



# STOCKTON **DIAMOND**

*Unlocking Northern  
California's Freight and  
Passenger Rail Potential*

## FINDING OF NO SIGNIFICANT IMPACT (FONSI)

*July 2022*



SAN JOAQUIN  
REGIONAL  
RAIL COMMISSION



CALIFORNIA  
High-Speed Rail Authority

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.



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# 1 Introduction

This document is the California High-Speed Rail Authority's (CHSRA) Finding of No Significant Impact (FONSI) under the National Environmental Policy Act (NEPA) for the San Joaquin Regional Rail Commission's (SJRRRC) Stockton Diamond Grade Separation Project (Project). CHSRA is the federal NEPA lead agency under what is commonly referred to as NEPA Assignment. More specifically, the environmental review, consultation, and other actions required of a federal lead agency by federal environmental laws for this Project are being or have been carried out by the State of California pursuant to 23 United States Code (U.S.C.) Section 327 and a Memorandum of Understanding (MOU) effective July 23, 2019, and executed by the Federal Railroad Administration (FRA) and the State of California (NEPA Assignment MOU) (FRA and State of California 2019). SJRRRC is the Project sponsor and joint lead agency under NEPA.

SJRRRC proposes to construct a flyover bridge structure at the intersection of the Burlington North Santa Fe (BNSF) Stockton Subdivision and Union Pacific Railroad (UP) Fresno Subdivision interchange, known as the Stockton Diamond Grade Separation Project (Project), in Stockton, California (Figure 1). The Project Study Area (Figure 2) is bordered by Weber Avenue to the north, Pilgrim Street to the east, Fourth Street to the south, and Grant Street to the west.

CHSRA and SJRRRC prepared the Final Environmental Assessment (EA) for the Project in July 2022. The EA was prepared in compliance with the National Environmental Policy Act of 1969 as amended (42 United States Code [USC] Sections 4321 et seq.), FRA Procedures for Considering Environmental Impacts (FRA Procedures) (64 Federal Register [FR] 28545 [May 26, 1999]) as modified by 78 Fed. Reg. 2713 (January 14, 2013), the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), Federal Highway Administration (FHWA)/Federal Transit Administration/Federal Railroad Administration (FTA)/FRA joint regulations implementing NEPA (23 CFR Part 771); Section 4(f) of the United States Department of Transportation Act (49 USC §303) and FHWA/FTA/FRA joint implementing regulations (23 CFR Part 774).

The EA evaluated and assessed the potential direct, indirect, and cumulative impacts on the human and natural environment resulting from the Project. The EA examined a Project Alternative and a No Action Alternative. CHSRA and SJRRRC selected the Project Alternative as the Preferred Alternative. CHSRA and SJRRRC made the Draft EA available to the public for review and comment from March 28 to April 27, 2022.

CHSRA has prepared this FONSI to comply with NEPA, CEQ's implementing regulations, FRA Procedures, Part 771, Section 4(f), Part 774, and related laws. CHSRA has produced this FONSI based on information included in the Draft and Final EA. The Final EA is incorporated by reference to this FONSI.



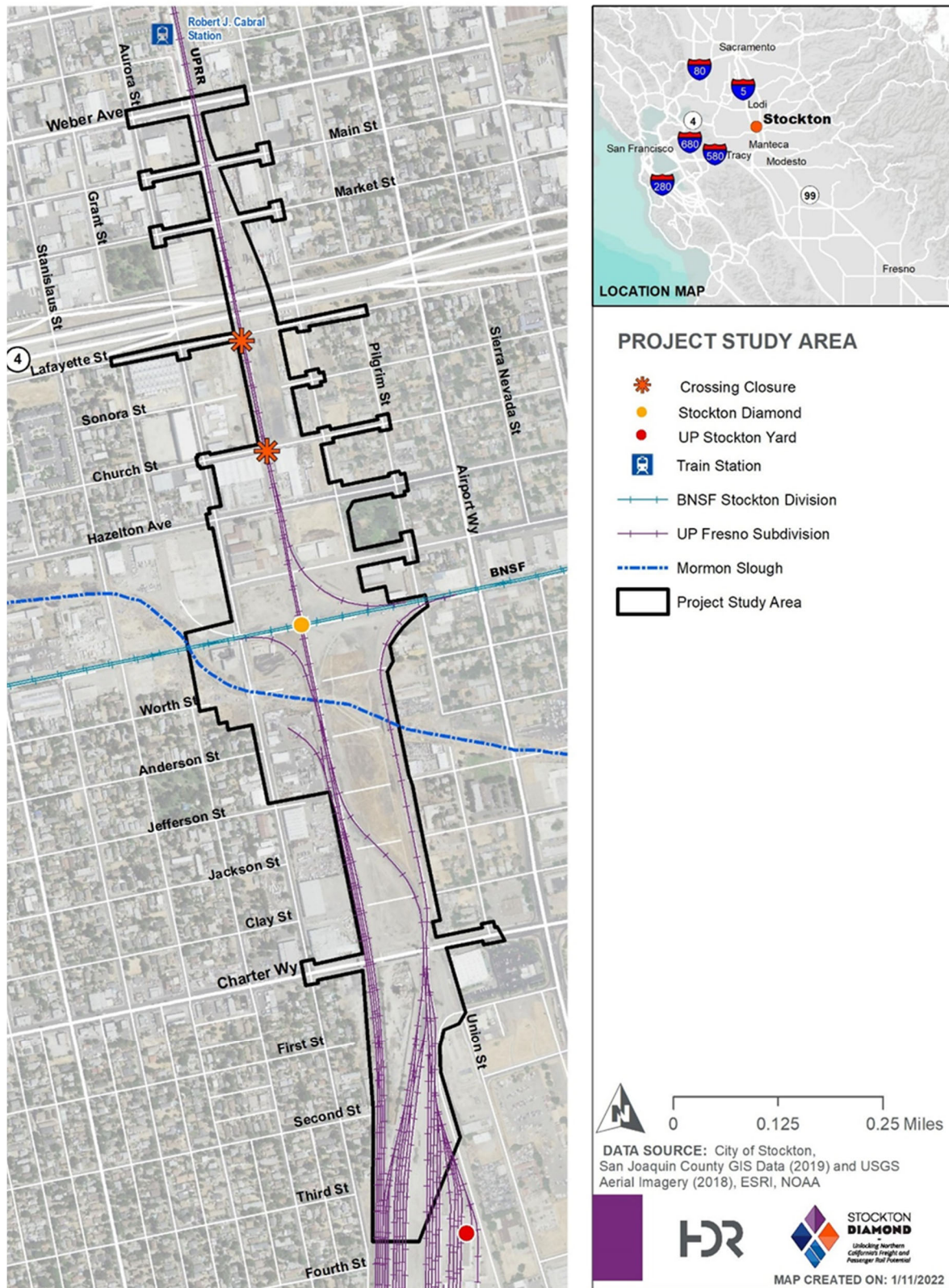
Figure 1: Project Area







Figure 2: Project Study Area





## 2 Project Description

The Project would replace the existing at-grade intersection of the BNSF Stockton Subdivision and UP Fresno Subdivision with a grade-separated structure (flyover bridge) that would elevate the UP main tracks over the BNSF main tracks, enabling through trains proceeding on the UP main tracks to travel unimpeded through the crossing, avoiding any conflict with trains on the BNSF main tracks (and vice versa). With the exception of the Stockton Wye, which UP already cleared environmentally as a separate project, and is scheduled to start construction in late 2022, the three existing connections between the two railroads would remain and function much as they do today, although their alignments would be modified to accommodate the development of the flyover bridge structure to reduce operating conflicts between trains on various other tracks within Stockton. With the BNSF main tracks staying at-grade and the UP main tracks elevated on the flyover, traffic conflicts and train staging, which currently occur as trains wait on one railroad's main track for trains using the other railroad's main track to pass through the Stockton Diamond crossing, would be substantially reduced.

The at-grade crossing of the UP and BNSF main tracks would be removed permanently, thereby removing the need for frequent signal and other maintenance associated with this at-grade crossing and eliminating the resulting train delays created while this crossing is shut down for these maintenance activities. New grade-separated crossings of the UP main line tracks are proposed for East Hazelton Avenue and East Scotts Avenue. The Project would retain a grade separation of East Charter Way.

Additionally, East Lafayette Street and East Church Street would be closed permanently as part of the Project. East Lafayette Street would be closed due to the multiple at-grade rail crossings of the at-grade main tracks and wye connection tracks (that is, four crossings within two blocks). In addition, East Church Street would be closed because it would not meet the UP/BNSF required minimum flyover vertical clearance for a vehicle crossing under the rail structure of 16.5 feet, and it would not be consistent with the American Association of State and Highway Transportation Officials' (AASHTO) design criteria for change in grade for a local roadway.

SJRRC will use funding that has already been secured from California Senate Bill 132 and the Interregional Transportation Improvement Program to match other project funds for this \$237 Million project. In September 2020, the United States Department of Transportation (USDOT) awarded a \$20 Million Better Utilizing Investments to Leverage Development (BUILD) grant for the Project. In December 2020, the California Transportation Commission (CTC) awarded a \$100 Million Trade Corridor Enhancement Program (TCEP) grant for the Project. While the federal BUILD grant has been applied for and awarded, funding has not yet occurred and is contingent upon the completion of this NEPA EA process.



## 3 Purpose and Need

### 3.1 Project Purpose

The purpose of the Project is to:

- Provide operational benefits that enhance existing passenger rail service and new service planned in the Valley Rail program, to support faster, more reliable passenger rail service linking residents to family, jobs, and recreational destinations throughout Northern California.
- Provide for an uninterrupted flow of rail through the crossing to improve passenger and freight movement, to improve regional passenger and freight rail efficiency and travel reliability, and Stockton residents' access, safety, and mobility across rail lines.
- Reduce delays for pedestrians and motorists at key local roadway-rail grade crossings, resulting in increased throughput, efficient goods movement, decreases in fuel consumption, and improvements in air quality by the reduction of greenhouse gas (GHG) emissions from trains and vehicles on roads that idle because of congestion and delays.

### 3.2 Project Need

Needs for the Project are based on the future growth anticipated in the region and existing and estimated future rail activity, including the Valley Rail and ACE*forward* programs, through the Stockton Diamond, the amount of time roadway and rail crossings are occupied to allow trains to pass, the resulting vehicular traffic and train delays, and safety concerns associated with at-grade crossings. Improvements that enhance railroad operating efficiency and safety are critical for the efficient movement of people and goods and to help economic conditions in Stockton and the region. Specifically, the Project is needed for the following reasons:

- **Freight and Passenger Rail Congestion.** High levels of freight and passenger rail activity cause train congestion. The Stockton Diamond is the busiest, most congested at-grade railway junction in California.
- **Freight and Passenger Rail Reliability.** Congestion and freight maintenance activities cause delays and poor reliability. The current at-grade configuration of the Stockton Diamond results in significant delays and poor reliability for BNSF and UP freight trains and for ACE and Amtrak San Joaquin's passenger trains. Local road traffic also experiences delays and poor reliability because of the amount of time the road crossings are occupied by trains.
- **Safety at Roadway-Rail Grade Crossings.** Multiple roadway-rail grade crossings and the BNSF-UP main line track at-grade crossings create conflict points that result in increased safety risks.





## 4 Alternatives

### 4.1 Alternatives Considered but Removed from Further Consideration

SJRRC worked closely with stakeholders to evaluate a broad range of alternatives. As described in Chapter 2, *Alternatives*, of the Final EA, four design concepts with several variations were considered by SJRRC; one of these design concepts was carried forward for study in the EA in addition to the No Action Alternative.

A grade separation can only be accomplished by changing the elevation of the main tracks for either BNSF, or UP, or both. Four high-level design concepts were identified at the beginning of the study as potential reasonable options to meet the purpose and need for the Project: Concept 1 (UP flyover with BNSF at grade), Concept 2 (BNSF flyover with UP at grade), Concept 3 (UP flyover with BNSF in trench), and Concept 4 (BNSF flyover with UP in trench). Design variations of these four primary concepts were developed during the concept screening process and presented to the host railroads. The variations included shifting the location of the proposed flyover alignment and revisions to the various track vertical grades. Design plans of these concepts and their variations are included in Appendix A, *Alternatives Eliminated from Further Consideration*, of the Final EA. Five key criteria drove the screening process for the four high-level concepts:

1. Ability to meet the Project's purpose and need
2. Acceptance by the host railroads, UP and BNSF
3. Minimization of local road crossing impacts
4. Avoidance and minimization of environmental impacts associated with the concept
5. Minimization of property acquisitions and displacements of residences and businesses

While SJRRC is the Project proponent, SJRRC serves as a tenant on the host railroad's tracks. The host railroads own the right-of-way and tracks/railroad infrastructure, and any improvements need to meet their design standards. Through substantial coordination and an iterative review process, freight railroad concurrence with the potential design concepts was an important screening criterion. UP and BNSF expressed technical feasibility concerns with the trench concepts: Concept 3 (UP flyover with BNSF in trench) and Concept 4 (BNSF flyover with UP in trench). Chapter 2 of the EA explains in further detail why Concepts 2, 3, and 4 were determined not to meet the need and purpose of the Project or why they could not reasonably be constructed.

### 4.2 Alternative 1: No Action

As discussed in Chapter 2, *Alternatives*, of the Final EA, the No Action Alternative was considered in the EA and analyzes what would happen if there are no Project improvements in comparison to the Action Alternative. The No Action Alternative was not selected because it would not meet the purpose and need of the Project. The No Action Alternative considers the impacts of conditions forecast by current plans for land use and transportation in the vicinity of the Project area, including planned improvements to future passenger rail infrastructure through the Future Year (2045).



Currently, under Existing Year (2019) conditions, trains operating on the BNSF and UP main lines at the Stockton Diamond consist of freight trains operated by BNSF and UP, ACE commuter passenger trains between Stockton and San Jose operated by SJRRC, and intercity Amtrak San Joaquin's passenger trains between Oakland/Sacramento and Bakersfield operated by the San Joaquin Joint Powers Authority (SJJPAA). In the Future Year (2045), it is anticipated that approximately 64 freight trains and 26 passenger trains will travel through the Stockton Diamond per day.

Under the No Action Alternative, the existing at-grade intersection of the BNSF Stockton Subdivision and UP Fresno Subdivision would not be replaced with a grade-separated structure that would elevate the UP main tracks above the BNSF main tracks. Therefore, trains operating on the BNSF Stockton Subdivision could not advance through the intersection without potential conflict with through trains operating on the UP Fresno Subdivision.

All existing connections between the two railroads would remain and function as they currently do, and no alignments would be modified. As a result, operating conflicts between trains on various routes through the Stockton Diamond would continue.

### 4.3 Alternative 2: Project

As discussed in Chapter 2, *Alternatives*, of the Final EA, the Project (Alternative 2) would construct a flyover structure to provide the vertical clearance required by both railroads to grade separate the existing crossing of the UP and BNSF tracks at the Diamond. The existing condition at the Stockton Diamond and a rendering of the proposed flyover is shown in Figure 3.

As it continues south, the flyover would begin to descend so that it conforms back to the existing track elevation south of the existing East Charter Way underpass and continues into the UP Stockton Yard. For rail services traveling north from the UP Stockton Yard, a turnout is proposed on the flyover beginning just north of East Charter Way to bring rail services that need to connect to the BNSF Stockton Subdivision to grade before reaching the Diamond. Once returning to grade, a new wye is proposed to allow these rail services to select between traveling east or west on the BNSF line.

East Main and East Market Streets would have new tracks running perpendicular through the street, east of the existing track crossing. The new tracks at East Weber Avenue, East Main Street, and East Market Street would require a modification to the roadway profile to accommodate the flat grades across the new tracks to tie back into the existing roadway. Those tie-ins would likely occur within 200 feet of the existing and new tracks. The new and existing tracks would also require upgrading the railroad crossing equipment to the most current UP/BNSF crossing guideline standards. Each new crossing would require evaluation to determine whether new flashing light signals, gate arms, signs, and pavement markings are needed. Depending on existing site conditions, improvements at the new crossing locations would tie into the existing pedestrian facilities, including placement of Americans with Disabilities Act (ADA)-required tactile walking surface indicators for the blind and vision impaired to indicate crossing locations. Street lighting would be assessed at each crossing to ensure lighting is adequate.



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**Figure 3: Existing Condition and Rendering of Proposed Flyover**  
*Existing Condition*



*With Project*





The Mormon Slough crosses the alignment just north of Anderson Street. A drainage structure would be constructed to span the Mormon Slough in that location. The preferred structure is a multi-cell, open-bottom culvert that would accommodate future flows consistent with the City of Stockton's Specific Plan for Mormon Channel (August 1989). The four pipe culverts under the existing UP Fresno Subdivision main tracks immediately downstream (west) of the flyover alignment would be left in place to support the remaining at-grade connection track to BNSF.

In conjunction with the shifted flyover alignment, portions of the existing at-grade UP tracks would be reconstructed to meet railroad design requirements, modify existing connections, and conform to the proposed flyover. Detailed information regarding track configuration is provided in **Error! Reference source not found.**

**Table 1: Existing and Proposed Rail Facilities**

Street	Existing UP Rail Facilities	Proposed Configuration with Project
East Weber Avenue	3 tracks	3 new tracks – 2 main tracks, one connector track <sup>a</sup>
East Main Street	3 tracks	3 new tracks – 2 main tracks, one connector track <sup>a</sup>
East Market Street	2 tracks	4 new tracks – 2 main tracks, 1 connector track, 1 crossover
East Lafayette Street <sup>a</sup>	2 tracks	3 tracks – 2 new main tracks, 1 connector track <sup>a</sup>
East Church Street	2 tracks	4 tracks – 2 new main tracks, 1 connector track, 1 crossover track <sup>a</sup>
East Hazelton Avenue	3 tracks- 2 tracks and wye track; UP Stockton Wye project adds future wye track to existing main track <sup>b</sup>	3 tracks – 2 main tracks on flyover structure, 1 connector at-grade track
East Scotts Avenue	4 tracks - 2 tracks and 2 wye tracks	4 tracks – 2 new main tracks on flyover structure, 2 new wye at-grade tracks
East Charter Way	6 tracks - 4 tracks and another set of 2 tracks crossing overhead on existing grade-separated crossings	4 tracks – 2 new main tracks on new bridge; yard connection track on new bridge; replacement of 4 existing grade-separated tracks with single connector track

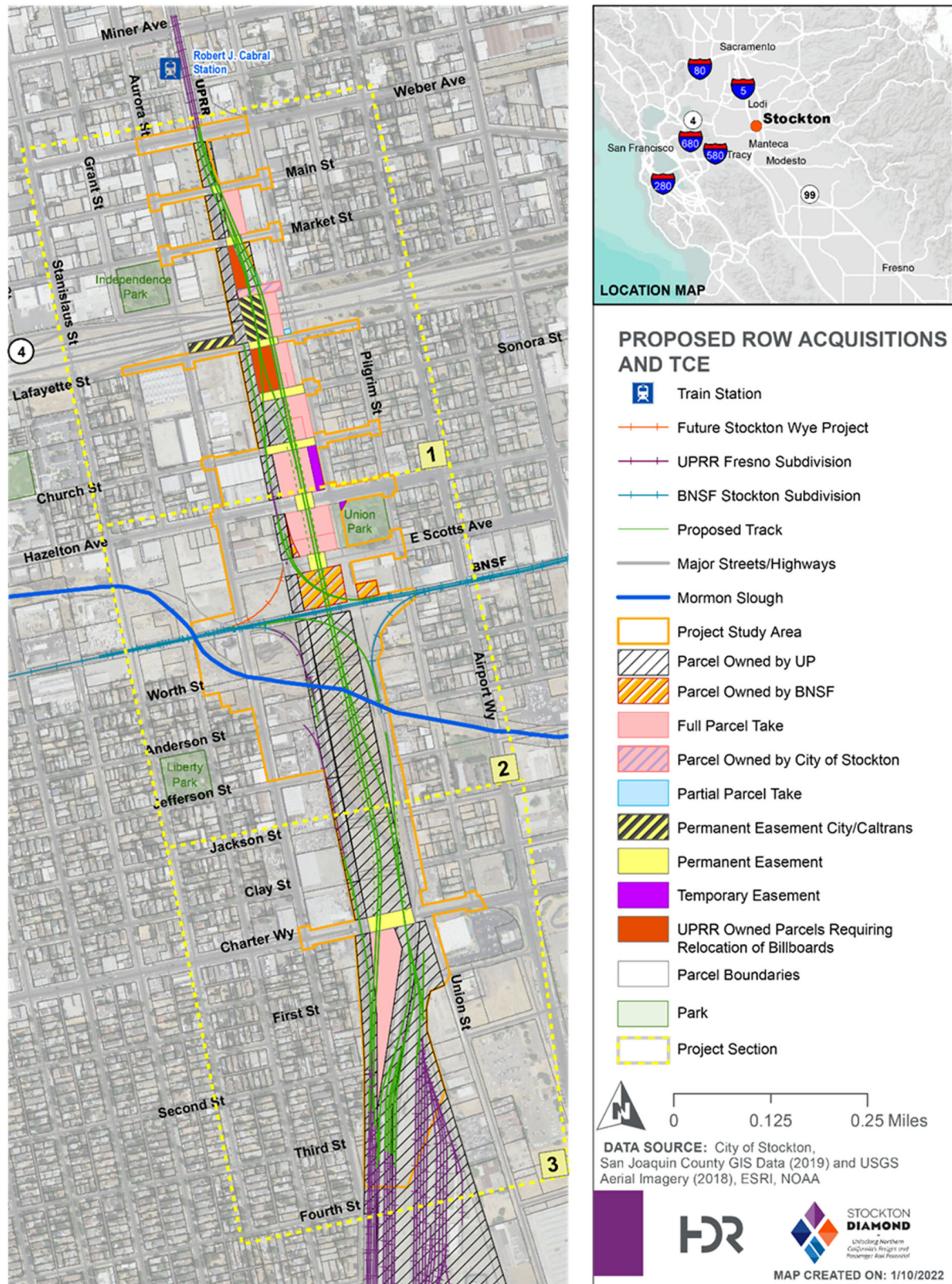
#### 4.3.1 PROPOSED RIGHT-OF-WAY ACQUISITIONS AND TEMPORARY CONSTRUCTION EASEMENTS

Full and partial right-of-way (ROW) acquisitions and temporary construction easements (TCE) would be required for the Project. As shown in Figure 4, two parcels would require TCEs for Project construction and 16 parcels would require full or partial acquisition.





