SRWR Chinook Salmon ESU (E) - X  
NC Steelhead DPS (T) -  
CCC Steelhead DPS (T) - X  
SCCC Steelhead DPS (T) -  
SC Steelhead DPS (E) -  
CCV Steelhead DPS (T) - X  
Eulachon (T) -  
sDPS Green Sturgeon (T) - X

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -  
 CCC Coho Critical Habitat -  
 CC Chinook Salmon Critical Habitat -  
 CVSR Chinook Salmon Critical Habitat -  
 SRWR Chinook Salmon Critical Habitat - **X**  
 NC Steelhead Critical Habitat -  
 CCC Steelhead Critical Habitat - **X**  
 SCCC Steelhead Critical Habitat -  
 SC Steelhead Critical Habitat -  
 CCV Steelhead Critical Habitat -  
 Eulachon Critical Habitat -  
 sDPS Green Sturgeon Critical Habitat - **X**

**ESA Marine Invertebrates**

Range Black Abalone (E) -  
 Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -  
 Olive Ridley Sea Turtle (T/E) -  
 Leatherback Sea Turtle (E) -  
 North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -  
 Fin Whale (E) -  
 Humpback Whale (E) -  
 Southern Resident Killer Whale (E) -  
 North Pacific Right Whale (E) -  
 Sei Whale (E) -  
 Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -  
 Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - **X**  
 Chinook Salmon EFH - **X**  
 Groundfish EFH - **X**  
 Coastal Pelagics EFH - **X**  
 Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office  
562-980-4000

Quad Name **Oakland East**

Quad Number **37122-G2**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - **X**

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat - **X**

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -  
Leatherback Sea Turtle (E) -  
North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -  
Fin Whale (E) -  
Humpback Whale (E) -  
Southern Resident Killer Whale (E) -  
North Pacific Right Whale (E) -  
Sei Whale (E) -  
Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -  
Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - **X**  
Chinook Salmon EFH - **X**  
Groundfish EFH - **X**  
Coastal Pelagics EFH - **X**  
Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

MMPA Cetaceans -

MMPA Pinnipeds - **X**

Quad Name **San Leandro**

Quad Number **37122-F2**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -  
CCC Coho ESU (E) -  
CC Chinook Salmon ESU (T) -  
CVSR Chinook Salmon ESU (T) -  
SRWR Chinook Salmon ESU (E) -  
NC Steelhead DPS (T) -  
CCC Steelhead DPS (T) - **X**  
SCCC Steelhead DPS (T) -  
SC Steelhead DPS (E) -  
CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat - **X**

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - **X**

Chinook Salmon EFH - **X**



Groundfish EFH - X

Coastal Pelagics EFH - X

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

Quad Name **Hayward**

Quad Number **37122-F1**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - X

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

- East Pacific Green Sea Turtle (T) -
- Olive Ridley Sea Turtle (T/E) -
- Leatherback Sea Turtle (E) -
- North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

- Blue Whale (E) -
- Fin Whale (E) -
- Humpback Whale (E) -
- Southern Resident Killer Whale (E) -
- North Pacific Right Whale (E) -
- Sei Whale (E) -
- Sperm Whale (E) -

**ESA Pinnipeds**

- Guadalupe Fur Seal (T) -
- Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

- Coho EFH - **X**
- Chinook Salmon EFH - **X**
- Groundfish EFH -
- Coastal Pelagics EFH -
- Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

Quad Name **Redwood Point**

Quad Number **37122-E2**

**ESA Anadromous Fish**

- SONCC Coho ESU (T) -
- CCC Coho ESU (E) -
- CC Chinook Salmon ESU (T) -
- CVSR Chinook Salmon ESU (T) -
- SRWR Chinook Salmon ESU (E) -
- NC Steelhead DPS (T) -
- CCC Steelhead DPS (T) - **X**
- SCCC Steelhead DPS (T) -
- SC Steelhead DPS (E) -
- CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat - **X**

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - **X**

Chinook Salmon EFH - **X**

Groundfish EFH - X

Coastal Pelagics EFH - X

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office**

**562-980-4000**

MMPA Cetaceans -

MMPA Pinnipeds - X

Quad Name **Milpitas**

Quad Number **37121-D8**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - X

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) - X

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat - X

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - X

**ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - X

Chinook Salmon EFH - X

Groundfish EFH - X

Coastal Pelagics EFH - X

Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**

Quad Name **San Jose West**

Quad Number **37121-C8**

**ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) - X

SCCC Steelhead DPS (T) -  
SC Steelhead DPS (E) -  
CCV Steelhead DPS (T) -  
Eulachon (T) -  
sDPS Green Sturgeon (T) -

**ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -  
CCC Coho Critical Habitat -  
CC Chinook Salmon Critical Habitat -  
CVSR Chinook Salmon Critical Habitat -  
SRWR Chinook Salmon Critical Habitat -  
NC Steelhead Critical Habitat -  
CCC Steelhead Critical Habitat - X  
SCCC Steelhead Critical Habitat -  
SC Steelhead Critical Habitat -  
CCV Steelhead Critical Habitat -  
Eulachon Critical Habitat -  
sDPS Green Sturgeon Critical Habitat -

**ESA Marine Invertebrates**

Range Black Abalone (E) -  
Range White Abalone (E) -

**ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

**ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -  
Olive Ridley Sea Turtle (T/E) -  
Leatherback Sea Turtle (E) -  
North Pacific Loggerhead Sea Turtle (E) -

**ESA Whales**

Blue Whale (E) -  
Fin Whale (E) -  
Humpback Whale (E) -  
Southern Resident Killer Whale (E) -  
North Pacific Right Whale (E) -  
Sei Whale (E) -  
Sperm Whale (E) -

**ESA Pinnipeds**

Guadalupe Fur Seal (T) -  
Steller Sea Lion Critical Habitat -

**Essential Fish Habitat**

Coho EFH - X  
Chinook Salmon EFH - X  
Groundfish EFH -  
Coastal Pelagics EFH -  
Highly Migratory Species EFH -

**MMPA Species (See list at left)**

**ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office  
562-980-4000**