Figure 4: Proposed Right-of-Way Acquisitions and Temporary Construction Easements





Seven of the 16 are existing active businesses that will require full acquisition and displacement as part of the Project. Refer to Section 3.3, *Relocations and Real Property Acquisition*, of the Final EA for additional information of parcels that will require TCEs or full and/or partial acquisition.

#### 4.3.2 UTILITY RELOCATIONS

Utility relocation or protection-in-place of existing utilities would be necessary during construction. The impacted utility agencies include the following:

- AT&T
- California Water Service Company (Cal Water)
- Century Link/Level 3
- City of Stockton Sewer and Storm Drain
- Level 3
- Verizon
- PG&E Gas and Electric
- Sprint

For detailed utility maps for these utility agencies, refer to Appendix E, *Utilities Exhibits*, of the Final EA. For additional information regarding utility relocations during construction, refer to Section 3.6, *Utilities and Emergency Services* in the Final EA.

#### 4.3.3 FLYOVER STRUCTURE TYPES

The EA evaluated three structure types for the flyover bridge as the bridge type has not yet been selected. In conjunction with railroad and stakeholder input, a preferred structure type will be selected during the next phase of the Project. The three structure types evaluated in the EA are:

- **Soil embankment.** Soil embankment is the railroad's preferred choice and is characteristic of a natural aesthetic quality. This option would be low maintenance; however, maintenance on the embankment slope would be necessary. Of the three options considered, soil embankment would require the largest permanent footprint and large quantities of fill to be delivered. It is estimated that this concept would require approximately 484,000 cubic yards (CY) of fill. The soil embankment option would potentially provide access for trespassers; however, fencing would mitigate that risk. Potential issues associated with soil embankment include slope instability and settlement, vegetation impacts and impacts on buried utilities.







- **Precast concrete panel system with lightweight cellular concrete fill (LCCF).** LCCF consists of a large vertical wall, which would be a highly resilient system and would serve as a barrier to trespassers. Fencing would also mitigate risk from trespassing and provide additional safety and security. As it relates to seismic safety, this system would be seismically stable and resilient compared with other options. The LCCF would be a low-maintenance option over the life of the structure. Panels that may become damaged could be replaced with minimal impact to the wall. Additionally, there would be a minimal permanent footprint. Lightweight fill replacement would require minimal crews, and truck delivery of fill would be significantly lower than for soil embankment and other retaining wall options. This option would require approximately 324,000 CY of lightweight fill. The design of the LCCF could be stepped with a bottom outset, or with other architectural features to make it appear less imposing to pedestrians. Issues associated with this option include the potential for graffiti and vandalism.
- **Viaduct bridge structure.** The viaduct bridge structure would create an open aesthetic and would not create a significant barrier across the community. The total estimated fill would be approximately 73,000 CY, less than both the LCCF and soil embankment options. However, high short-term environmental impacts during construction (drilling holes for shafts, carrying away debris, delivering and placing concrete and reinforcement) would be anticipated. The viaduct bridge structure would require a complex seismic analysis and increased risk to the railroad under seismic loads.



#### 4.3.4 CONSTRUCTION OF THE PROJECT

Construction of the Project would take approximately 36 months, regardless of the bridge structure type selected. For all design options, pile driving is assumed only for the bridge foundations.

#### 4.3.5 MAINTENANCE OF THE PROJECT

Future track maintenance activities in the Project area would be very similar to current maintenance activities. The amount and type of railroad track would be about the same, and regular inspections and maintenance of the tracks would occur in the future just as they do today. Track inspection occurs at least as often as required for this class of track in accordance with FRA regulations.

The two primary differences between existing maintenance and future maintenance would be the at-grade diamond crossing itself and the structures associated with the new flyover. Current



maintenance of the diamond crossings consists of routine repairs and likely complete replacement every 10 years or so given the high wear associated with this special track work. In the future, with the Project, these maintenance activities would no longer be required. Future maintenance with the proposed bridges and structures associated with the flyover alignment would involve routine inspections. However, similar to new track, newly built structures are not expected to require maintenance activities for many years after they are open to railroad traffic. Therefore, less maintenance activity would be anticipated for newly built track and structures than with older track and structures. Future maintenance detail is outlined in Chapter 2 of the Final EA.

## 5 Selected Alternative

The Selected Alternative for the Project is Alternative 2, as described above, and in further detail in Chapter 2, *Alternatives*, of the Final EA. Alternative 2 best meets the purpose and need of the Project. The Selected Alternative reduces freight congestion, while minimizing impacts to the environment and surrounding community. Therefore, CHSRA, as lead agency under NEPA, with the Project sponsor, SJRRC, have identified Alternative 2 as the Selected Alternative. A complete detailed discussion of the elements of Alternative 2 is provided in Chapter 2, *Alternatives*, of the Final EA.

## 6 Environmental Consequences

Based upon the EA, CHSRA has concluded the Selected Alternative will have no foreseeable significant impact on the quality of the natural and human environment. CHSRA finds the Selected Alternative is best able to achieve the Project's purpose and need without significant environmental impacts.

### 6.1 NEPA Effects

Chapters 3.1 through 3.15 of the Final EA provide an assessment of whether the Project would have: (1) no effect, (2) no adverse effect, (3) an adverse effect, or (4) a beneficial effect on environmental resources. Further description of each type of effect used in the NEPA analysis is provided below:

- **No Effect:** The alternative would not alter the environmental status quo.
- **No Adverse Effect:** The alternative would result in an effect to the environmental resource; however, the effect would not be adverse, and no mitigation is proposed.
- **Adverse Effect:** The alternative would negatively affect the environmental resource value or quality as it currently exists prior to the Project. Adverse effects are qualified as negligible, moderate, or substantial.
- **Beneficial Effect:** The alternative would improve the resource area or quality as it exists prior to implementation.



NEPA requires federal agencies to identify potentially significant adverse effects and discuss potential measures to mitigate those effects. Each sub-chapter of Chapter 3, *Environmental Resources, Effects, and Mitigation*, in the Final EA, identifies proposed Best Management Practices (BMP) that are incorporated as part of the Project to potentially avoid and/or minimize potential effects, so that no adverse effects would occur, and mitigation measures (MM) to mitigate potentially adverse effects of the proposed Action in accordance with NEPA regulations (40 CFR Section 1508.20).

As described in the Final EA, the Project will not result in adverse effects in the following resource areas because of the BMPs identified for these resources:

- *Community Effects and Growth* (Section 3.2 of the Final EA)
- *Parks and Recreation and Section 4(f) Resources* (Section 3.4 of the Final EA)
- *Environmental Justice* (Section 3.5 of the Final EA)
- *Utilities and Emergency Services* (Section 3.6 of the Final EA)
- *Traffic, Transportation, Pedestrian, and Bicycle Facilities* (Section 3.7 of the Final EA)
- *Visual Quality and Aesthetics* (Section 3.8 of the Final EA)
- *Cultural Resources* (Section 3.9 of the Final EA)
- *Geology, Soils, Seismicity, and Paleontology* (Section 3.11 of the Final EA)
- *Hazardous Waste and Materials* (Section 3.12 of the Final EA)
- *Air Quality* (Section 3.13 of the Final EA)

A complete list of BMPs that will be incorporated by SJRRC is provided in the Final EA, Table R-1, in Appendix R, *Environmental Commitments Record* (attached hereto as Attachment A). With the incorporation of these BMPs, no mitigation is proposed for the above resources. Therefore, these resources are not discussed in further detail in this FONSI.

The remaining environmental resource topics were determined to have a moderate adverse effect without the implementation of mitigation measures. Because the Project would negatively affect the environmental resource value or quality as it currently exists prior to the Project, a brief detailed discussion has been provided in Table 2.

Table 2 summarizes the potential direct or indirect short-term and long-term adverse effects, the level of the adverse effect (negligible, moderate, or substantial), and identifies the associated mitigation measures (MMs) that will be implemented as part of the Project. Additionally, a complete list of MMs that will be incorporated by SJRRC is provided in the Final EA, Table R-2, in Appendix R, *Environmental Commitments Record* (attached hereto as Attachment A).

As indicated below, the potential direct or indirect short-term and long-term adverse effects were found to be moderate.





Table 2: Resource Topics Determined to Have an Adverse Effect without the Implementation of Mitigation Measures

Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
<b>Land Use and Planning</b> (Section 3.1 of the Final EA)	<p><b>Short-term Effects</b></p> <p>No short-term effects are anticipated on land use and planning are anticipated.</p> <p><b>Long-term Effects</b></p> <p>The Project would permanently convert several industrial parcels (all are zoned General Industrial) to a transportation use, reducing the available industrial land use in the area by 10.87 acres. Additionally, the Project would require minor changes to existing land use designations in the City of Stockton, which would result in direct moderate adverse effects due to the inconsistencies with the existing land use designations. However, implementation of MM LU-1 (General Plan Amendment) will mitigate the moderate adverse effects by ensuring that the new land use designations will be captured within the City's General Plan through a general plan amendment. Therefore, with the implementation of MM LU-1 (General Plan Amendment), no direct or indirect long-term adverse moderate effects are anticipated under the Project.</p>	<b>MM LU-1 (General Plan Amendment)</b>
<b>Relocation and Real Property Acquisition</b> (Section 3.3 of the Final EA)	<p><b>Short-term Effects</b></p> <p>Two parcels will require TCEs during Project construction, Union Park and a vacant parcel. TCE areas will be restored to previous conditions once Project construction is complete. Therefore, no direct or indirect short-term adverse effects on real property will occur.</p> <p><b>Long-term Effects</b></p> <p>The Project will result in direct long-term moderate adverse effects due to 12 full acquisitions and two partial acquisitions</p>	<p><b>MM RLC-1 (Relocation Assistance)</b></p> <p><b>MM RLC-2 (Property Ownership and Agreement Coordination Efforts)</b></p>



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>of real property consisting of partially vacant parcels used for truck and RV parking and seven active businesses.</p> <p>The seven existing active businesses will require full acquisition and displacement as part of the Project. The five remaining parcels will be fully acquired which consist of one City owned truck and RV parking lot, two Caltrans owned truck and RV parking lots, one privately owned truck and RV parking lot that appears to not be operational, and a vacant lot.</p> <p>Additionally, there are two parcels that would be partially acquired as part of the Project. However, the partial acquisitions of these two parcels would not change the functionality of their existing use and not result in long term adverse effects. The Project's direct long-term moderate adverse effect on real property and relocations as a result of full and partial property acquisitions would be mitigated through the implementation of Measure MM RLC-1 (Relocation Assistance), which specifies that all displaced properties will be offered relocation assistance to set up operations in another location and there would be fair compensation for the loss of private industrial property.</p> <p>Remnant portions of existing parcels may result from the permanent acquisition of existing parcels as part of the Project, which may result in indirect long-term moderate adverse effects in the absence of mitigation. These direct effects on real property from remnant properties would be mitigated through the implementation of Measure MM RLC-2 (Property Ownership and Agreement Coordination Efforts), which require SJRRC to coordinate with the City of Stockton and UP to determine appropriate property ownership and establish agreements prior to the ROW acquisition process for these parcel remnants. Implementation of Measure MM RLC-2 (Property Ownership and Agreement Coordination Efforts) will help avoid the potential of moderate adverse</p>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>effects from large open space areas becoming voids in the Downtown area fabric.</p> <p>Based on the discussion above, with the implementation of Measures MM RLC-1 (Relocation Assistance) and RLC-2 (Property Ownership and Agreement Coordination Efforts), no direct or indirect long-term adverse effects on real property would occur as a result of the Project</p>	
<b>Hydrology, Floodplain, and Water Quality</b> (Section 3.10 of the Final EA)	<p><b>Short-term Effects</b></p> <p>According to the FEMA Flood Insurance Rate Maps (FIRM), Mormon Slough is located in a 100-year floodplain. Potential short-term adverse effects on Mormon Slough may result from construction access and excavation activities required for the proposed box culverts. Since the construction of the Stockton Diverting Canal, Mormon Slough is dry most of the year and receives water mainly through surface runoff during large storm events. The Project would require an encroachment permit from Central Valley Flood Protection Board (CVFPB) for work in and adjacent to Mormon Slough, as identified in BMP HYD-1 (Stormwater Management). Prior to construction, the contractor will prepare a flood protection plan to ensure proper floodplain protection measures are in place during construction, as identified in BMP HYD -2 (Floodplain Protection), as well as a treatment plan for water quality and floodplain effects. Additionally, the proposed Project will prepare a stormwater pollution prevention plan (SWPPP), as identified in BMP HYD-3 (Construction SWPPP), which documents erosion and sediment control BMPs that will be utilized during construction to minimize effects to floodplains and water quality. With the incorporation of BMP HYD-1, BMP HYD-2, and BMP HYD-3 no direct or indirect, short-term, adverse effects on hydrology and floodplains are anticipated.</p>	<p><b>BMP HYD-1 (Stormwater Management and Treatment Plan)</b></p> <p><b>BMP HYD-2 (Flood Protection)</b></p> <p><b>BMP HYD-3 (Construction Stormwater Pollution Prevention Plan)</b></p> <p><b>BMP HYD-4 (Industrial Stormwater Pollution Prevention Plan)</b></p> <p><b>BMP HYD-5 (Drainage Report)</b></p> <p><b>MM BIO-2 (National Oceanic and Atmospheric Administration Consultation)</b></p>



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>Project construction would require disturbances within Hydrologic Sub-Area 531.3. The designated beneficial uses for Hydrologic Sub-Area 531.3 are MUN, COLD, MIGR, and SPWN. No direct or indirect short-term effects will occur on MUN or GWR beneficial uses under the Project. However, COLD, MIGR, and SPWN beneficial uses may result in short-term moderate adverse effects on important habitat characteristics within the Mormon Slough during the construction phase.</p> <p>As discussed within Section 3.15, <i>Biological Resources</i>, of the Final EA, the Biological Study Area (BSA) is located within federally designated critical habitat for Central Valley steelhead and green sturgeon. During Section 7 consultation, the National Marine Fisheries Service (NMFS) determined that the Project is “not likely to adversely affect” either species based on Project design commitments. The Project will implement MM BIO-2 (National Oceanic and Atmospheric Consultation) which requires implementation of all commitments and avoidance and minimization measures identified during Section 7 consultation.</p> <p>Additionally, the Project will incorporate BMP HYD-3 (Construction SWPPP) which documents erosion and sediment control BMPs utilized during construction to minimize effects to floodplains and water quality in compliance with the Construction General Permit (CGP) and BMP HDY-4 (Industrial SWPPP) in compliance with the Industrial General Permit (IGP) to minimize short-term effects on surface waters and water quality. Therefore, with the incorporation of BMP HYD-3 and BMP HYD-4, and the implementation of Measure MM-BIO-2, no adverse, short-term effects on surface waters and water quality are anticipated.</p>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p><b><i>Long-term Effects</i></b></p> <p>A permanent drainage structure would be constructed to span the Mormon Slough just south of the existing pipe culverts. Hydraulic analyses within the slough would be conducted prior to determining the final design of the proposed drainage structure using three separate criteria further detailed in Section 3.10, <i>Hydrology, Floodplain, and Water Quality</i>, of the Final EA. The Project will be designed to allow for current and both projected future flow cases but would leave the existing Fresno Subdivision culverts in place.</p> <p>Drainage structures for passing flows beneath the railroad flyover may be box culverts, arch openings, or a bridge. The Project will incorporate BMP HYD-5 (Drainage Report) which will require a site-specific drainage report be prepared during final design to ensure that any structure designed for this location will be designed for both existing conditions and proposed future conditions, provided by San Joaquin Area Flood Control Agency (SJAFA) and the City of Stockton. Box culverts or arch openings would require fill within the existing dry channel, but since it is a dry channel, direct and indirect, long-term, adverse effects to storm water and water quality are not anticipated under the Project.</p> <p>As previously discussed, Mormon Slough has been identified for the following beneficial uses: COLD, MIGR, SPWN. The Project may result in long term, moderate adverse effects to the beneficial uses: COLD, MIGR, SPWN within Mormon Slough and HSA 531.3. The Project will implement Measure MM BIO-2 (National Oceanic and Atmospheric Consultation) which requires SJRRC to implement a crossing type for the flyover structure that will span the Mormon Slough so that it can retain a natural substrate stream channel bottom, as well as avoid using rip-rap to armor the channel at this location to mitigate potential long-term adverse effects to important</p>	





Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	habitat characteristics within the Mormon Slough. Therefore, with the incorporation of BMP HYD-5 (Drainage Report) and the implementation of MM BIO-2 (National Oceanic and Atmospheric Consultation), potential long term, moderate adverse effects will not occur to hydrology and floodplains.	
<b>Noise and Ground-borne Vibration</b> (Section 3.14 of the Final EA)	<p><b>Short-term Effects</b></p> <p>The Project will require pile driving operations for sections of bridge at the center of the flyover and at East Charter Way for the embankment and retaining wall design options, while the viaduct option will require pile driving along the entire length of the flyover which may result in short-term adverse effects. Extensive pile driving is not anticipated to occur adjacent to sensitive receptors. As a result, the Project will incorporate BMP NV-1 (Noise Control Plan), which requires that a Noise Control Plan be prepared and incorporate best practices into the construction scope of work and specifications to reduce the impacts of temporary construction-related noise on nearby noise sensitive receptors. The Noise Control Plan will be developed in coordination with the City of Stockton in compliance with City standards. Therefore, with the incorporation of BMP NV-1, no direct or indirect short-term adverse impacts related from noise would occur under the Project, as these noise impacts will be fully minimized with the incorporation of that BMP.</p> <p>Pile driving operations may also result in ground-borne vibration effects to receptors. As discussed in Section 3.14, <i>Noise and Ground-borne Vibration</i>, of the Final EA. The FTA methodology identifies three land use category groups, with category 1 being the most sensitive receptors and category 3 being the least sensitive. There are no Category 1 receptors within the ground-borne vibration RSA, as discussed within Section 3.14, <i>Noise and Ground-borne Vibration</i>, of the Final EA, that could experience construction-related vibration</p>	<p><b>BMP NV-1 (Noise Control Plan)</b></p> <p><b>BMP NV-2 (Vibration Control Plan)</b></p> <p><b>MM NV-1 (Reduction for Severe Noise Impacts)</b></p>



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>annoyance impacts based on Federal Transit Administration (FTA) methodology. However, the Project will incorporate BMP NV-2 (Vibration Control Plan) which requires that a Vibration Control Plan that incorporates best practices into the construction scope of work and specifications be prepared to reduce the impacts of temporary, construction-related vibration on nearby vibration-sensitive land uses. Therefore, with the incorporation of BMP NV-2, no direct or indirect short-term adverse impacts related to ground-borne vibration would occur under the Project, as these ground-borne impacts would be fully minimized through the incorporation of that BMP.</p> <p><b>Long-term Effects</b></p> <p>Although long-term noise levels at many locations are anticipated to decrease as a result of the Project, four residential receptors on East Lafayette Street to East Hazelton Avenue and five residential receptors East Anderson Street to East Charter Way are anticipated to experience moderate noise impacts. Receptors between East Lafayette Street and East Hazelton Avenue will experience increased noise due to the main line tracks moving closer to the residences and the elevated height of the main line flyover. The five receptors located south of the Stockton Diamond, between East Anderson Street and East Charter Way, will experience noise impacts as result of the operation of new, elevated connecting tracks (approximately 2 to 4 feet above grade) shifted closer to sensitive receptors at the eastern side of the railroad corridor and the new, elevated main track flyover as it approaches its highest elevation point at the Diamond. Two moderate noise effects will occur at institutional receivers—Faith Tabernacle Assembly, located on East Anderson Street, and the Islamic Center of Stockton, located on South Pilgrim Street.</p>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>Per FTA guidelines, since the change in noise levels at the moderate impact locations fall under approximately 2db from the severe impact range, mitigation would not be required at these locations. Only receptors that would experience severe impacts would require mitigation measures.</p> <p>Twelve single-family homes located between East Jefferson Street and East Clay Street, and between the railroad corridor and South Pilgrim Street would experience severe noise effects and require noise mitigation. Because of engineering and operational limitations of the Project, including the multiple levels of the proposed tracks, track turnouts and clearance issues, noise barriers would not be a feasible option for noise mitigation. Therefore, the Project will implement MM NV-1 (Reduction for Severe Noise Impacts), requiring that sound insulation improvements be installed at the 12 residential homes that would be exposed to severe noise impacts.</p> <p>Sound insulation programs are developed to reduce the interior noise levels in sleeping and living quarters in residential land uses or in noise-sensitive areas. Interior noise levels for residential land uses should not exceed a Ldn of 45 dBA, and a form of fresh air exchange must be maintained, per U.S. Department of Housing and Urban Development guidelines. Sound insulation testing would be conducted to determine the appropriate measures to improve the outdoor to indoor sound level reduction, such as improved windows, doors or vents. Therefore, with the implementation of MM NV-1, no direct or indirect adverse long-term impacts on sensitive noise receptors from operational noise would occur, as the severe noise impacts would be fully mitigated under the Project.</p>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
<b>Biological Resources</b> (Section 3.15 of the Final EA)	<p><b>Short-term Effects</b></p> <p><b>SPECIAL-STATUS SPECIES, INCLUDING MIGRATORY BIRDS</b></p> <p>None of the fourteen federally listed or candidate plant and wildlife species are expected to occur in the Project BSA because of the limited types of habitat in the BSA; however, the BSA and immediate surroundings provide potential habitat for nesting, wintering, and/or foraging habitat for migratory birds and raptors. The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) identifies Incidental Take Avoidance Measures for various classifications of nesting birds that the BSA has potential to support. The Project will incorporate BMP BIO-1 (Biological Monitor and Environmental Awareness Training) which requires SJRRC ensures a qualified biologist will monitor construction activities that could affect special status species and/or sensitive biological resources within the BSA. Additionally, the Project will incorporate BMP BIO-2 (Migratory Bird and Raptor Surveys and Nest Avoidance) that will require the Project to conduct pre-construction surveys if construction is scheduled to occur during nesting season (February 1 through September 15) and establish no-disturbance buffers if active nests are located. Implementation of MM BIO-1 (Compliance with SJMSCP), which requires SJRRC to ensure compliance with applicable Incidental Take Minimization Measures (ITMM) identified in the SJMSCP. Therefore, no direct, short-term, moderate adverse effects on special-status species, such as migratory birds and raptors, would occur under the Project.</p> <p><b>CRITICAL HABITAT AND ESSENTIAL FISH HABITAT</b></p> <p>The Project would result in potential direct, short-term, moderate adverse effects on up to 0.39 acre of Central Valley steelhead critical habitat and Chinook salmon</p>	<p><b>BMP BIO-1</b> (Biological Monitor and Environmental Awareness Training)</p> <p><b>BMP BIO-2</b> (Migratory Bird and Raptor Surveys and Nest Avoidance)</p> <p><b>BMP BIO-3</b> (Construction BMPs at Mormon Slough)</p> <p><b>BMP BIO-4</b> (Environmentally Sensitive Area Fencing at Mormon Slough)</p> <p><b>BMP BIO-5</b> (Restoration of Temporarily Affected Areas)</p> <p><b>BMP BIO-6</b> (Vehicle Access and Speed Limits)</p> <p><b>BMP BIO-7</b> (Storage and Disposal of Excavated Materials)</p> <p><b>BMP BIO-8</b> (Prevention of Invasive Species During Construction)</p> <p><b>MM BIO-1</b> (Compliance with SJMSCP)</p> <p><b>MM BIO-2</b> (National Oceanic and Atmospheric Consultation)</p> <p><b>MM BIO-3</b> (Mitigation for Aquatic Resources)</p> <p><b>MM BIO-4</b> (Compliance with Permitted Mitigation Measures)</p> <p><b>MM BIO-5</b> (Preparation of Formal Jurisdictional Delineation)</p>





Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>Essential Fish Habitat (EFH) as a result of construction access during construction of the Mormon Slough flyover. However, the Project will incorporate the following BMPs to avoid or minimize potential adverse effects to water quality habitat areas:</p> <ul style="list-style-type: none"><li>• BMP BIO-3 (Construction BMPs at Mormon Slough) which will require construction BMPs at Mormon Slough to prevent site erosion or runoff of loose dust or soil;</li><li>• BMP BIO-4 (Environmentally Sensitive Area Fencing at Mormon Slough) that will require all work areas, during construction, be reduced to the smallest footprint practicable and determine staging areas be located in areas with the least amount of effects to sensitive biological resources;</li><li>• BMP BIO-5 (Restoration of Temporarily Affected Areas) will ensure that all exposed or disturbed areas will be returned to the original grade, contour, and local native vegetation.</li><li>• BMP BIO-6 (Vehicle Access and Speed Limits) will ensure that all construction vehicle traffic be limited 15 miles per hour and be confined to established roads, staging areas, and parking areas to avoid and reduce.</li><li>• BMP BIO-7 (Storage and Disposal of Excavated Materials) that will require SJRRC, where practicable, return stored excavated soil to its original location to be used as backfill as well as ensure stockpiled, disassembled, and hazardous construction material be stored at least 100 feet away from aquatic resources, when possible.</li><li>• BMP BIO-8 (Prevention of Invasive Species During Construction) will ensure construction equipment is clean prior to entering environmentally sensitive areas as well as use eradication strategies to avoid the spread of invasive weeds during construction.</li></ul>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>The Project will also implement MM BIO-2 (National Oceanic and Atmospheric Consultation) which requires implementation of all commitments and avoidance and minimization measures identified during Section 7 consultation to mitigate the potential direct, short-term, moderate adverse effects. NMFS, as a result of Section 7 consultation, issued a “not likely to adversely affect” determination for the Project on May 17, 2021, with regard to Central Valley steelhead and its critical habitat and the southern distinct population segment of North American green sturgeon and its critical habitat. It also determined that the Project would have “no adverse effect” on EFH for chinook salmon or groundfish. Based on the discussion above, no direct or indirect, short-term, moderate adverse effects on critical habitat and EFH will result under the Project with the incorporation of BMP BIO-3 through BMP BIO-8 and the implementation of Measure MM BIO-2 to water quality of habitat areas.</p> <p><b>JURISDICTIONAL WATERS</b></p> <p>A review of aerial and street view imagery indicates that there are approximately 1.41 acres of non-wetland waters of the US subject to Clean Water Act (CWA) Section 404 and 401 jurisdiction. No federally protected wetlands as defined by CWA Section 404 are located within the BSA.</p> <p>During construction, the Project would result in direct, short-term, moderate adverse effects on up to 0.33 acre of potential non-wetland waters of the US, as a result of culvert or bridge construction, depending on the flyover design option selected.</p> <p>The Project will incorporate BMP BIO-3 through BMP BIO-8, as identified above, to ensure no indirect, short-term, adverse effects on waters of the US would occur outside of the Project Study Area. With the implementation of Measure</p>	



Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>MM BIO-3 (Mitigation for Aquatic Resources), which requires that temporary Project effects on aquatic resources associated with the Mormon Slough will be restored in-place while permanent Project effects on aquatic resources to the Mormon Slough will be mitigated at a minimum 1:1 ratio, no direct, short-term, moderate effects on waters of the US would result under the Project.</p> <p>Therefore, with the incorporation of BMP BIO-3 through BMP BIO-8 and the implementation of Measure MM BIO-3, no direct or indirect, short-term, moderate adverse effects on jurisdictional areas would result under the Project.</p> <p><b>Long-term Effects</b></p> <p><b>SPECIAL-STATUS SPECIES, INCLUDING MIGRATORY BIRDS</b></p> <p>Migratory birds and raptors have the potential to nest throughout the BSA. However, long-term operation and maintenance of the Project is not expected to differ substantially from existing operations. In the event that active migratory bird or raptor nests are present within the BSA during operation of the Project, BMP BIO-2 (Migratory Bird and Raptor Surveys and Nest Avoidance) will be incorporated to minimize potential direct long-term effects. Additionally, the Project would result in habitat loss for migratory nesting birds and raptors. However, these direct and indirect, long-term, moderate adverse effects would be mitigated with the implementation of Measure MM BIO-1 (Compliance with SJMSCP) which ensure compliance with the SJMSCP as well all applicable ITMM identified in the SJMSCP.</p> <p>With the incorporation of BMP BIO-2 and the implementation of Measure MM BIO-1, no direct or indirect, long-term, moderate adverse effects on special-status species, including migratory birds, would result under the Project.</p>	



#### **CRITICAL HABITAT AND ESSENTIAL FISH HABITAT**

As discussed previously, three flyover design options have been developed for the structure spanning Mormon Slough that may affect critical habitat and downstream water quality. With the incorporation of BMP BIO-3 (Construction BMPs at Mormon Slough), BMP BIO-4 (Environmentally Sensitive Area Fencing at Mormon Slough), and BMP BIO-7 (Storage and Disposal of Excavated Materials), which will ensure construction BMPs are utilized, fencing is placed around environmentally sensitive areas, and, when possible, storage of materials (including hazardous materials) occur at locations at least 100 feet from aquatic resources, the Project will not result in direct or indirect adverse effects on downstream water quality within the Mormon Slough critical habitat and essential fish habitat areas.

To mitigate direct and indirect, long-term, moderate adverse effects related to loss of habitat in the Mormon Slough for fish passage, the Project will implement MM BIO-2 (National Oceanic and Atmospheric Administration Consultation), requiring the structure spanning the Mormon Slough to retain a natural substrate stream channel bottom. Additionally, SJRRC will avoid any rip-rap armor within Central Valley steelhead critical habitat or Chinook salmon EFH and will select a structure design that would maintain the potential for future restoration of fish passage within the Mormon Slough as identified in MM BIO-2 (National Oceanic and Atmospheric Administration Consultation).

With the incorporation of BMP BIO-3, BMP BIO-4, and BMP BIO-7 and the implementation of Measure MM BIO-2, no direct or indirect, long-term, moderate adverse effects on critical habitat and EFH would result under the Project.

#### **JURISDICTIONAL WATERS**

The construction of pipe and box culverts for the Project would cause direct and indirect, long-term, moderate effects on potential jurisdictional resources in the BSA. The Project would result in direct, long-term, moderate adverse effects





Environmental Resource and Associated Section in Final EA	Potential Adverse Effect(s) under the Project (Selected Alternative)	Best Management Practice (BMP) and/or Mitigation Measure (MM)
	<p>on up to approximately 0.04 acre of potential jurisdictional non-wetland waters of the U.S within Mormon Slough. However, the implementation of MM BIO-3 (Mitigation of Aquatic Resources) which requires mitigation for Project effects on aquatic resources, MM BIO-4 (Compliance with Permitted Mitigation Measures) which requires SJRRC to obtain all required permits and authorization for Project effects on waters of the US, and MM-BIO-5 (Preparation of Formal Jurisdictional Delineation) which requires that a formal field-delineation is conducted during final design, will mitigate these direct or indirect, moderate adverse effects. Therefore, with the implementation of MM BIO-3 through MM BIO-5, no direct or indirect, long-term, moderate adverse effects on federal jurisdictional waters will occur.</p>	



## 7 Section 4(f) and Section 106 Consultation

CHSRA's environmental review for the Project included an analysis of potential impacts to resources protected under Section 4(f) of the USDOT Act of 1966. Four parks and recreational properties present in the Project's Parks and Recreation Resource Study Area, and six historic properties present in the cultural resources area of potential effects (APE) have been identified as Section 4(f) resources. CHSRA has determined that there would be no Section 4(f) use of eight of these properties. CHSRA has determined that there would be a temporary occupancy exception of use for Union Park and a *de minimis* impact determination for Stockton Downtown Commercial Historic District.

As noted in Chapter 3.9, *Cultural Resources*, of the EA, in accordance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulations (36 CFR Part 800) CHSRA determined, in consultation with the State Historic Preservation Officer (SHPO), that the Project would have no effect on historic properties.

### 7.1 Section 4(f) Resources

#### 7.1.1 UNION PARK

Union Park would be the only park and recreation Section 4(f) resource affected by the Project, due to the TCE required for access. The TCE would be considered an exception to the temporary use of the park property, consistent with 23 CFR 774.13(d). On April 9, 2021, SJRRC and CHSRA sent the City of Stockton, the official with jurisdiction (OWJ) over the property, a letter requesting concurrence with the preliminary determination that the TCE at Union Park would be considered a temporary occupancy exception of use of the park property and not result in a Section 4(f) use of Union Park. The concurrence letter from the City was received on September 9, 2021. The City's written concurrence has been used by CHSRA in its final determination of temporary occupancy exception of Section 4(f) use for Union Park. For a detailed discussion of potential effects to this Section 4(f) resource and a copy of the concurrence letter from the City, refer to Appendix D, *Final Section 4(f) and Section 6(f) Evaluation*, of this Final EA.

#### 7.1.2 STOCKTON DOWNTOWN COMMERCIAL HISTORIC DISTRICT

There are five historic properties and one historic district within the APE under Section 106 that also qualify for protection under Section 4(f) as historic properties. SHPO is the OWJ over these six historic properties. Of the six properties, the Stockton Downtown Commercial Historic District would be the only historic Section 4(f) resource affected by the Project due to TCEs required by the Project in the eastern edge of the district, that would be required for utility relocation, protection in place, and/or removal. In accordance with the Section 106 process and after consultation with interested Native American tribes, SHPO agreed with the project finding of "no adverse effect" (FOE). CHSRA has used SHPO's written concurrence in the FOE to determine that the TCE for utilities in the Stockton Downtown Historic District would have *de minimis* impacts. On April 11, 2022, CHSRA informed SHPO, per CFR 774.5(b)(1), of its intent to make a preliminary *de minimis* impact determination based on SHPO's December 9, 2021, concurrence on the Section 106 FOE. For a



detailed discussion of potential effects to this Section 4(f) resource, refer to Appendix D, *Final Section 4(f) and Section 6(f) Evaluation*, of this Final EA.

## 7.2 Section 106 Consultation

CHSRA completed consultation in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (36 CFR Part 800), which requires federal agencies to consider the impacts of their undertakings on historic properties. Section 106 regulations require that CHSRA identify historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) within the Project's APE; assess effects to historic properties; avoid, minimize, or mitigate any adverse effects; and consult with SHPO and other consulting parties throughout the Section 106 process.

In May 2020, CHSRA contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File search to identify sensitive or sacred Native American resources that could be affected by the Project. The NAHC responded on May 12, 2020, and reported that the search of the Sacred Lands File revealed positive results for the relevant area. No additional information on the location or nature of the positive finding was provided.

CHSRA contacted the North Valley Yokuts Tribe and the Confederated Villages of Lisjan at the recommendation of the NAHC, because the search does not include an exhaustive list of Native American tribal cultural resources, as a part of Section 106 Consultation efforts. Representatives of CHSRA meet with a representative of the North Valley Yokuts Tribe in January 2021 and with the Confederated Valley of Lisjan in February 2021. BMPs were identified and incorporated in Section 3.9, *Cultural Resources*, of the EA, to ensure proper treatment of any inadvertent discoveries of interest to tribal representatives during Project construction activities. BMP measures can be found in their entirety in Table R-2 in Appendix R, *Environmental Commitment Record*, of the Final EA.

CSHRA, as NEPA Lead Agency, has determined that the Project would have no adverse effect on historic properties within the APE. The project FOE Report was submitted to SHPO on August 4, 2021; an Addendum to the FOE Report was submitted in November 2021. SHPO agreed with the project finding of no adverse effect on December 9, 2021, given the Project BMPs identified in the Final EA, would be incorporated as part of the Project. The FOE and SHPO concurrence information has been provided in Appendix H, *Section 106 Efforts*, of the Final EA (attached hereto as Attachment B).

## 8 Commitments and Mitigation Measures

As previously discussed in Section 6.1 of this FONSI, each sub-chapter of Chapter 3 within the Final EA identifies BMPs that are incorporated as part of the Project, to potentially avoid and/or minimize potential effects so that no adverse effects would occur, and MMs to mitigate potentially adverse effects of the Project.

As reflected in Table 3 (Table 1.6-1, *Required Permits, Reviews, and Approvals*, in Chapter 1, *Project Description*, of the EA), SJRRC is required to comply with all applicable federal, state, and local permitting requirements during the implementation of the Selected Alternative.



**Table 3: Required Permits, Reviews, and Approvals**

Permit, Licenses, Agreements, and Certifications	Agency	Status
California Department of Fish and Game Code, Section 1602 Lake and Streambed Alteration Agreement	CDFW	SJRRRC will submit the application after approval of this EA.
Porter-Cologne Water Quality Control Act Waste Discharge Requirements	Central Valley RWQCB	SJRRRC will submit the application after approval of this EA.
SJMSCP Participation Approval	SJCOG	SJRRRC will initiate the approval process prior to final approval of this EA.
Federal Endangered Species Act (ESA) Section 7 Compliance	NMFS	SJRRRC obtained NMFS concurrence for the Project on May 17, 2021, and is provided in Appendix N of this EA.
Federal Clean Air Act (CAA) General Conformity Determination	FRA	FRA approved the RONA on July 26, 2022.
Caltrans NPDES Permit, Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation, Order No. 2012-0011-DWQ as amended by Order WQ 2014-0006-EXEC, Order WQ 2014-0077-DWQ, Order WQ 2015-0036-EXEC, and Order WQ 2017-0026-EXEC, NPDES No. CAS000003	SWRCB	SJRRRC will obtain SWRCB-issued Caltrans NPDES Permit prior to Project construction.
Industrial General Permit (Order No. 2014-0057-DWQ as Amended by Order No. 2015-0122-DWQ and Order No. 2018-XXXX-DWQ; NPDES No. CAS000001)	SWRCB	SJRRRC will obtain an SWRCB-issued Industrial General Permit prior to Project construction.
NPDES Construction General Permit, Waste Discharges of Storm Water Runoff Associated with Construction Activities, Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ, NPDES No. CAS000002	Central Valley RWQCB	SJRRRC will apply by preparing a Stormwater Pollution Prevention Plan and submitting an NOI and other permit registration documents prior to any Project construction.
Waste Discharge Requirements/Monitoring & Reporting Program (Order No. R5-2015-0024, NPDES No. CAS083470)	Central Valley RWQCB	Dewatering is required, SJRRRC will apply for and obtain prior to dewatering activities.
Encroachment Permits	Caltrans City of Stockton	SJRRRC, in coordination with CHSRA, will apply for Caltrans and City of Stockton encroachment permits prior to Project construction.
Floodplain Encroachment Permit	CVFPB	SJRRRC will apply for a Floodplain Encroachment Permit prior to Project construction.





Permit, Licenses, Agreements, and Certifications	Agency	Status
Grading/Building Permits	SJVAPCD	SJRRRC will apply for grading/building permits from SJVAPCD prior to Project construction.
Construction and Maintenance Agreements	UP BNSF	SJRRRC will apply for construction and maintenance permits from UP and BNSF prior to Project construction.
Aboveground Fuel Storage Tank Permit in Excess of 60-gallons	City of Stockton	If determined to be necessary during the final design phase, SJRRRC will apply for an Aboveground Storage Tank Permit prior to Project construction.
Utility Company Approvals	City of Stockton	SJRRRC will coordinate with utility providers to obtain approvals during final design.
Permit and Required Inspection	SJEHD	SJRRRC will coordinate with SJEHD to obtain the appropriate permits and conduct the SJEHD-required inspections in compliance with the San Joaquin County Development Title, Sections 9-115.3 and 9-115.6, prior to the commencement of geotechnical drilling activities.
Encroachment Permit	Caltrans	SJRRRC will apply for an encroachment permit through Caltrans prior to Project construction.
<p>Notes:</p> <p>BNSF=BNSF Railway; Caltrans=California Department of Transportation; CDFW=California Department of Fish and Wildlife; CESA=California Endangered Species Act; California Department of Transportation=Caltrans; CVFPB=Central Valley Flood Protection Board; CWA=Clean Water Act; EA=Environmental Assessment; FRA=Federal Rail Administration; No.=number; NMFS= National Marine Fisheries Service; NOI=Notice of Intent; NPDES=National Pollutant Discharge Elimination System; RWQCB=Regional Water Quality Control Board; SJEHD=San Joaquin Environmental Health Department; SJRRRC=San Joaquin Regional Rail Commission; SJVAPCD=San Joaquin Valley Air Pollution Control District; SJCOG=San Joaquin Council of Governments; SJMSCP=San Joaquin Multi-Species Habitat and Conservation and Open Space Plan; SWRCB=State Water Resources Control Board; UP=Union Pacific Railroad</p>		

As described in Appendix R of the Final EA, CHSRA, in coordination with SJRRRC, identified the best management practices, commitments, and mitigation measures to address and further reduce the potential impacts of the Project. These BMPs, commitments, and mitigation measures are included in Attachment A to this FONSI. SJRRRC is responsible for ensuring that all environmental commitments identified in Attachment A to this FONSI are fully implemented.



## 9 Coordination and Consultation

### 9.1.1 NATIVE AMERICAN CONSULTATION

Please refer to the discussion under Section 7.2, *Section 106 Consultation*, of this FONSI, for the discussion regarding Native American Consultation efforts.

### 9.1.2 RESOURCE AGENCY CONSULTATION

Coordination for the Project has occurred and is ongoing with several federal, state, and local agencies. Section 106 consultation regarding potential impacts to historic properties as described in Chapter 3.9, *Cultural Resources*, of the EA occurred with SHPO. As summarized in Chapter 3.15, *Biological Resources*, of the EA, consultation regarding potential impacts to essential fish habitat occurred with the National Marine Fisheries Service (NMFS) and consultation regarding the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) occurred with the San Joaquin Council of Governments (SJCOG). As described in Appendix D, *Final Section 4(f) and 6(f) Resource Evaluation*, of the Final EA, Section 4(f) consultation was conducted with the officials with jurisdiction-the City of Stockton and the California SHPO. A summary of these consultation activities is provided below.

- **National Marine Fisheries Service:** At one time the NMFS had designated the Calaveras River and the Mormon Slough as critical habitat for Central Valley steelhead. Additionally, NMFS information indicated that Essential Fish Habitat (EFH) for Chinook salmon occurs within the Project area. Informal Section 7 consultation was initiated with National Oceanic and Atmospheric Administration (NOAA) on February 25, 2021. NMFS issued a “not likely to adversely affect” determination for the Project on May 17, 2021, with regard to Central Coastal valley steelhead and its critical habitat and the southern distinct population segment of North American green sturgeon and its critical habitat. It also determined that the Project would have “no adverse effect” on EFH for chinook salmon or groundfish. The NMFS Concurrence Letter is provided in Appendix N, *NMFS Concurrence Letter*, of the Final EA. An additional detailed discussion of this issue can be found in Section 3.15, *Biological Resources*, of the Final EA.
- **San Joaquin Council of Governments:** The Project team coordinated with SJCOG, the agency responsible for the management of the SJMSCP, on the Project’s potential participation in the Plan. SJMSCP provides compensation for open space conversion and streamlined coverage for regional special-status species under state and federal law. Participation in SJMSCP is limited to special-status species coverage and does not rule out the need for other permits. On October 28, 2020, the Project team contacted SJCOG to determine Project eligibility in SJMSCP and determined that the Project is eligible to participate. In December 2020, SJRRC began to coordinate with the SJCOG for the Project to participate in the SJMSCP. SJRRC will submit the application after approval of this FONSI.
- **The City of Stockton:** A TCE at Union Park is required for construction access associated with Project implementation. For the purposes of Section 4(f), this TCE would be considered a temporary occupancy exception of use for the park property, consistent with 23 CFR 774.13(d). Please refer to the discussion under 7.1, *Section 4(f) Resources*, of this FONSI, for additional information regarding Section 4(f) coordination and concurrence efforts.



- **Office of Historic Preservation:** Please refer to the discussion under Section 7.2, *Section 106 Consultation*, of this FONSI.

### 9.1.3 COMMUNITY OUTREACH AND PUBLIC INVOLVEMENT

Public outreach efforts for the Project led by SJRRC included meetings with and presentations to local committees, community groups, elected officials, and local government entities. Chapter 4, *Public Input and Agency Coordination*, of the Final EA describes all outreach activities conducted for the Project.

#### Project Development Team Meetings

Since April 2020 concurrent with the concept development and screening process, the Project team has implemented monthly meetings with the Project Development Team (PDT) as well as several focus meetings as needed to address specific topics or issues. The PDT consists of the representatives from SJRRC, SJCOG, and the City of Stockton.

#### Public Participation

As discussed above, PDT meetings of representatives from SJRRC, SJCOG, and the City of Stockton have been held to discuss the status of the Project since the beginning of the Project when a joint EIR/EA was originally being prepared. Those meetings continued during the state environmental clearance process. During preparation of the Draft EA, in addition to continuing the PDT meetings, extensive public outreach and stakeholder and public participation efforts were conducted. A summary of the public outreach activities conducted for the purposes of the Draft EA is provided, below

Project promotion activities as part of the Draft EA included distribution of a bilingual mailer to the Project contact database consisting of 5,725 regional stakeholders and property owners located within a 1-mile radius of the Project Study Area; bilingual newspaper advertisements in the Stockton Record, published on March 28, 2022, and in the Latino Times April 2022 edition along with the Notice of Availability (NOA); seven electronic notifications to the stakeholder database and to ACE ridership; bilingual posts on ACE's social media platforms; one press release distributed to media outlets; bilingual poster and flyer distributions to various stakeholder locations; the availability of a dedicated Project website (stocktondiamond.com) and information hotline (209) 235-0133; and 12 physical repository locations where the Draft EA was available for review during the 30-day public circulation period.

Several stakeholder and public meetings were conducted prior to and during the 30-day public review and comment period for the Draft EA from March 28 to April 27, 2022. These meetings are summarized, below.

- **Stakeholder Working Group Meeting:** A stakeholder working group meeting was held on Wednesday, March 2, 2022, from 11:30 am to 1:30 pm at the Rail Maintenance Facility, located at 1020 East Alpine Way, Stockton, CA 95204. A total of 13 stakeholders attended the meeting (10 in-person and three virtually) along with the Project team. General themes included interest in an underpass extension to Union Street, incorporation of vegetative/natural barriers, Project noise impacts (including the application of potential window insulation), aesthetics (more lighting), types of construction materials used for the Project, greenhouse gas emissions as a



result of the Project, and further public outreach/public meeting details. Following the meeting, attendees were given a tour of the rail facility.

- **Neighborhood Meet-and-Greet:** A neighborhood meet-and-greet was held on Tuesday, April 5, 2022, from 4:30 pm to 6:00 pm at El Concilio, located at 224 South Sutter Street, Stockton, CA 95202. A total of 13 property owners and stakeholders attended the meeting. General themes included interest in the incorporation of public art (murals, sculpture pads, paying artists) and concerns about existing unhoused population issues within the area.
- **Bilingual Public Open House:** A bilingual Public Open House was held on Wednesday, April 6, 2022, from 4:30 pm to 6:00 pm at the Stribley Community Center, located at 1760 East Sonora Street, Stockton, CA 95205. A total of 20 property owners and stakeholders attended the meeting. General themes included feedback on the benefits the Project would provide, the consideration of public art (murals and sculptures) as part of the Project, consideration of disenfranchised regions/environmental justice communities and unhoused population within and adjacent to the Project Study Area, aesthetics (specifically the consideration of incorporating solar lights), incorporation of greenery/vegetative barriers as part of the Project, noise and air quality concerns related to the Project, the potential to incorporate community improvements (in places like parks), and additional information regarding public outreach during all phases and into construction. Overall, the bilingual Open House received support on the Project.
- **Stockton Rotary Club Presentation:** A presentation at the Stockton Rotary Club was held at 12:00 pm on April 20, 2022, at the Stockton Golf & Country Club, located at 3800 Country Club Boulevard, Stockton, CA 95204. Approximately 30 members attended the meeting. General themes included questions about funding, property impacts, local road impacts, construction schedule, and the flyover structure type selection.

#### 9.1.4 PUBLIC REVIEW PERIOD

SJRRC informed the public, and the entities they consulted with during preparation of the EA, of the 30-day comment period on the Draft EA through a NOA posted with the San Joaquin County Clerk on March 28, 2022, direct distribution, and direct e-mail correspondence. The Draft EA and an NOA were distributed to local agencies, regional agencies, and utility providers affected by the Project on March 28, 2022, as described in Appendix O, *Distribution List*, of the Final EA. The NOA was also posted with the San Joaquin County Clerk on March 28, 2022. A copy of the stamped and posted NOA with the San Joaquin County Clerk is provided in Appendix P, *Public Notice and Public Meeting*, of the Final EA.

In addition, property owners directly affected by the Project have been provided with the same notifications of the availability of the Draft EA document and public meeting information. As stated above, there was a 30-calendar day public review period for the Draft EA.

SJRRC posted the EA to a Project website at the start of the 30-day public and agency review. In addition to posting the electronic version of the Draft EA on the SJRRC website, printed copies of the Draft EA and electronic copies of the associated technical reports included in the appendices were available for review at the following locations during hours the facilities are open (open days/hours may be reduced for compliance with coronavirus public health and safety directives):

- 345 N. El Dorado Street, Stockton, CA 95202 (City of Stockton Community Development Office)





- 555 E Weber Avenue, Stockton, CA 95202-2804 (San Joaquin Council of Governments)
- 605 N. El Dorado Street, Stockton, CA 95202-1907 (Cesar Chavez Central Library)
- 502 W. Benjamin Holt Drive, Stockton, CA 95207 (Margaret K. Troke Branch Library)
- 2324 Pock Lane, Stockton, CA 95205-7821 (Maya Angelou Branch Library)
- 1760 E Sonora Street, Stockton, CA 95205 (Stribley Micro Library)
- 2370 E Main Street, Stockton, CA 95205 (Fair Oaks Branch Library)
- 1453 W. French Camp Road, Stockton, CA 95206 (Weston Ranch Branch Library)
- 5758 Lorraine Avenue, Stockton, CA 95210 (Arnold Rue Micro Library)
- 734 Houston Avenue, Stockton, CA 95206 (Van Buskirk Micro Library)

Printed copies of the Draft EA and electronic copies of the associated appendices were also available for review during business hours at CHSRA's Headquarters at 770 L Street, Suite 620 MS-1, Sacramento, CA 95814, and SJRRC's office at 949 E. Channel Street, Stockton, CA 95202. The public was also able to request a copy of the Draft EA and associated appendices by calling (209) 235-0133 or emailing [info@StocktonDiamond.com](mailto:info@StocktonDiamond.com).

Comments on the Draft EA were solicited from the public and stakeholders during the 30-day public review period for the Draft EA, which occurred from March 28 to April 27, 2022. Additional information on the public and stakeholder outreach during the public comment period can be found in Chapter 4, *Public Input and Agency Coordination*, of the Final EA. Comments received during the 30-day public comment period on the Draft EA contained the following general comment themes:

- Support of, and interest in, the Project;
- Project effects to the community related to aesthetics, parcel acquisitions, remnant parcels, and relocations of businesses;
- Concerns regarding the temporary and permanent relocation of transient populations that currently exist near the Mormon Slough;
- Requests for specific community and/or stakeholder outreach, with special consideration for environmental justice populations;
- Questions regarding the process for incorporating the proposed interior noise and vibration abatement at the 12 residential properties which will experience severe noise impacts as a result of the Project; and
- Project effects to existing pedestrian and bicycle facilities related to temporary and permanent road closures.

All comments received on the Draft EA during the 30-day public review period and/or at the open house have been documented, and formal responses to these comments have been provided in Appendix Q, *Response to Public Comments*, of the Final EA. No substantive changes were made to the Final EA based on the public comments received for the Project. Therefore, no changes to the Selected Alternative were required, or made, as a result of the public comments that were received.



## 10 General Conformity Determination

The Project is federally funded; thus, it is subject to the General Conformity rule established under the Clean Air Act (section 176(c)(4)). The method for determining conformity depends upon the pollutant and the circumstances surrounding the federal action. Most conformity demonstrations either mitigate emission increases or demonstrate that emissions have been or will be included in the State Implementation Plan (SIP). If the evaluation indicates that emissions do not exceed *de minimis* thresholds, the action is exempt from conformity determination and FRA must prepare a Record of Non-Applicability (RONA).

Although CHSRA is the lead NEPA agency, consistent with 23 U.S.C. 327 and the July 23, 2019, NEPA Assignment Memorandum of Understanding executed between FRA and the State of California, FRA retains its obligations to make general conformity determinations under the Clean Air Act.

Based on CHSRA and SJRRC's quantitative analysis of construction emissions and construction emissions modeling, which is included in Chapter 3.13, *Air Quality* and Appendix K, *Air Quality Conformity Supporting Documents*, of the Final EA, the annual construction emissions generated by the three design options for the Project are well below the San Joaquin Valley Air Basin (SJVAB) general conformity *de minimis* levels over the 3-year period of construction anticipated between the years 2023 through 2026. Furthermore, with regards to project operations, the Project would result in a long-term decrease in criteria pollutant emissions when compared to the No Action Alternative. As a result, FRA has concluded that implementing the Project would not exceed *de minimis* thresholds for applicable criteria pollutants and a General Conformity Determination will not be required.


No air quality-specific comments were received during the public comment period for the Draft EA. The RONA was approved by FRA on July 26, 2022. A copy of the RONA is attached to this FONSI as Attachment C. For additional discussion on the RONA and the findings, refer to Section 3.13, *Air Quality*, of the Final EA.



## 11 Conclusion

CHSRA finds that the Project as presented and assessed in the attached EA; associated technical reports; BMPs, commitments and mitigation measures required; and comments offered by agencies, stakeholders, the public on this record, satisfies the requirements of NEPA (42 U.S.C. §§ 4321 *et seq.*), Council on Environmental Quality regulations (40 CFR parts 1500-1508), and Federal Highway Administration, Federal Railroad Administration, and Federal Transit Administration – Environmental Impacts and Related Procedures (23 CFR § 771). Based on CHSRA's consideration of the entire project record and the attached Final EA, CHSRA has determined that the Selected Alternative would have no foreseeable significant impact on the quality of the human or natural environment, provided that it is implemented in accordance with the commitments identified in this FONSI. CHSRA has also satisfied requirements under Section 4(f) of the USDOT Act of 1966. The EA provides sufficient evidence and analysis for CHSRA to determine that an environmental impact statement is not required for the Stockton Diamond Grade Separation Project, as presented.

As the Project Sponsor, SJRRC is responsible for ensuring all environmental commitments identified in this FONSI are fully implemented.

  
Serge Stanich  
Director, Environmental Services  
California High-Speed Rail Authority

July 28, 2022  
Date of Approval

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## Attachment A. Environmental Commitments Record

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## Appendix R      Environmental Commitments Record (ECR)



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## R.1 Purpose of the Environmental Commitments Record

In order to be sure that all of the environmental best management practices (BMP) and mitigation measures (MM) identified in this environmental assessment (EA) are executed at the appropriate times, the following commitments will be implemented. During project design, BMPs and/or mitigation measures will be incorporated into the Project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the Project. During construction, environmental, construction, and engineering staff will ensure that the commitments contained in this Environmental Commitments Record (ECR) are fulfilled. Following construction and appropriate phases of Project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a living document, some fields (columns) have not been completed, and will be filled out as each of the measures is implemented during the appropriate phase.

A full list of BMPs is provided in Table R-1, and a full list of MMs is provided in Table R-2.



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Date of ECR: July 2022

Project Phase:  
☒ DEA/FEA  
☐ Final Design  
☐ Construction**ENVIRONMENTAL COMMITMENT RECORD (ECR)**  
**Stockton Diamond Grade Separation Project****Table R-1. Best Management Practices**

Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
Community Impacts and Growth								
BMP COM-1	<b>Outreach and Engagement Plan.</b> SJRRC will actively coordinate with the City, County, and local stakeholder groups before and during Project construction to prepare and implement an Outreach and Engagement Plan to address the homeless encampments that are present within the Mormon Slough area. The Outreach and Engagement Plan will include input on goals and strategies from local stakeholder groups, as well as established goals and policies of the County’s Community Response to Homelessness Strategic Plan. The Outreach and Engagement Plan will focus on a targeted proactive response for temporary and permanent relocation assistance for transient populations affected by the Project.	SJRRC	Before and During Project Construction.					
Utilities and Emergency Services								
BMP UTL-1	<b>Notify Stakeholders of Utility Service Interruptions.</b> During final design and prior to construction, SJRRC will ensure compliance with Section 4216 of the California Government Code, that requires Project proponents to notify and inform relevant stakeholders prior to construction, thereby reducing the adverse impacts associated with temporary disruptions in utility services. SJRRC will coordinate with all utility providers during final design and construction planning phases to develop a Utility Relocation Plan (URP) to minimize service disruption. The URP will also include efforts to communicate and inform utility service customers of potential planned service interruptions.	SJRRC	During Final Design and Prior to Construction					
BMP UTL-2	<b>Minimize Utility and Service System Disruptions.</b> During final design, SJRRC will ensure that utility disruptions and service system inconveniences are avoided, where possible, and will consider design opportunities to avoid permanent impacts to existing utility infrastructure, where practical.	SJRRC	During Final Design					
BMP UTL-3	<b>Utility Avoidance Coordination.</b> SJRRC will coordinate with City of Stockton (City) and other utility providers during final design to address utility relocation impacts. The following methods will be implemented to avoid permanent impacts to utilities and access to existing or future planned utilities:	SJRRC	During Final Design					

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
<ul style="list-style-type: none"><li>Protect in Place. SJRRC will evaluate protect in place options to maintain the utility in its current location. These options include evaluation of load above the utility and reinforcement options, to be approved by the utility provider. Bridge columns and other bridge-related subsurface work will be designed in coordination with the utility provider affected to avoid impacting the utility. Accurate horizontal and vertical location of the utility will be gathered to support the avoidance and protection design.</li><li>Access. SJRRC will work with the utility provider during the final design phase to prepare a design that maintains provider access to the utility for inspection and maintenance, as well as to not preclude future potential replacement of the utility.</li><li>Underground Service Alert. Prior to grading activities, SJRRC will require the design/build contractor to notify Underground Service Alert (USA) at least 2 days prior to excavation by calling 811 to require that all utility owners within the Project disturbance limits identify the locations of underground transmission lines and other utility facilities</li></ul>							
Traffic and Transportation – Pedestrian and Bicycle Facilities							
BMP TRA-1	Protection of Public Roadways during Construction. Prior to construction, SJRRC will ensure that the contractor will provide a photographic survey documenting the condition of the public roadways along truck routes providing access to the Project site to restore such routes utilized by the Project during construction to their previous condition.	SJRRC	Prior to Construction.				
BMP TRA-2	Construction Transportation Plan. Prior to construction, SJRRC will ensure that the contractor will prepare a detailed Construction Transportation Plan (CTP) for the purpose of minimizing the effect of construction and construction traffic on adjoining and nearby roadways in close consultation with the local jurisdiction having authority over the site. The development of the CTP will include coordination and collaboration with the San Joaquin Regional Transit District (RTD).	SJRRC	Prior to Construction.				
BMP TRA-3	Off-Street Parking for Construction-Related Vehicles. During construction, SJRRC will ensure that the contractor will identify adequate off-street parking for all construction-related vehicles throughout the construction period to minimize effects on public on-street parking areas.	SJRRC	During Construction.				
BMP TRA-4	Maintenance of Pedestrian Access. Prior to construction, SJRRC will ensure that the contractor will prepare a specific CMP to address maintenance of pedestrian access during the construction period.	SJRRC	Prior to Construction.				
BMP TRA-5	Maintenance of Bicycle Access. Prior to construction, SJRRC will ensure that the contractor would prepare a specific CMP to address maintenance of bicycle access during the construction period.	SJRRC	Prior to Construction.				
BMP TRA-6	Protection of Freight and Passenger Rail During Construction. During construction, SJRRC will ensure that the contractor will repair any	SJRRC	During Construction.				



Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
BMP TRA-7	structural damage to freight or public railways that may occur during the construction period and return any damaged sections to their original structural condition.							
BMP TRA-7	<b>Transportation Management Plan.</b> During final design, SJRRC will ensure that a Project TMP will be drafted, approved, and filed with the City of Stockton Engineering and Transportation Department, or other agency with jurisdiction over the road, prior to any road closures. SJRRC, will also coordinate and collaborate regularly with the RTD during final design to coordinate elements of the TMP. The plan would include alternative routing plans and methods and details for early public outreach.	SJRRC	During Final Design.					
BMP TRA-8	<b>Road Closure Formalization Process.</b> During final design, SJRRC will ensure that all Project road closures will be formalized as part of CPUC GO 88B diagnostic review process. The CPUC GO 88B diagnostic review process will include the evaluation of circulation for all modes of travel in coordination with the City of Stockton, CPUC, UP, and Caltrans, as well as evaluating potential permanent effects related to access for pedestrians, bicycles, automobiles, and trucks.	SJRRC	During Final Design.					
Visual and Aesthetics								
BMP AES-1	<b>Lighting Plan.</b> During final design, SJRRC will ensure that a lighting plan will be developed that will select temporary and permanent lighting fixtures to minimize glare on adjacent properties and into the night sky. As defined in the City’s Municipal Code, permanent lighting fixtures will be selected to ensure that the light beam is controlled and not directed across a property line or upward into the sky. Lighting will be shielded with non-glare hoods or reflectors and focused within the Project ROW. The lighting plan will be reviewed and approved by the City of Stockton prior to construction to ensure compliance with the City’s Municipal Code and General Plan.	SJRRC	During Final Design.					
BMP AES-2	<b>Coordinate Design Elements to Reduce Visual Effects.</b> During final design, SJRRC will ensure that all infrastructure within the corridor owned by UP and all materials and aesthetic features will be reviewed and approved by UP. The detail design of the elements in the Project corridor and the selection of the flyover’s specific materials and forms will be rigorously coordinated to reduce visual effects and enhance existing visual quality.	SJRRC	During Final Design.					
	For retaining wall options, this would include but not be limited to the wall type (cast-in-place, mechanically stabilized earth, or other types), the materials used in wall construction (concrete, block, stone, or metal), and the architectural treatment of its façade (dimensions, jointing, colors, textures).							
	For the viaduct option, the bridge type, proportions for the openings, and design of piers would be coordinated, especially when located adjacent to a retaining wall or embankment structure, to achieve design coherence.							

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
BMP AES-3	SJRRRC	During Final Design.					
Cultural Resources							
BMP CUL-1	SJRRRC	Prior to Issuance of a Grading Permit.					

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
<div>BMP CUL-2</div>	<div>SJRRC</div>	<div>Prior to Construction</div>					
<div>BMP CUL-3</div>	<div>SJRRC</div>	<div>Prior to Issuance of a Grading Permit.</div>					

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
BMP CUL-4	SJRRRC	During Construction (in the event of inadvertent discovery of human remains).					

Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed Date / Initials	Construction Task Completed Date / Initials	Environmental Compliance YES NO	
provisions of the California Health and Safety Code (7100 37 et seq.) directing identification of the next-of-kin will apply.								
Hydrology, Floodplains, and Water Quality								
BMP HYD-1	<b>Stormwater Management and Treatment Plan.</b> Prior to construction, SJRRC will ensure that the contractor prepares a Project specific stormwater management and treatment plan, and all aspects of the Stormwater Management and Treatment Plan are implemented during construction activities.	SJRRC	Prior to Construction.					
BMP HYD-2	<b>Flood Protection.</b> Prior to construction, SJRRC will ensure that the contractor prepares and implements a flood protection plan for the Project.	SJRRC	Prior to Construction.					
BMP HYD-3	<b>Construction Stormwater Pollution Prevention Plan.</b> Prior to construction (that is, any ground-disturbing activities), SJRRC will ensure that the contractor complies with SWRCB CGP, which requires the preparation and implementation of a SWPPP. The construction SWPPP will propose BMPs to minimize potential short-term increases in sediment transport caused by construction, including erosion control requirements, stormwater management, and channel dewatering for affected stream crossings.	SJRRC	Prior to Construction.					
BMP HYD-4	<b>Industrial Stormwater Pollution Prevention Plan.</b> Prior to construction of any facility classified as an industrial facility, SJRRC will ensure that the contractor will comply with existing water quality regulations. The stormwater general permit requires preparation of a SWPPP and a monitoring plan for industrial facilities that discharge stormwater from the site, including vehicle maintenance facilities associated with transportation operations. The permit includes performance standards for pollution control.	SJRRC	Prior to Construction.					
BMP HYD-5	<b>Drainage Report.</b> SJRRC will ensure that a Project-specific Drainage Report will be developed in coordination with the City of Stockton during final design. The Drainage Report will be prepared consistent with standards set by the City of Stockton. In addition, the Drainage Report will be utilized to prepare a Project-specific Stormwater Quality Control Plan that conforms with the requirements of the City of Stockton and County of San Joaquin Stormwater Quality Control Criteria Plan (August 2020).	SJRRC	During Final Design.					
Geology, Soils, Seismicity, Topography, and Paleontology								
BMP GEO-1	<b>Geologic Hazards.</b> Prior to construction, SJRRC will ensure that the contractor shall prepare a Construction Management Plan addressing how the contractor will address geologic constraints and minimize or avoid impacts to geologic hazards during construction. The plan will be submitted to SJRRC for review and approval. At minimum, the plan will address unstable soils and water and wind erosion.	SJRRC	Prior to Construction.					



Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
BMP GEO-2	<b>Geology and Soils.</b> Prior to construction, SJRRC will ensure that the contractor will issue a technical memorandum documenting the ways in which the following guidelines and standards have been incorporated into facility design and construction: <ul style="list-style-type: none"> <li>2015 AASHTO Load and Resistance Factor Bridge Design Specifications and the 2015 AASHTO Guide Specifications for Load and Resistance Factor Seismic Bridge Design, or their most recent versions.</li> </ul>	SJRRC	Prior to Construction.				
BMP GEO-3	<b>Implement Geotechnical Recommendations.</b> During final design, SJRRC will ensure that a project specific Geotechnical Design Report will be prepared, which will include final geotechnical recommendations for ground improvement options and foundation, embankment, and retaining wall design for the Project.	SJRRC	During Final Design.				
BMP GEO-4	<b>Preparation and Implementation of a Paleontological Resources Management Plan.</b> Due to the potential for adverse effects to paleontological resources in the Project subsurface, a Paleontological Resources Management Plan (PRMP) will be prepared during final design. SJRRC will ensure that the PRMP will include provisions for paleontological monitoring (e.g., periodic spot checks) during excavations to check for the presence of the early Holocene- to late Pleistocene-age Modesto Formation, and the implementation of full-time monitoring if the early Holocene- to late Pleistocene-age Modesto Formation is observed. In the event unanticipated paleontological resources are discovered during Project related activities, SJRRC or their designated contractor will ensure that work in the immediate vicinity of the discovery is halted until it can be evaluated by a qualified paleontologist.	SJRRC	During Final Design				
Hazardous Waste and Materials							
BMP HAZ-1	<b>Prepare a Construction Hazardous Materials Management Plan (HMMP).</b> Prior to construction, SJRRC will ensure that an HMMP be prepared, which will outline provisions for safe storage, containment, and disposal of chemicals and hazardous materials, contaminated soils, and contaminated groundwater used or exposed during construction, including the proper locations for disposal. The HMMP shall be prepared to address the Project Study Area, and include, but not be limited to, the following: <ul style="list-style-type: none"> <li>A description of hazardous materials and hazardous wastes used (29 CFR 1910.1200)</li> <li>A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste (29 CFR 1910.120)</li> <li>Preparedness, prevention, contingency, and emergency procedures, including emergency contact information (29 CFR 1910.38) <ul style="list-style-type: none"> <li>A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of</li> </ul> </li> </ul>	SJRRC	Prior to Construction.				



ID	Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
	<p>evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility (29 CFR 1910)</p> <ul style="list-style-type: none"><li>• Instructions on keeping Safety Data Sheets on site for each on-site hazardous chemical (29 CFR 1910.1200)</li><li>• Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank (29 CFR 1910.120)</li></ul>							
BMP HAZ-2	<p><b>Property Acquisition Phase I and Phase II Environmental Site Assessments.</b> Prior to or during the right-of-way acquisition phase, SJRRC will ensure that Phase I Environmental Site Assessments (ESA) would be conducted in accordance with standard ASTM methodologies to characterize each parcel. The determination of parcels that require a Phase II ESA (for example, soil, groundwater, soil vapor subsurface investigations) would be informed by a Phase I ESA and may require coordination with state and local agency officials.</p>	SJRRC	Prior to and/or During ROW Acquisition.					
BMP HAZ-3	<p><b>Prepare a General Construction Soil Management Plan.</b> Prior to construction, SJRRC will ensure that a General Construction Soil Management Plan be prepared, which will include general provisions for how soils will be managed within the Project Study Area for the duration of construction. General soil management controls to be implemented by the contractor, and the following topics, shall be addressed within the Soil Management Plan:</p> <ul style="list-style-type: none"><li>• General worker health and safety procedures</li><li>• Dust control</li><li>• Management of soil stockpiles</li><li>• Traffic control</li><li>• Stormwater erosion control using BMPs</li></ul>	SJRRC	Prior to Construction.					
BMP HAZ-4	<p><b>Prepare Parcel-Specific Soil Management Plans and Health and Safety Plans (HASPs).</b> Prior to construction, SJRRC will ensure that parcel-specific Soil Management Plans be prepared for known contaminated sites and LUST-adjudicated sites for submittal and approval by DTSC. The plans shall include specific hazards and provisions for how soils will be managed for known contaminated sites and LUST-adjudicated sites. The nature and extent of contamination varies widely across the Project Study Area, and the parcel-specific Soil Management Plan shall provide parcel-specific requirements addressing the following:</p> <ul style="list-style-type: none"><li>• Soil disposal protocols</li><li>• Protocols governing the discovery of unknown contaminants</li><li>• Soil management on properties within the Project Study Area</li></ul> <p>Prior to construction on individual properties with LUSTs or known contaminants, a parcel-specific HASP shall also be prepared for submittal</p>	SJRRC	Prior to Construction.					

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
							</

Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
BMP HAZ-8	shall halt in the event of the discovery of unidentified underground storage tanks (UST), unexpected contamination, or hazardous waste or materials to allow UST decommissioning, field screening, material testing, mitigation, and contaminant management. If an unexpected release of hazardous substances is found in reportable quantities, the National Response Center must be notified by calling 1-800-424-8802, and cleanup must be coordinated with environmental agencies.	SJRRRC		Prior to Demolition of Any Structures.				
	<b>Pre-Demolition Investigation.</b> Prior to the demolition of any structures constructed prior to the 1970s, SJRRRC will ensure that a survey be conducted for the presence of hazardous building materials, such as ACMs, LBPs, and other materials falling under the Universal Waste requirements. The results of this survey shall be submitted to SJRRRC and applicable stakeholders, as deemed appropriate by SJRRRC. If any hazardous building materials are discovered, prior to demolition of any structures, a plan for proper removal shall be prepared in accordance with applicable OSHA and San Joaquin County Environmental Health Department requirements. The contractor performing the work shall be required to implement the removal plan. If asbestos-related work is required, the contractor or their subcontractor shall be required to possess a California Contractor License (Asbestos Certification). Prior to any demolition activities, the contractor shall be required to secure the site and ensure utilities are disconnected.							
BMP HAZ-9	<b>Limit Use of Extremely Hazardous Materials Near Schools During Construction.</b> During construction, SJRRRC will ensure that the contractor shall not handle an extremely hazardous substance (as defined in California Public Resources Code Section 21151.4) or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code within 0.25 mile of a school. The contractor would be required to monitor all use of extremely hazardous substances.	SJRRRC		During Construction				
Air Quality								
BMP AQ-1	<b>Compliance with EPA’s Tier 4 Exhaust Emission Standards.</b> During construction, SJRRRC will ensure that all off-road diesel-powered construction equipment greater than 50 horsepower shall comply with EPA’s Tier 4 Final exhaust emission standards (40 CFR Part 1039). In addition, if not already supplied with a factory equipped diesel particulate filter, all construction equipment shall be outfitted with Best Available Control Technology devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.	SJRRRC		During Construction.				
BMP AQ-2	<b>Fugitive Dust.</b> Prior to issuance of a grading or building permit, SJRRRC shall submit the dust control plan to SJVAPCD for review and approval	SJRRRC		Prior to Issuance of Grading Permits.				

Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
BMP AQ-3	and shall provide the plan to the County to demonstrate compliance with SJVAPCD Regulation VIII (Fugitive PM10 Prohibition). The plan shall address construction-related dust as required by SJVAPCD.  <b>Compliance with Stockton Community Emissions Reduction Program.</b> During final design, SJRRC will review the Stockton Community Emissions Reduction Program (CERP) and incorporate emission reduction strategies into the Project, as feasible. The emissions reduction strategies in the Stockton CERP will include, but will not be limited to, enhancing community participation in land use processes, the deployment of zero and near-zero emission Heavy-Heavy Duty (HHD) trucks, HHD truck rerouting analyses, reducing HHD truck idling, and incorporating vegetative barriers and urban greening.	SJRRC	During Final Design.					
BMP AQ-4	<b>Vegetative Barriers and Urban Greening.</b> During final design, SJRRC will evaluate the feasibility of incorporating vegetative barriers and urban greening as a measure to potentially reduce air pollution exposure on sensitive receptors in the Project Study Area. Examples of vegetative barriers will include, but are not limited to, trees, bushes, shrubs, or a mix of these types of vegetation.	SJRRC	During Final Design.					
Noise and Ground Borne Vibration								
BMP NV-1	<b>Noise Control Plan.</b> Prior to construction, SJRRC will ensure that a noise control plan be prepared that will incorporate, at a minimum, the following best practices into the construction scope of work and specifications to reduce the effects of temporary construction-related noise on nearby noise-sensitive receptors. The Noise Control Plan will be developed in coordination with the City of Stockton in compliance with City standards. Components of the Noise Control Plan will include, but not be limited to, the following:  <ul style="list-style-type: none"><li>• Install temporary construction site sound barriers near noise sources.</li><li>• Use moveable sound barriers at the source of the construction activity.</li><li>• Avoid the use of impact pile drivers at night and, where possible, near noise-sensitive areas or use quieter alternatives (for example, drilled piles) where geological conditions permit.</li><li>• Locate stationary construction equipment as far as possible from noise-sensitive sites.</li><li>• Re-route construction-related truck traffic along roadways that will cause the least disturbance to residents.</li><li>• Use low-noise emission equipment.</li><li>• Implement noise-deadening measures for truck loading and operations.</li><li>• Line or cover storage bins, conveyors, and chutes with sound-deadening material.</li><li>• Use acoustic enclosures, shields, or shrouds for equipment and facilities.</li></ul>	SJRRC	Prior to Construction.					



Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed  Date / Initials	Construction Task Completed  Date / Initials	Environmental Compliance  YESNO	
BMP NV-2	<ul style="list-style-type: none"><li>Use high-grade engine exhaust silencers and engine-casing sound insulation.</li><li>Minimize the use of generators to power equipment.</li><li>Limit use of public address systems.</li><li>Grade surface irregularities on construction sites.</li><li>Monitor and maintain equipment to meet noise limits.</li><li>Implement noise monitoring during construction to ensure noise limits are met.</li><li>Maintain active coordination with the City to identify potential options to retrofit residences closest to the construction with noise reduction window technology.</li><li>Establish an active community liaison program to keep residents informed about construction and to provide a procedure for addressing complaints.</li></ul>	SJRRRC	Prior to Construction.					
	<p><b>Vibration Control Plan.</b> Prior to construction, SJRRRC will ensure that a vibration control plan is prepared and will incorporate, at a minimum, the following best practices into the construction scope of work and specifications to reduce the effects of temporary construction-related vibration on nearby vibration-sensitive land uses will be prepared and implemented.</p>							
	<ul style="list-style-type: none"><li>Avoid the use of impact pile drivers where possible near vibration-sensitive areas or use alternative construction methods (for example, drilled piles) where geological conditions permit.</li><li>Avoid vibratory compacting/rolling in close proximity to structures.</li><li>Require vibration monitoring during vibration-intensive activities.</li></ul> <p>In the event building damage occurs due to construction, repairs would be made, or compensation would be provided by SJRRRC.</p>							
Biological Resources								
BMP BIO-1	<p><b>Biological Monitor and Environmental Awareness Training.</b> If deemed necessary, SJRRRC will ensure that a qualified biologist(s) will monitor activities that could affect special-status species and/or sensitive biological resources within the BSA. The amount and duration of monitoring will depend on the activity and will be determined by the qualified biologist. The duties of the qualified biologist shall comply with all agency conditions outlined in Project-related permits, but could include activities such as clearance surveys, flagging or fencing off environmentally sensitive areas for avoidance, and construction monitoring. The biological monitor will conduct preconstruction clearance surveys for special status species prior to the start of Project activities and implement all biological resources avoidance and minimization measures and applicable SJMSCP Incidental ITMMs. In addition, a qualified biologist shall be retained to conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be</p>	SJRRRC	During Construction (if deemed necessary by Project biologist)					

Best Management Practice (BMP)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
				Date / Initials	Date / Initials	YES	NO
<p>provided to all construction personnel to brief them on the identified location of sensitive biological resources, including how to identify species (visual and auditory) most likely to be present, the need to avoid adverse effects on biological resources (for example, plants, wildlife, and jurisdictional waters), and to brief them on the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the Project, SJRRC, will ensure that the mandatory training be conducted by the contractor prior to starting work on the Project.</p> <p><b>BMP BIO-2</b></p> <p><b>Migratory Bird and Raptor Surveys and Nest Avoidance.</b> Prior to and during construction, SJRRC will ensure that if vegetation clearing and/or construction activities are scheduled to occur during the migratory bird nesting season (February 1 to September 15), then pre-construction surveys to identify active migratory bird and/or raptor nests will be conducted by a qualified biologist no more than 7 days prior to construction initiation. If active nest sites are identified in the survey area, a no-disturbance buffer will be established for all active nest or burrow sites prior to commencement of any Project-related activities. The size of the no-disturbance buffer will vary and will be determined by a qualified biologist based on the species, activities near the nest, and topographic and other visual barriers, or as otherwise required through the SJMSCP (as described in SJMSCP ITMM 5.2.4.17, 5.2.4.18, and 5.2.4.19). A qualified biologist will monitor any active nest until the nest is deemed inactive and the no disturbance buffer can be removed. The amount and duration of the monitoring will be determined by a qualified biologist and will depend on the same factors described above when determining the size of the no-disturbance buffer.</p> <p><b>BMP BIO-3</b></p> <p><b>Construction BMPs at Mormon Slough.</b> During final design, SJRRC will ensure that construction best management practices will be employed on-site to prevent erosion or runoff of loose soil and dust. Methods will include the use of appropriate measures to intercept and capture sediment prior to entering aquatic resources, as well as erosion control measures along the perimeter of disturbance areas to prevent the displacement of fill material. All best management practices shall be in place prior to initiation of Project-related activities and shall remain until activities are completed. All erosion control methods will be maintained until all onsite soils are stabilized.</p> <p><b>BMP BIO-4</b></p> <p><b>Environmentally Sensitive Area Fencing at Mormon Slough.</b> Prior to and during construction, SJRRC will ensure that work areas will be reduced to the smallest practicable footprint throughout the duration of construction activities. Prior to any ground-disturbing activity, SJRRC will ensure that staging areas for construction equipment be stored in areas that minimize adverse effects on sensitive biological resources, including aquatic resources. Staging areas (including any temporary material storage areas) will be located in areas that will be occupied by permanent facilities, where practicable. Equipment staging areas will be identified on</p>	SJRRC	Prior to and During Construction					
	SJRRC	During Final Design					
	SJRRC	Prior to and During Construction					

Best Management Practice (BMP)		Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed Date / Initials	Construction Task Completed Date / Initials	Environmental Compliance YESNO	
BMP BIO-5	<p>final project construction plans. SJRRC, will ensure to flag and mark access routes to restrict vehicle traffic within the Project footprint to established roads, construction areas and other designated areas.</p> <p><b>Restoration of Temporarily Affected Areas.</b> During construction, SJRRC will ensure that all exposed and/or disturbed areas resulting from Project-related activities will be returned to its original contour and grade, and restored using locally native grass and forb seeds, plugs, or a mix of the two. Areas shall be seeded with species appropriate to their topographical and hydrological character. Seeded areas shall be covered with broadcast straw and/or jute netted, where appropriate.</p>	SJRRC	During Construction					
BMP BIO-6	<p><b>Vehicle Access and Speed Limits.</b> During construction, SJRRC will ensure that all vehicle traffic associated with Project-related activities will be confined to established roads, staging areas, and parking areas. Vehicle speeds will not exceed 15 miles per hour on access roads with no posted speed limit to avoid collisions with special-status species or habitats. Additionally, maintenance or refueling of vehicles or equipment must occur in designated areas and/or a secondary containment, located away from aquatic resources.</p>	SJRRC	During Construction					
BMP BIO-7	<p><b>Storage and Disposal of Excavated Materials.</b> During ground-disturbing activities, SJRRC may temporarily store excavated materials produced by construction activities in areas at or near construction sites within the Project footprint. Where practicable, SJRRC, will return excavated soil to its original location to be used as backfill. Any excavated waste materials unsuitable for treatment and reuse would be disposed at an off-site location, in conformance with applicable state and federal laws. Stockpiled, disassembled, and hazardous construction material should be stored at least 100 feet from aquatic resources, where possible.</p>	SJRRC	During Construction					
BMP BIO-8	<p><b>Prevention of Invasive Species During Construction.</b> Prior to and during construction, SJRRC will ensure that all construction equipment be cleaned when entering work areas within or adjacent to Environmentally Sensitive Areas, and the Project Study Area be inspected for the presence of invasive weeds prior to and during construction to detect introduction or spread. The use of eradication strategies and the incorporation of recommended measures, as needed, to avoid the inadvertent spread of invasive weeds in association with the Project will also be incorporated during construction activities.</p>	SJRRC	Prior to and During Construction					

Table R-2. Mitigation Measures

Mitigation Measure (MM)		Responsible for Development and/or Implementation of Measure	Timing/ Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
Land Use and Planning								
MM LU-1	<b>General Plan Amendment.</b> During final design and prior to construction, SJRRC will coordinate with the City of Stockton to ensure that the City of Stockton’s General Plan is amended to reflect the land use designations consistent with what has been identified by the Project	SJRRC	During Final Design.					
Relocations and Real Property Acquisition								
MM RLC-1	<b>Relocation Assistance.</b> During final design, SJRRC will ensure that the loss of private industrial property be mitigated by payment of fair market compensation and provision of relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. For these non-residential displacements, the following would be provided to business operators: <ul style="list-style-type: none"><li>Relocation advisory services</li><li>Minimum 90 days written notice to vacate prior to requiring possession</li><li>Reimbursement for moving and reestablishment expenses</li></ul>	SJRRC	During Final Design.					
MM RLC-2	<b>Property Ownership and Agreement Coordination Efforts.</b> During final design SJRRC will ensure coordination with the City and UP to determine appropriate property ownership and establish agreements prior to the ROW acquisition process. Options to address property ownership may include, but not be limited to: <ul style="list-style-type: none"><li>Continuing City ownership and maintenance of the street corridors with permanent easements required for the railroad corridor; or</li><li>SJRRC and/or railroad company ownership and maintenance of the properties within the railroad corridor with either SJRRC or private ownership of adjacent remnant parcels. Public Utility easements would be necessary for this option.</li></ul>	SJRRC	During Final Design.					
Noise and Ground Borne Vibration								
MM NV-1	<b>Reductions for Severe Noise Effects.</b> Prior to construction, SJRRC will ensure that sound insulation improvements will be installed in the residential properties that would be exposed to severe noise impacts. The goal of these improvements is to reduce the interior noise levels to below the 45 dBA Ldn noise threshold set by the U.S. Department of Housing and Urban Development. In addition to the façade improvements a form of fresh air exchange must be maintained. The air exchange can be achieved by installing an air conditioning unit for the residence. Sound insulation is normally only used on older dwellings with single-paned windows or in buildings with double-paned windows that are no longer effective because of leakage. Sound insulation testing would be conducted to determine the appropriate measures to improve the outdoor to indoor sound level reduction, such as improved windows, doors or vents.	SJRRC	Prior to Construction.					

Mitigation Measure (MM)		Responsible for Development and/or Implementation of Measure	Timing/Phase	Action(s) Taken to Implement Measure/if checked No, add Explanation here	Final Design Task Completed	Construction Task Completed	Environmental Compliance	
					Date / Initials	Date / Initials	YES	NO
Biological Resources								
MM BIO-1	<b>Compliance with SJMSCP.</b> Prior to and during construction, SJRRC will ensure compliance of the Project with all applicable standards and regulations set forth in the SJMSCP, as well as all applicable Incidental Take Avoidance Measures identified within the SJMSCP.	SJRRC	Prior to and During Construction.					
MM BIO-2	<b>National Oceanic and Atmospheric Administration Consultation.</b> Prior to the finalizing the EA, SJRRC will implement all commitments and avoidance and minimization measures identified in the National Marine Fisheries Service Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response issued for the Project on May 17, 2021 (Appendix M). SJRRC will ensure that consultation with the NOAA Fisheries Service for Project effects on designated Critical Habitat for Central Valley steelhead and EFH for Chinook Salmon are finalized and any findings and/or determinations incorporated. SJRRC will implement a crossing type for the structure spanning the Mormon Slough that will retain a natural substrate stream channel bottom as part of this consultation. In addition, SJRRC will avoid the use of rip-rap to armor the channel at this location.	SJRRC	Prior to the Finalizing of the EA.					
MM BIO-3	<b>Mitigation for Aquatic Resources.</b> During final design, SJRRC will ensure that temporary Project impacts effects on aquatic resources associated with the Mormon Slough will be restored in-place and permanent Project effects on aquatic resources to the Mormon Slough will be mitigated at a minimum 1:1 ratio. Mitigation can include on-site restoration, in-lieu fee payment, or purchase of mitigation credits at an agency-approved mitigation bank.	SJRRC	During Final Design.					
MM BIO-4	<b>Compliance with Permitted Mitigation Measures.</b> Prior to construction, SJRRC will obtain all required permits and authorizations for Project impacts effects to on the Mormon Slough, which may include the preparation and submittal of the following applications: <ul style="list-style-type: none"><li>Pre-Construction Notification to USACE to use a Nationwide Permit for any Project impacts to Waters of the US subject to Section 404 of the federal Clean Water Act.</li><li>Water Quality Certification Application to Central Valley RWQCB for any Project impacts to Waters of the U.S. subject to Section 401 of the federal Clean Water Act.</li><li>Streambed Alteration Agreement Notification to CDFW</li></ul>	SJRRC	Prior to Construction.					
MM BIO-5	<b>Preparation of Formal Jurisdictional Delineation.</b> During final design, SJRRC will ensure that a formal field-delineation of aquatic resources the Project, to be verified by the regulatory agencies, will be conducted in order to confirm the exact extent of jurisdictional resources impacted by the Project.	SJRRC	During Final Design.					



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## Attachment B. Section 106 Consultation Efforts

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## Appendix H. Section 106 Consultation Efforts



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## H.1 Section 106 Consultation Correspondence



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## Communication Log

**Project** Stockton Diamon Grade Separation Project  
**Subject** Communications with interested parties re: historic resources  
**Notes Prepared By** Toni Webb, JRP Historical Consulting, LLC

**Notes:**

Interested Party	Communication Date	Notes
San Joaquin County Historical Society & Museum P. O. Box 30, Lodi, California 95241-0030 Phone: (209) 331-2055 Email: info@sanjoaquinhistory.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
Haggin Museum 1201 N. Pershing Ave. Stockton, CA 95203-1699 Phone: (209) 940-6300 Email: info@hagginmuseum.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
San Joaquin Genealogical Society P.O. Box 690243 Stockton, California 95269-0243 Email: AskUs@sjgensoc.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
City of Stockton Cultural Heritage Board c/o Community Development Department 345 North El Dorado Street Stockton, CA 95202-1997 Phone: (209) 937-8444	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	No follow-up message sent because interested party has no listed email.



**SAN JOAQUIN  
REGIONAL  
RAIL COMMISSION**

Chair, **Christina Fugazi**, City of Stockton  
Vice-Chair, **Leo Zuber**, City of Ripon  
Commissioner, **Debby Moorhead**, City of Manteca  
Commissioner, **Doug Kuehne**, City of Lodi

Executive Director, **Stacey Mortensen**

Commissioner, **Nancy Young**, City of Tracy  
Commissioner, **Bob Elliott**, San Joaquin County  
Commissioner, **Scott Haggerty**, Alameda County  
Commissioner, **John Marchand**, City of Livermore

October 29, 2020

RE: Stockton Diamond Project

To Whom It May Concern:

The San Joaquin Regional Rail Commission (SJRRRC) and California High Speed Rail Authority (CHSRA) propose to replace an at-grade crossing of the Union Pacific Railroad (UPRR) and Burlington Northern & Santa Fe Railway Company (BNSF) rail lines with a railroad grade separation. Rail-over-rail grade separation is a method of aligning a junction of two or more at-grade rail lines at different heights (grades) so that they will not disrupt the traffic flow on each other's transit routes when they converge at the junction point. Grade separations generally allow rail to move freely, with fewer interruptions, and at higher overall speeds. In addition, reducing the complexity of traffic movements at a junction between at-grade rail lines—coupled with vehicular, bicycle, and pedestrian traffic—reduces the potential for rail, vehicle, and bicycle/pedestrian conflicts. The "Stockton Diamond," where the UPRR and BNSF tracks converge and cross one another at grade, is located in the City of Stockton. The general project limit extends southward from Weber Street to the UPRR Stockton Yard, and from Stanislaus Street eastward to Pilgrim Street. See the enclosed map.

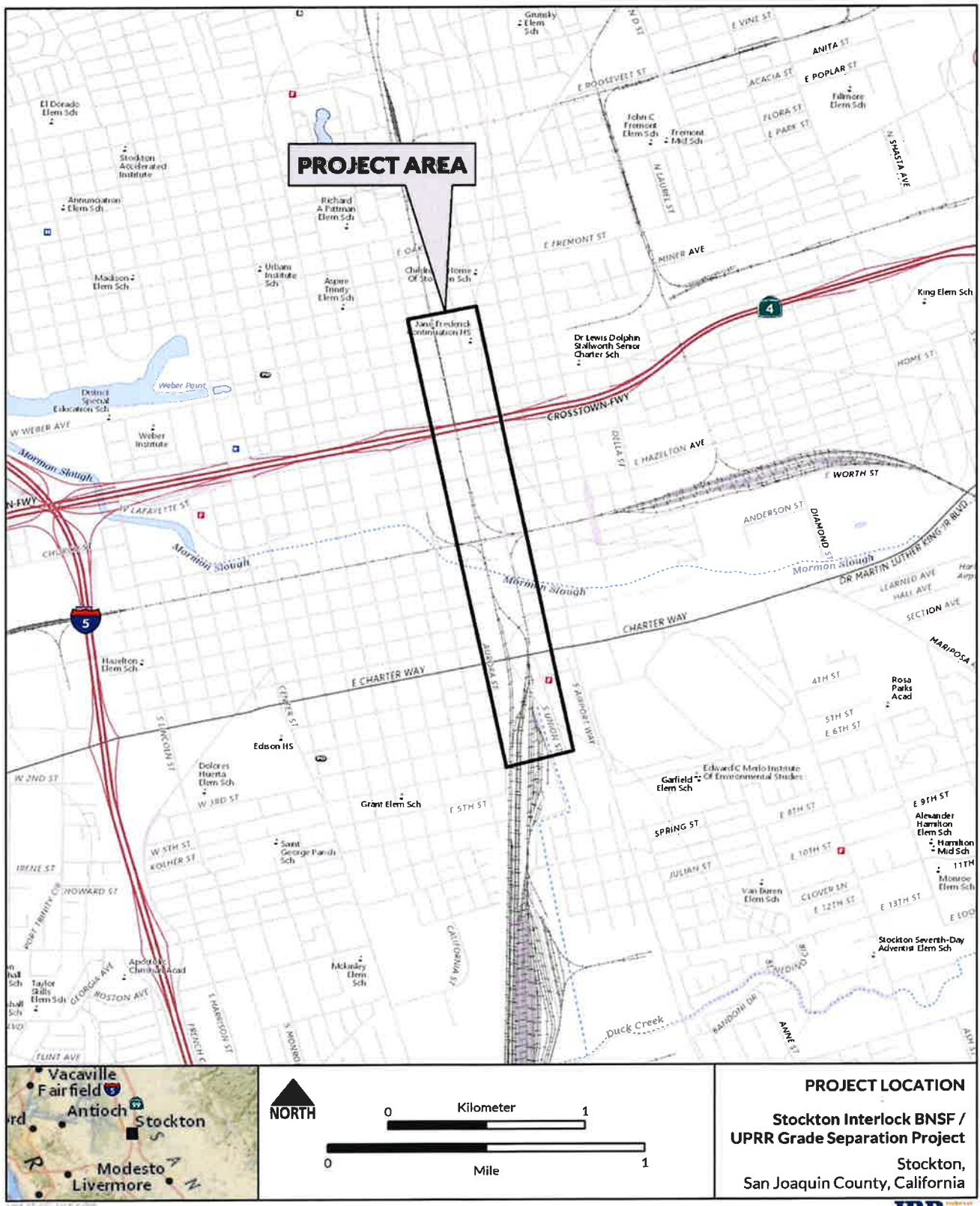
JRP Historical Consulting, LLC (JRP) has been retained to conduct a study to survey and evaluate historic-era buildings and structures that may be affected by the proposed project for their eligibility to be listed in the National Register of Historic Places and/or the California Register of Historical Resources. JRP's study will be prepared to support the project's environmental compliance under the National Environmental Policy Act (NEPA), along with its compliance under Section 106 of the National Historic Preservation Act and its implementing regulations in Title 36 Code of Federal Regulations Part 800 (36 CFR 800). JRP's study will also be prepared for project compliance under the and California Environmental Quality Act (CEQA), as per CEQA Guidelines Section 15064.5. CHSRA is lead NEPA agency, and SJRRRC is the lead CEQA agency.

If you or your organization has any information or concerns regarding historic resources in the area that could be affected by this project, please respond via email to JRP Architectural Historian, Toni Webb, at [twebb@jrphistorical.com](mailto:twebb@jrphistorical.com), or in writing to her at JRP Historical Consulting, LLC, 2850 Spafford Street, Davis, CA 95618, within the next thirty (30) days. Please note, this is not a request for research, just for information. Thank you for any assistance you can provide.

Sincerely,

Kevin Sheridan  
Director of Capital Projects

Enclosures: Project Area Map





**List of Recipients**

San Joaquin County Historical Society and Museum  
P. O. Box 30, Lodi, California 95241-0030  
Phone: (209) 331-2055  
Email: [info@sanjoaquinhistory.org](mailto:info@sanjoaquinhistory.org)

City of Stockton Cultural Heritage Board  
c/o Community Development Department  
345 North El Dorado Street  
Stockton, CA 95202-1997  
Telephone: (209) 937-8444

Haggin Museum  
1201 N. Pershing Ave.  
Stockton, CA 95203-1699  
Phone: (209) 940-6300  
Email: [info@hagginmuseum.org](mailto:info@hagginmuseum.org)

San Joaquin Genealogical Society  
P.O. Box 690243  
Stockton, California 95269-0243  
Email: [AskUs@sjgensoc.org](mailto:AskUs@sjgensoc.org)

## Toni Webb

---

**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:21 AM  
**To:** info@hagginmuseum.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*

## Toni Webb

---

**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:22 AM  
**To:** AskUs@sjgensoc.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*

## Toni Webb

---

**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:19 AM  
**To:** info@sanjoaquinhistory.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*



STATE OF CALIFORNIA

Gavin Newsom, Governor

## NATIVE AMERICAN HERITAGE COMMISSION

May 12, 2020

Liz Denniston  
Paleo Solutions, Inc.

Via Email to: [liz@paleosolutions.com](mailto:liz@paleosolutions.com)  
Cc: [canutes@verizon.net](mailto:canutes@verizon.net)

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West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

### Re: Stockton Diamond Grade Separation, San Joaquin County

Dear Ms. Denniston :

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the North Valley Yokuts Tribe on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: [Nancy.Gonzalez-Lopez@nahc.ca.gov](mailto:Nancy.Gonzalez-Lopez@nahc.ca.gov).

Sincerely,

Nancy Gonzalez-Lopez  
Cultural Resources Analyst  
Attachment

**Native American Heritage Commission  
Native American Contact List  
San Joaquin County  
5/12/2020**

***North Valley Yokuts Tribe***

Katherine Perez, Chairperson  
P.O. Box 717  
Linden, CA, 95236  
Phone: (209) 887 - 3415  
canutes@verizon.net

Costanoan  
Northern Valley  
Yokut

***The Confederated Villages of  
Lisjan***

Corrina Gould, Chairperson  
10926 Edes Avenue  
Oakland, CA, 94603  
Phone: (510) 575 - 8408  
cvltribe@gmail.com

Bay Miwok  
Ohlone  
Delta Yokut

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Stockton Diamond Grade Separation, San Joaquin County.

PROJ-2020-  
002689

05/12/2020 09:12 AM

1 of 1





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GOVERNOR



December 21, 2020

Ms. Katherine Perez  
Chairperson  
North Valley Yokuts Tribe  
P.O. Box 717  
Linden, CA 95236

Re: Invitation to Consult under Section 106 for the Stockton Diamond Grade Separation Project, San Joaquin County, California

Dear Ms. Perez,

The San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High-Speed Rail Authority (Authority) under assignment by the Federal Railroad Administration (FRA), is proposing the Stockton Diamond Grade Separation Project (proposed Project) to improve operational efficiency at the at-grade crossing of the Union Pacific Railroad (UPRR) and BNSF Railway (BNSF) freight lines (Stockton Diamond or Diamond) in the city of Stockton, San Joaquin County, California.

Please consider this letter and preliminary Project information as Project notification and initiation of Section 106 consultation for the Project pursuant to the National Historic Preservation Act. Please respond within 30 days if you would like to consult on this Project and provide a designated lead contact person.

SJRRRC is the lead agency for consultation under AB 52 and you should have received letters initiating AB 52 consultation on November 9, 2020. The Authority, under assignment by the FRA, is the lead agency for consultation under Section 106.

**Project Location and Setting**

The proposed Project is located in the city of Stockton in San Joaquin County, California (see Attachment A: Project Overview Maps). The northern Project limit connects to the existing UPRR tracks between Main and Weber Streets. The southern Project limit is the UPRR Stockton Yard. Two BNSF main line tracks run east to west through the proposed Project area. The study limit generally reaches to Stanislaus Street in the west and to Pilgrim Street in the east.

**Project Description**

Substantial freight movements between the Port of Stockton and points east, north, and south must pass through the Stockton Diamond. The at-grade nature of the Diamond is an operational constraint that results in delays to the regional rail network where these two heavily traveled rail lines intersect. The proposed Project would construct a flyover structure to provide the vertical clearance required by both railroads to grade separate the existing crossing of the UPRR and BNSF tracks at the Diamond. It is anticipated that

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Commissioner, **Bob Elliott**, San Joaquin County  
Commissioner, **Scott Haggerty**, Alameda County  
Commissioner, **John Marchand**, City of Livermore

November 9, 2020

Ms. Katherine Perez  
Chairperson  
North Valley Yokuts Tribe  
P.O. Box 717  
Linden, CA 95236

Re: Invitation to Consult under Assembly Bill (AB) 52 for the Stockton Diamond Grade Separation Project, San Joaquin County, California

Dear Ms. Perez,

The San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High Speed Rail Authority (CHSRA) under assignment by the Federal Railroad Administration (FRA), is proposing the Stockton Diamond Grade Separation Project (proposed Project) to improve operational efficiency at the at-grade crossing of the Union Pacific Railroad (UPRR) and BNSF Railway (BNSF) freight lines (Stockton Diamond or Diamond) in the city of Stockton, San Joaquin County, California.

Please consider this letter and preliminary project information as formal notification of the proposed Project as required under the California Environmental Quality Act, specifically Public Resources Code (PRC) 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52). Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project and provide a designated lead contact person.  
Project Location and Setting

The proposed Project is located in the city of Stockton in San Joaquin County, California (see Attachment A: Project Overview Maps). The northern Project limit connects to the existing UPRR tracks between Main and Weber Streets. The southern Project limit is the UPRR Stockton Yard. Two BNSF main line tracks run east to west through the proposed Project area. The study limit generally reaches to Stanislaus Street in the west and to Pilgrim Street in the east.  
Project Description

Substantial freight movements between the Port of Stockton and points east, north, and south must pass through the Stockton Diamond. The at-grade nature of the Diamond is an operational constraint that results in delays to the regional rail network where these two heavily traveled rail lines intersect. The proposed Project would construct a flyover structure to provide the vertical clearance required by both railroads to grade separate the existing crossing of the UPRR and BNSF tracks at the Diamond. It is anticipated that UPRR long-haul freight service and current Amtrak and Altamont Commuter Express (ACE) rail services would use the new flyover tracks during operations.



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Honorable Jim Beall

Brian P. Kelly  
CHIEF EXECUTIVE OFFICER

GAVIN NEWSOM  
GOVERNOR



December 21, 2020

Ms. Corrina Gould  
Chairperson  
The Confederated Villages of Lisjan  
10926 Edes Avenue  
Oakland, CA 94603

Re: Invitation to Consult under Section 106 for the Stockton Diamond Grade Separation Project, San Joaquin County, California

Dear Ms. Gould,

The San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High-Speed Rail Authority (Authority) under assignment by the Federal Railroad Administration (FRA), is proposing the Stockton Diamond Grade Separation Project (proposed Project) to improve operational efficiency at the at-grade crossing of the Union Pacific Railroad (UPRR) and BNSF Railway (BNSF) freight lines (Stockton Diamond or Diamond) in the city of Stockton, San Joaquin County, California.

Please consider this letter and preliminary Project information as Project notification and initiation of Section 106 consultation for the Project pursuant to the National Historic Preservation Act. Please respond within 30 days if you would like to consult on this Project and provide a designated lead contact person.

SJRRRC is the lead agency for consultation under AB 52 and you should have received letters initiating AB 52 consultation on November 9, 2020. The Authority, under assignment by the FRA, is the lead agency for consultation under Section 106.

**Project Location and Setting**

The proposed Project is located in the city of Stockton in San Joaquin County, California (see Attachment A: Project Overview Maps). The northern Project limit connects to the existing UPRR tracks between Main and Weber Streets. The southern Project limit is the UPRR Stockton Yard. Two BNSF main line tracks run east to west through the proposed Project area. The study limit generally reaches to Stanislaus Street in the west and to Pilgrim Street in the east.

**Project Description**

Substantial freight movements between the Port of Stockton and points east, north, and south must pass through the Stockton Diamond. The at-grade nature of the Diamond is an operational constraint that results in delays to the regional rail network where these two heavily traveled rail lines intersect. The proposed Project would construct a flyover structure to provide the vertical clearance required by both railroads to grade separate the existing crossing of the UPRR and BNSF tracks at the Diamond. It is anticipated that

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Commissioner, **Nancy Young**, City of Tracy  
Commissioner, **Bob Elliott**, San Joaquin County  
Commissioner, **Scott Haggerty**, Alameda County  
Commissioner, **John Marchand**, City of Livermore

November 9, 2020

Ms. Corrina Gould  
Chairperson  
The confederated Villages of Lisjan  
10926 Edes Avenue  
Oakland, CA 94603

Re: Invitation to Consult under Assembly Bill (AB) 52 for the Stockton Diamond Grade Separation Project, San Joaquin County, California

Dear Ms. Gould,

The San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High Speed Rail Authority (CHSRA) under assignment by the Federal Railroad Administration (FRA), is proposing the Stockton Diamond Grade Separation Project (proposed Project) to improve operational efficiency at the at-grade crossing of the Union Pacific Railroad (UPRR) and BNSF Railway (BNSF) freight lines (Stockton Diamond or Diamond) in the city of Stockton, San Joaquin County, California.

Please consider this letter and preliminary project information as formal notification of the proposed Project as required under the California Environmental Quality Act, specifically Public Resources Code (PRC) 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52). Please respond within 30 days, pursuant to PRC 21080.3.1(d) if you would like to consult on this project and provide a designated lead contact person.  
Project Location and Setting

The proposed Project is located in the city of Stockton in San Joaquin County, California (see Attachment A: Project Overview Maps). The northern Project limit connects to the existing UPRR tracks between Main and Weber Streets. The southern Project limit is the UPRR Stockton Yard. Two BNSF main line tracks run east to west through the proposed Project area. The study limit generally reaches to Stanislaus Street in the west and to Pilgrim Street in the east.

Project Description

Substantial freight movements between the Port of Stockton and points east, north, and south must pass through the Stockton Diamond. The at-grade nature of the Diamond is an operational constraint that results in delays to the regional rail network where these two heavily traveled rail lines intersect. The proposed Project would construct a flyover structure to provide the vertical clearance required by both railroads to grade separate the existing crossing of the UPRR and BNSF tracks at the Diamond. It is anticipated that UPRR long-haul freight service and current Amtrak and Altamont Commuter Express (ACE) rail services would use the new flyover tracks during operations.



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## **H.2 State Historic Preservation Office (SHPO) Finding of Effect Concurrence**





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DEPARTMENT OF PARKS AND RECREATION  
OFFICE OF HISTORIC PRESERVATION

Armando Quintero, Director

Julianne Polanco, State Historic Preservation Officer

1725 23rd Street, Suite 100, Sacramento, CA 95816-7100

Telephone: (916) 445-7000

FAX: (916) 445-7053

calshpo.ohp@parks.ca.gov

[www.ohp.parks.ca.gov](http://www.ohp.parks.ca.gov)

December 9, 2021

VIA ELECTRONIC MAIL

In reply refer to: FRA\_2021\_0226\_001

Mr. Brett Rushing, Cultural Resources Program Manager  
California High-Speed Rail Authority  
707 L Street, Suite 620  
Sacramento, CA 05814

Subject: Continuing Section 106 Consultation on the Finding of Effect for the Stockton Diamond Grade Separation Project, San Joaquin County, California.

Dear Mr. Rushing:

The Office of Historic Preservation (OHP) is in receipt a letter dated November 12, 2021 in which the San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High-Speed Rail Authority (Authority) as assigned by the Federal Railroad Administration (FRA), is continuing consultation on the above referenced undertaking. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this undertaking are being, or have been, carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the FRA and the State of California. The November 2021 *Section 106 Addendum to the Finding of Effect Report: Stockton Diamond Grade Separation Project; Stockton, San Joaquin County, California* (Addendum FOE) is enclosed with the letter.

In previous consultation, a Finding of Effect (FOE) was transmitted to the SHPO for review and comment on August 4, 2021. However, this FOE was limited to the undertaking's effects to the built historic properties identified in the previously submitted *Historic Resources Inventory and Evaluation Report* (May 2021). For the current consultation, the Addendum FOE assesses the undertaking's potential to effect archaeological historic properties within the area of potential effects (APE). Based on the results of the identification efforts presented in the earlier submitted May 2021 *Archaeological Survey Report*, the Addendum FOE concludes that the undertaking will not result in adverse effects to archaeological historic properties. The Addendum FOE also provides conditions to the Authority's finding of no adverse effect, which involve archaeological and Native American monitoring of archaeological sensitive areas, and cultural resources awareness training to construction workers.

The Authority has concluded that the undertaking will have no adverse effect on historic properties. The Authority has requested my review and comment on their finding of effect for the proposed undertaking. After reviewing your letter and supporting documentation, **I agree**

Mr. Rushing  
December 9, 2021  
Page 2 of 2

FRA\_2021\_0226\_001

that a finding of *no adverse effect* is appropriate given the conditions outlined in the Addendum FOE. If you require further information, please contact Associate State Archaeologist, Alicia Perez at [Alicia.Perez@parks.ca.gov](mailto:Alicia.Perez@parks.ca.gov).

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'J' followed by a horizontal line.

Julianne Polanco  
State Historic Preservation Officer



## H.3 Finding of Effect Addendum



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**DATE:** December 9, 2021

**TO:** Office of Historic Preservation

**FROM:** California High-Speed Rail Authority

**SUBJECT:** Stockton Diamond Grade Separation Project, Stockton, San Joaquin County, California Finding of Effect Addendum for Archaeological Resources

This Finding of Effect (FOE) memorandum analyzes potential effects on archaeological resources from the Stockton Diamond Grade Separation Project (Project) in Stockton, San Joaquin County, California. The purpose of the FOE is to assist the San Joaquin Regional Rail Commission (SJRRRC), on behalf of the California High-Speed Rail Authority (Authority) as assigned by the Federal Railroad Administration (FRA), in complying with Section 106 of the National Historic Preservation Act and the implementing regulations of the Advisory Council on Historic Preservation—as these pertain to federally funded undertakings and their impacts on historic properties—and with Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines. “Historic properties” are defined as any prehistoric or historic site, district, building, structure, or object that is listed in the National Register of Historic Places (NRHP) or is eligible for inclusion in the NRHP (36 Code of Federal Regulations [C.F.R.] § 800.16(l)). The environmental review, consultation, and other actions required by applicable Federal environmental laws for this Project are being, or have been, carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the FRA and the State of California. The Authority is the federal environmental lead agency under the National Environmental Policy Act (NEPA) and SJRRRC is the state environmental lead agency under the California Environmental Quality Act (CEQA). All work was conducted in compliance with CEQA, NEPA, and applicable local regulations.

The Area of Potential Effect was transmitted to OHP for review and determined to be adequate on April 22, 2021. The findings from the pedestrian survey were documented in the *Stockton Diamond Grade Separation Project Archaeological Survey Report* (May 2021) prepared by Paleo Solutions (ASR). The ASR did not identify any archeological sites, features, or artifacts within the APE. SHPO concurred with the findings in the ASR in a formal comment letter dated July 29, 2021. The Authority determined that no archaeological resources were present in the APE; therefore, archaeological resources were not discussed in the original *Section 106 Finding of Effect Report for the Stockton Diamond Grade Separation Project* (June 2021) prepared by JRP.

### **Archival Research and Pedestrian Archaeological Field Survey Results**

A records search for the proposed Project was conducted by staff at the Central California Information Center at California State University, Stanislaus in April 2020 (Record Search File No. 11370L). The records search identified one historic-age refuse deposit (P-39- 005114/CASJO-000338H) was previously recorded in the APE, and a plaque marking the historic-age burial place of John Brown (aka Juan Flaco) (P-39-000532, California Historical Landmark #513) is adjacent to the northeast portion of APE. However, no evidence of historic- age refuse deposit P39-005114/CA-SJO-000338H was observed during the field survey. No newly-identified archaeological resources were identified as a result of the survey.



## **Tribal Consultation**

A Sacred Lands File search and AB 52 contact list was requested from the Native American Heritage Commission (NAHC) on May 8, 2020, to identify sensitive or sacred Native American resources that could be affected by the proposed Project. The NAHC responded on May 12, 2020 and reported that the search of the Sacred Lands File revealed positive results for the relevant area. No additional information on the location or nature of the positive finding was provided; however, the NAHC recommended that the North Valley Yokuts Tribe be contacted for more information.

The NAHC also provided a contact list of two Native American tribes who may have direct knowledge of tribal cultural resources in or near the APE:

- North Valley Yokuts Tribe – Katherine Perez
- The Confederated Villages of Lisjan – Corrina Gould

SJRRRC initiated AB 52 consultation with tribal governments on November 9, 2020. Outreach letters were sent to the tribal government representatives on the NAHC contact list providing information about the proposed Project and seeking input from the tribal community. The Authority initiated government-to-government consultation under Section 106 with Native American tribal governments on December 21, 2020. Representatives of the Authority and SJRRRC met with a representative of the North Valley Yokuts Tribe and the Confederated Villages of Lisjan in January and February 2021, respectively.

Measures to ensure proper treatment of any inadvertent discoveries of interest to tribal representatives during proposed Project construction activities were discussed. Specifically, Ms. Perez and Ms. Gould both stated concerns regarding the Project and requested that ground disturbing activities be monitored in the event that an inadvertent discovery occur during construction. Activities with a deeper footprint of disturbance, like the installation of footings for bridges or foundations, have greater potential for encountering intact, buried archaeological resources. Therefore, an archaeologist and Native American representative will provide a Worker Environmental Awareness Protection (WEAP) training to outline an overview of cultural (precontact and historic) and tribal cultural resources, the regulatory requirements for the protection of cultural resources, and the proper procedures in the event of an unanticipated cultural resource. The draft ASR was submitted for their review in May 2021 and both Ms. Perez and Ms. Gould re-iterated their concerns regarding subsurface precontact archaeological sensitivity and recommended monitoring.

## **Assessment of Effects**

The Criteria of Adverse Effect (36 CFR 800.5) were applied to the Project actions that have the potential to affect historic properties within the APE. An “adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.”<sup>1</sup>

Application of the criteria of adverse effect is an assessment of an undertaking’s changes to the character or use of a historic property and of how the undertaking will affect those features of a historic property that contribute to its eligibility for listing in the NRHP. Effects can be direct, indirect, and cumulative. Direct effects include such actions as physical destruction or damage, as well as those that may not physically impact the historic property but introduce visual or audible impacts that alter its

---

<sup>1</sup> 36 CFR 800.5, “Assessment of adverse effects,” incorporating amendments effective August 5, 2004.

character-defining features [36 CFR 800.5(a)(1)]. Indirect adverse effects include those that are later in time or farther removed in distance but are still reasonably foreseeable. Pursuant to 36 CFR § 800.5(b) the Authority, in consultation with SJRRC, has made a finding that the Project would have no adverse effect on archaeological historic properties within the APE when the following conditions are applied.

### **Archaeology and Tribal Monitoring**

Prior to issuance of grading permits, SJRRC, in coordination with CHSRA, shall retain an archaeological monitor as well as Native American monitors from the North Valley Yokuts Tribe and The Confederated Villages of Lisjan. The archaeological monitor, working under the direct supervision of a qualified archeologist, shall be present for Project earth-moving activities that occur within undisturbed, original ground in the Project Area. Earth moving activities include, but are not necessarily limited to excavation, trenching, grading, and drilling. One Native American monitor from the North Valley Yokuts Tribe and one Native American monitor from The Confederated Villages of Lisjan shall also be requested to be on-site during Project earth-moving activities that occur within undisturbed, original ground in the Project Area. Attendance is ultimately at the discretion of the tribes.

Areas identified for archaeological and Native American monitoring will be further refined in consultation with interested Native American tribes.

All archaeological monitors shall be familiar with the types of historical and prehistoric resources that could be encountered within the Project Area.

The qualified archaeologist shall have the ability to recommend, with written and photographic justification, the termination of monitoring efforts to SJRRC and CHSRA, and should SJRRC and the Native American monitors concur with this assessment, then monitoring shall cease.

If an inadvertent discovery of archaeological materials is made during project-related construction activities, the qualified archaeologist shall immediately be notified regarding the discovery and shall follow the process laid out under 36 CFR 800.13. If prehistoric or potential tribal cultural resources are identified, the Native American monitors shall also immediately be notified. The archaeological monitor shall have the authority to halt ground disturbing activities within 50 feet of the resource(s) and an Environmentally Sensitive Area physical demarcation shall be established.

The qualified archaeologist, in consultation with SJRRC and Native American monitors, should the find be prehistoric or a potential tribal cultural resource, and in coordination with CHSRA, shall determine whether the resource is potentially significant under Section 106 of the NHPA. Next, CHSRA shall determine actions that SJRCC can take to resolve adverse effects, and notify the SHPO and interested tribes within 48 hours of the discovery. If avoidance is not feasible, the qualified archaeologist, in consultation with SJRRC and CHSRA, shall prepare and implement a detailed treatment plan. Treatment for most archaeological resources would consist of, but would not necessarily be limited to, in-field documentation, archival research, subsurface testing, and excavation.

No work will continue within the 50-foot buffer until the qualified archaeologist, SJRRC and CHSRA, along with the Native American monitors should the find be prehistoric or a tribal cultural resource, agree to appropriate treatment.

### **Worker Environmental Awareness Protection Training**

Prior to initiating earth-moving construction activity, a qualified archaeologist, meeting the Secretary of the Interior's Standards for professional archaeology, shall ensure that a Worker Environmental Awareness Protection (WEAP) training, presented by a qualified archaeologist and with participation requested by

Native American representative(s), is provided to all construction and managerial personnel involved with the proposed Project. The WEAP training shall provide an overview of cultural (prehistoric and historic) and tribal cultural resources and outline regulatory requirements for the protection of cultural resources. The WEAP will also cover the proper procedures in the event an unanticipated cultural resource is identified during construction. The WEAP training can be in the form of a video or PowerPoint presentation. Printed literature (handouts) can accompany the training and can also be given to new workers and contractors to avoid the necessity of continuous training over the course of the proposed Project.



## H.4 Finding of Effect



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# **SECTION 106 FINDING OF EFFECT REPORT**

## **Stockton Diamond Grade Separation Project Stockton, San Joaquin County, California**



**June 2021**



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## APPENDICES

Appendix A: Area of Potential Effects Maps

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## 1. SUMMARY OF FINDINGS

This Finding of Effect (FOE) report has been prepared for the San Joaquin Regional Rail Commission's (SJRRRC) Stockton Diamond Grade Separation Project (proposed Project). The purpose of the FOE is to assist the project's lead federal agency, the California High-Speed Rail Authority (CHSRA), under assignment by the Federal Railroad Administration (FRA), in complying with Section 106 of the National Preservation Act (NHPA) and the implementing regulations of the Advisory Council on Historic Preservation in Title 36 Code of Federal Regulations Part 800 (36 CFR 800), as these pertain to federally funded undertakings and their impacts on historic properties. "Historic properties" are buildings, structures, objects, or districts that are listed in, or formally determined eligible for listing in, the National Register of Historic Places (NRHP).

This FOE presents the effects conclusions for historic properties identified in the *Historic Resources Inventory and Evaluation Report* prepared for the proposed Project in May 2021. The Area of Potential Effects (APE) is based on the project description dated October 1, 2020, as well as designs and mapping dated October 8, 2020. The APE encompasses the full extent of historic built resources, i.e. buildings, engineering structures, districts, or landscapes built or established during the historic era (in or before 1975). The APE map is in Appendix A.

The FOE analyzes potential effects on five built historic properties in the APE, as well as one historic district that intersects the APE. A summary of the five historic properties and historic district is included in Table 1. The proposed Project would not cause an adverse effect to built historic properties within the APE. Construction of the proposed Project would not require the demolition of any built historic properties and would not remove character-defining features from or alter historic setting characteristics of any built historic properties. As such, no mitigation measures for built historic properties will be developed with consulting parties.

**Table 1: Summary of Section 106 Effects Findings for Built Historic Resources**

MAP REFERENCE NUMBER	APN	RESOURCE NAME	ADDRESS	YEAR BUILT	EFFECT FINDINGS
n/a	n/a	Stockton Downtown Commercial Historic District	n/a	n/a	No Adverse Effect
3	151-190-001	Imperial Hotel	902 East Main Street	1896	No Adverse Effect
4	151-190-080	Imperial Garage n/a	20 South Aurora Street 30 South Aurora Street	ca. 1915 1918	No Adverse Effect
5	151-190-007	Hotel New York	34 South Aurora Street	1910	No Adverse Effect
6	151-190-060	n/a	915 East Market Street	ca. 1926	No Adverse Effect
7	151-220-020	Waldemar Apartments	920 East Market Street	1918	No Adverse Effect

## **2. DESCRIPTION OF UNDERTAKING**

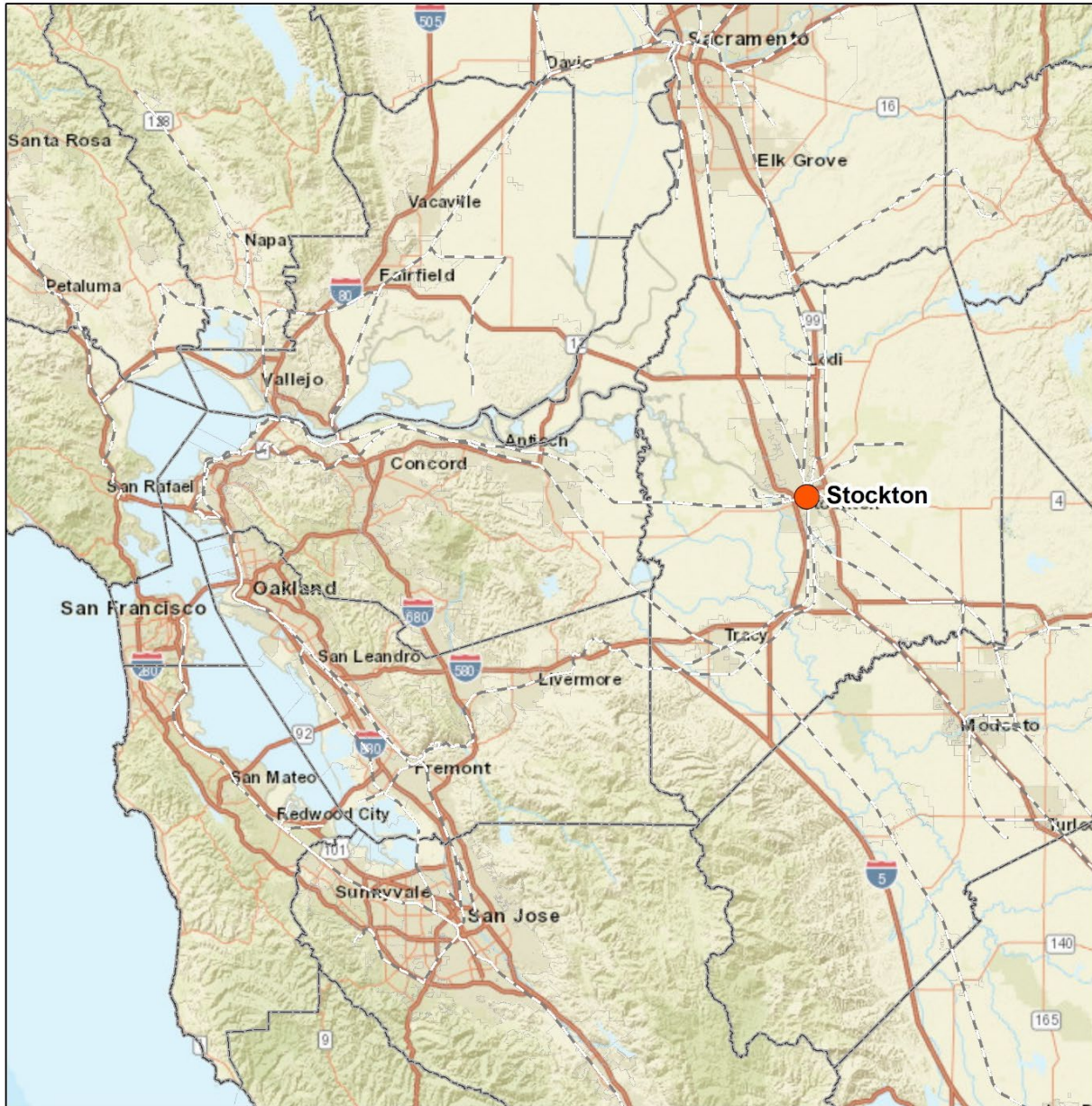
### **2.1 Introduction**

The San Joaquin Regional Rail Commission (SJRRRC) proposes to construct a grade separation of two principal railroad lines at the Stockton Diamond in Stockton, California. A combined Environmental Impact Report (EIR) and Environmental Assessment (EA) is being prepared in conformance to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), respectively. The SJRRRC as the project sponsor is the CEQA Lead Agency, and the California High Speed Rail Authority (CHSRA), under assignment by the Federal Railroad Administration (FRA), is the NEPA Lead Agency. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the FRA and the State of California.

The Stockton Diamond Grade Separation Project (proposed Project) is a critical freight and passenger mobility project. The current Altamont Corridor Express (ACE) and San Joaquins passenger rail service is constrained by the Stockton Diamond Interlock at-grade crossing which can cause reliability and on time performance schedule conflicts. The grade separation will provide a key element in SJRRRC and San Joaquin Joint Powers Authority (SJJPA) operational performance in providing service between the Central Valley, Sacramento, and San Francisco Bay Area. Figure 1 shows the general regional project location.

At the present time, the BNSF Railway (BNSF) Stockton Subdivision and the Union Pacific Railroad (UP) Fresno Subdivision consist of two main tracks each, and intersect each other at a level, at-grade crossing known as the Stockton Diamond. This rail intersection, located just south of Downtown Stockton near South Aurora Street and East Scotts Avenue, is the busiest at-grade railway junction in California. The at-grade crossing results in significant congestion and delays to service that moves people and freight throughout the Central Valley as well as freight out to the broader national network. The current, at-grade configuration of the track results in significant delays to passenger and freight trains in the area, including those serving the Port of Stockton, as well as other trains in the area. These delays limit the capacity of the Port of Stockton for growth and inhibit the Valley Rail Program ACE and San Joaquin “Extension” projects’ service reliability and on-time performance of the ACE and San Joaquins services throughout the region. Train congestion also causes local delays at roadway-rail grade crossings and potential motor vehicle, rail, bicycle, and pedestrian conflicts.

The proposed Project would construct a grade separation of the BNSF and UP rail lines to reduce rail congestion and allow for an uninterrupted flow of rail traffic through the crossing, improving freight mobility and leading to lower costs for freight shipping, reduced delays, and a decrease in fuel consumption for idling locomotives. By increasing train speeds and reducing the time that trains occupy public roadway-rail grade crossings in the City of Stockton, there would be a reduction in the time that motor vehicles, bicycles, and pedestrians will spend waiting for trains to pass. In turn, the reduction in train congestion and motor vehicle wait times at these roadway-rail grade crossings will reduce idling and air emissions.



## REGIONAL LOCATION



0 15 30 Miles

DATA SOURCE: City of Stockton (2019), ESRI, HERE, Garmin, NOAA, and USGS (2020)



- Stockton
- California Rail Network
- City Boundary
- County Boundary

MAP CREATED ON: 11/19/2020

Figure 1: Regional Location



The public benefits of the proposed Project accrue to motorists, pedestrians, rail passengers, and residents throughout the region. The private benefits can be seen in the reduction of fuel consumption, lower costs to freight rail transportation, and decreases in delays. Passenger and commuter rail reliability is essential for those residing and working in the region, especially those in rural communities, who need improved access to essential services and economic centers. The proposed Project is aligned with San Joaquin County goals to enhance existing rail infrastructure in order to improve the rail network efficiency and capacity, including safe, reliable transportation choices, while also improving the local economy through economic growth, job retention, and job creation.

### 2.1.1 Project Background

The railroad main lines comprising the Stockton Diamond are geographically oriented east-west (BNSF Stockton Subdivision) and north-south (UP Fresno Subdivision), as shown in Figure 2, and both railroads are segments of important trade routes between Northern California (including ports in Stockton and the San Francisco Bay Area), the central United States, and the Pacific Northwest. BNSF has operating rights on the UP main line that it exercises for certain trains, and UP has operating rights on the BNSF main line that it exercises for certain trains. Connection tracks between the BNSF and UP main lines at Stockton, in the northeast, southeast, and southwest quadrants of the diamond crossing, enable through trains of one railroad to use the other railroad's tracks. BNSF and UP trains also use these connection tracks to transfer railcars between BNSF and UP yards and terminals in the vicinity of the Stockton Diamond.

Trains operating on the BNSF and UP main lines at the Stockton Diamond consist of freight trains of BNSF and UP, ACE commuter passenger trains between Stockton and San Jose operated by SJRRC, and intercity Amtrak San Joaquins passenger trains between Oakland/Sacramento and Bakersfield operated by SJPA. Freight trains that operate through Stockton typically consist of various types, such as: intermodal trains that carry containerized freight or highway semi-trailers; bulk trains that consist of a single commodity such as grain moving between a single origin and destination; manifest trains that carry individual carloads of freight for many shippers and moving between multiple origins and destinations; and local freights and transfers that move freight cars between switching yards, or between yards and the docks or shipping and receiving facilities of railroad customers. Based on the 2018 California State Rail Plan<sup>1</sup>, between approximately 50 and 70 freight trains and between 12 and 20 passenger trains per day on average

**Figure 2: Stockton Diamond**



<sup>1</sup> California Department of Transportation, 2018 California State Rail Plan, Accessible at <https://dot.ca.gov/programs/rail-and-mass-transportation/california-state-rail-plan>.



currently travel through the Stockton Diamond footprint.

The proposed Project replaces the existing at-grade intersection of the BNSF Stockton Subdivision and UP Fresno Subdivision with a grade-separation structure that will elevate the UP main tracks above the BNSF main tracks, enabling through trains proceeding on the UP main tracks to advance through the intersection without conflict with through trains on the BNSF main tracks. The three existing connections between the two railroads will remain and function much as they did prior to completion of the Project, although their alignments will be modified to accommodate the development of the flyover structure and to reduce operating conflicts between trains on various routes within Stockton. No existing UP main tracks will remain in place across the BNSF main tracks after the Project is constructed. Traffic conflicts and train staging that currently occur, as trains wait on one railroad's main track for trains using the other railroad's main track to pass through the Stockton Diamond footprint, will be reduced once trains traveling on the UP main tracks begin using the grade-separation structure to cross above the BNSF main tracks. The at-grade crossing will be removed permanently, thereby removing the need for frequent maintenance and the resulting train delays created during shutdown of the crossing.

### 2.1.2 Project Setting

#### 2.1.2.1 *Regional Setting*

The proposed Project is located in the City of Stockton in San Joaquin County, California. San Joaquin County, located between the counties of Alameda and Contra Costa to the west and Sacramento to the north, encompasses approximately 1,448 square miles. Approximately 773,632 residents occupy San Joaquin County. The region's incorporated cities include Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy, the largest of which is Stockton, with a population of 318,522.<sup>2</sup>

According to the San Joaquin Council of Governments (SJCOC), rail is a critical link to the full-service transportation network available in San Joaquin County. The network is comprised of approximately 200 miles owned by Class I railroads BNSF and UP. The county also features approximately 50 miles of short-line railroads, including the Stockton Terminal and Eastern Railroad and the Central California Traction Company (CCT).

Transit is also important to the region and includes a system of bus rapid transit; intercity and interregional bus transit services; and ACE commuter rail service. There are currently 10 stops along the 86-mile ACE route between San Jose and Stockton. ACE trains pass through the Stockton Diamond between the current northern terminal station in Stockton (Robert J. Cabral Station) and the Lathrop/Manteca Station approximately 11 miles south. The ACE transit service uses Bombardier Bi-level coaches with MPI F40PH-3C and Siemens Charger locomotives, which operate on lines owned by UP.

San Joaquin County's road network is made up of more than 3,600 maintained miles. Major north-south highways include State Route 99 (SR 99) and Interstate 5 (I-5). SR 99 is considered the "Main Street" of the San Joaquin Valley and I-5 is a corridor of statewide and national significance. Each of these routes also carries truck traffic that is much higher than the state average for the highway system, and is imperative to goods movement. SR 120, SR 4, and SR 12 are major east-west highways, connecting SR 99 and I-5. SR 4, referred to as the Crosstown Freeway within Stockton, is located less than 2,000 feet north of the Stockton Diamond and continues westward

<sup>2</sup> Department of Finance E-1 Population Estimate: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates//E-1/>

to the city of Hercules and eastward into the Sierra Nevada Mountains. Other important highways in the region include Interstates 580 (I-580) and 205 (I-205), located in the southwest region of the county. Each of these highways facilitates goods movement throughout the region. I-205 and I-580 serve as the gateway connection between the San Joaquin Valley and the San Francisco Bay Area. Each of these highways has experienced increased travel movement greatly beyond the statewide average.

#### *2.1.2.2 Project Study Area and Construction Limits*

The northern limit of the proposed Project construction limits includes Weber Avenue, a major east-west arterial in downtown Stockton. Just north of Weber Avenue is the Robert J. Cabral Station. The southern Project construction limit is the UP Stockton Yard, located approximately at East Fourth Street. The eastern and western limits of the Project construction limits are generally South Pilgrim Street and South Grant Street, respectively. Figures 3-6 provide maps of the Project construction limits. The Project study area varies depending on the resource analyzed; however, the general study area extents are included in Figure 3.

The Stockton Diamond is generally located in the middle of the study area. Substantial freight movements between the Port of Stockton and points east, north, and south must pass through the Diamond. The existing at-grade nature of the Diamond provides an operational constraint that results in delays to the regional rail network where these two principal rail lines intersect.

At several locations, the existing north-to-south UP Fresno Subdivision tracks at and near the Diamond are raised above grade by about 3 feet, requiring any vehicular or pedestrian traffic to go up and over the hump to cross the tracks at roadway-rail grade crossings. Additionally, the Mormon Slough is crossed by existing road and railway tracks within the proposed Project study area in several locations.

The Diamond currently features wye connection tracks in three of the four Diamond quadrants, and a new wye for the northwest quadrant, referred to as the Stockton Wye, is planned for construction in 2021. As shown in Figure 2, the wye connection tracks create a triangular joining arrangement of three rail lines, where individual trains can be routed between the BNSF Stockton Subdivision and UP Fresno Subdivision. In the southeast quadrant, the wye track provides connection to and from the UP Stockton Yard located south of the Diamond and allows connectivity to the BNSF Mormon Yard located east of the Diamond.

In the southwest quadrant, a wye track connects the UP Fresno Subdivision and UP Stockton Yard with the BNSF Stockton Subdivision heading westbound. In the northeast quadrant, a wye track provides connection between the BNSF Stockton Subdivision and the UP Fresno Subdivision, which is used by Amtrak for the San Joaquins service between Sacramento, Stockton, and Bakersfield. Completion of the Stockton Wye project would provide a connection track in the northwest quadrant of the diamond, and would improve access between the UP Fresno Subdivision and the Port of Stockton to the west of the Diamond.



### STUDY AREA SECTIONS

- Train Station
- Major Streets/Highways
- Mormon Slough
- Future Stockton Wye Project
- UP Fresno Subdivision
- BNSF Stockton Subdivision
- Proposed Track
- Proposed Project Section
- Proposed Staging Area
- Project Construction Limits
- Park



0 0.25 0.5 Miles

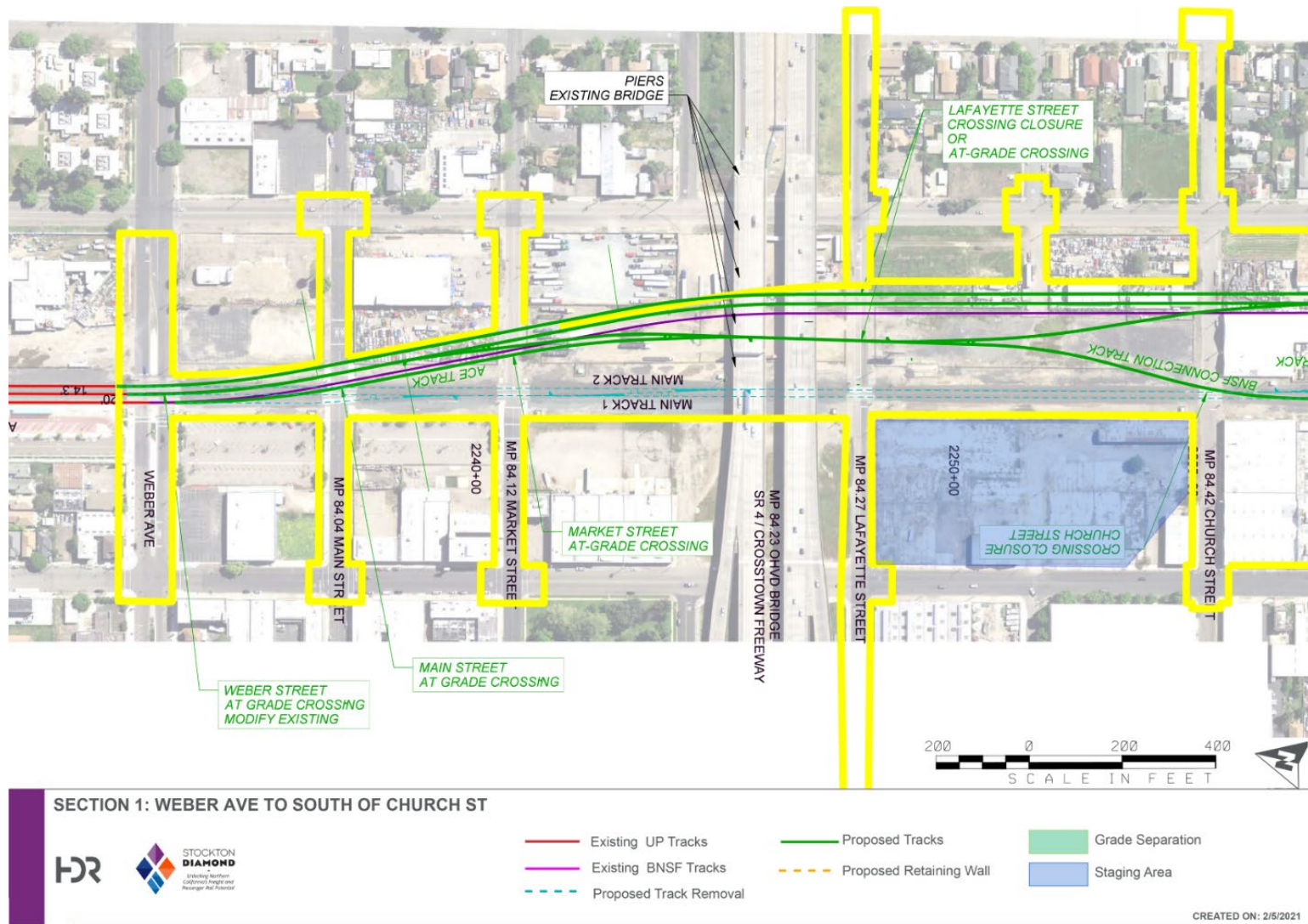
**DATA SOURCE:** City of Stockton, San Joaquin County GIS Data (2019) and USGS Aerial Imagery (2018), ESRI, NOAA



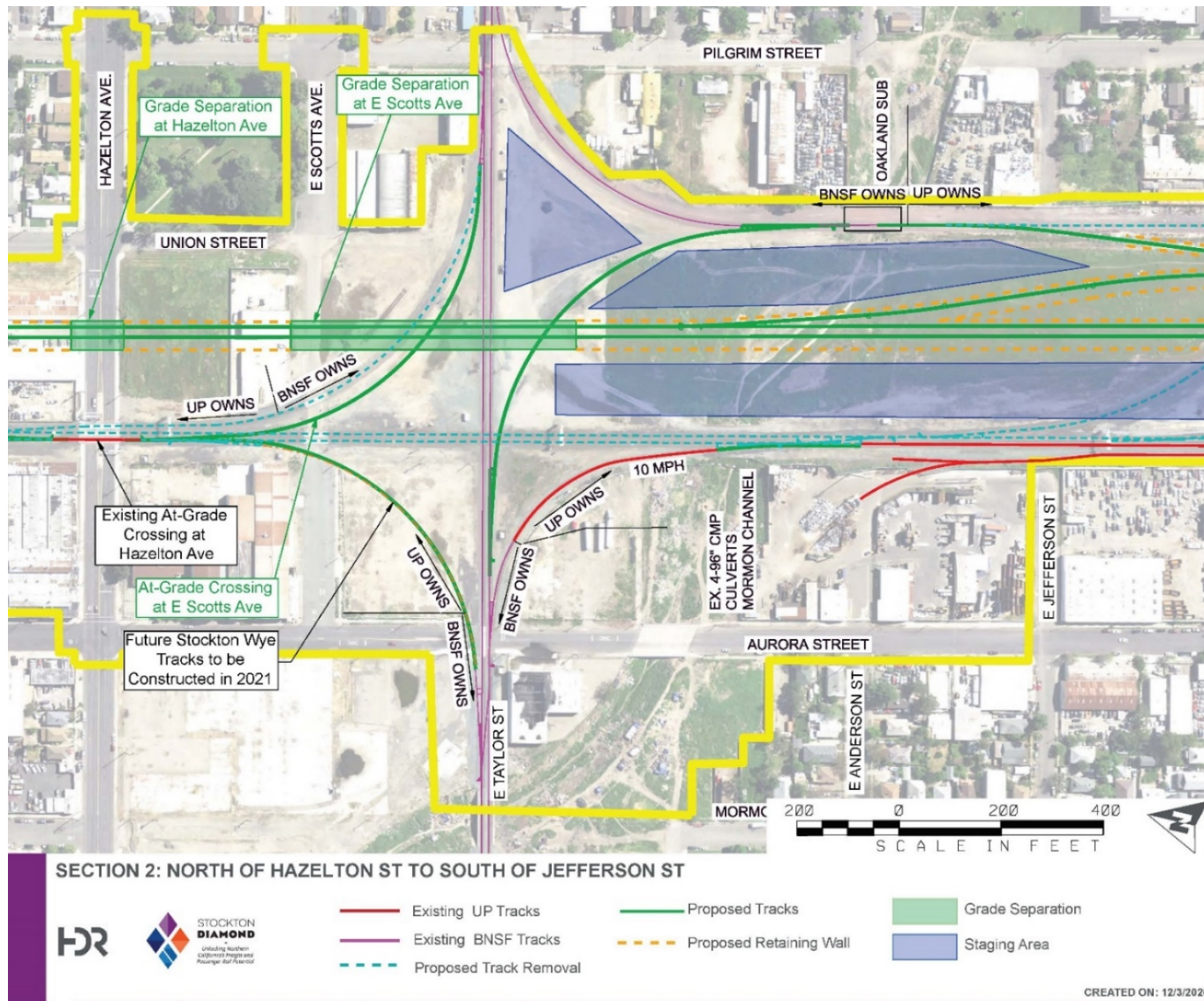
MAP CREATED ON: 2/4/2021

**Figure 3: Project Study Area Sections**



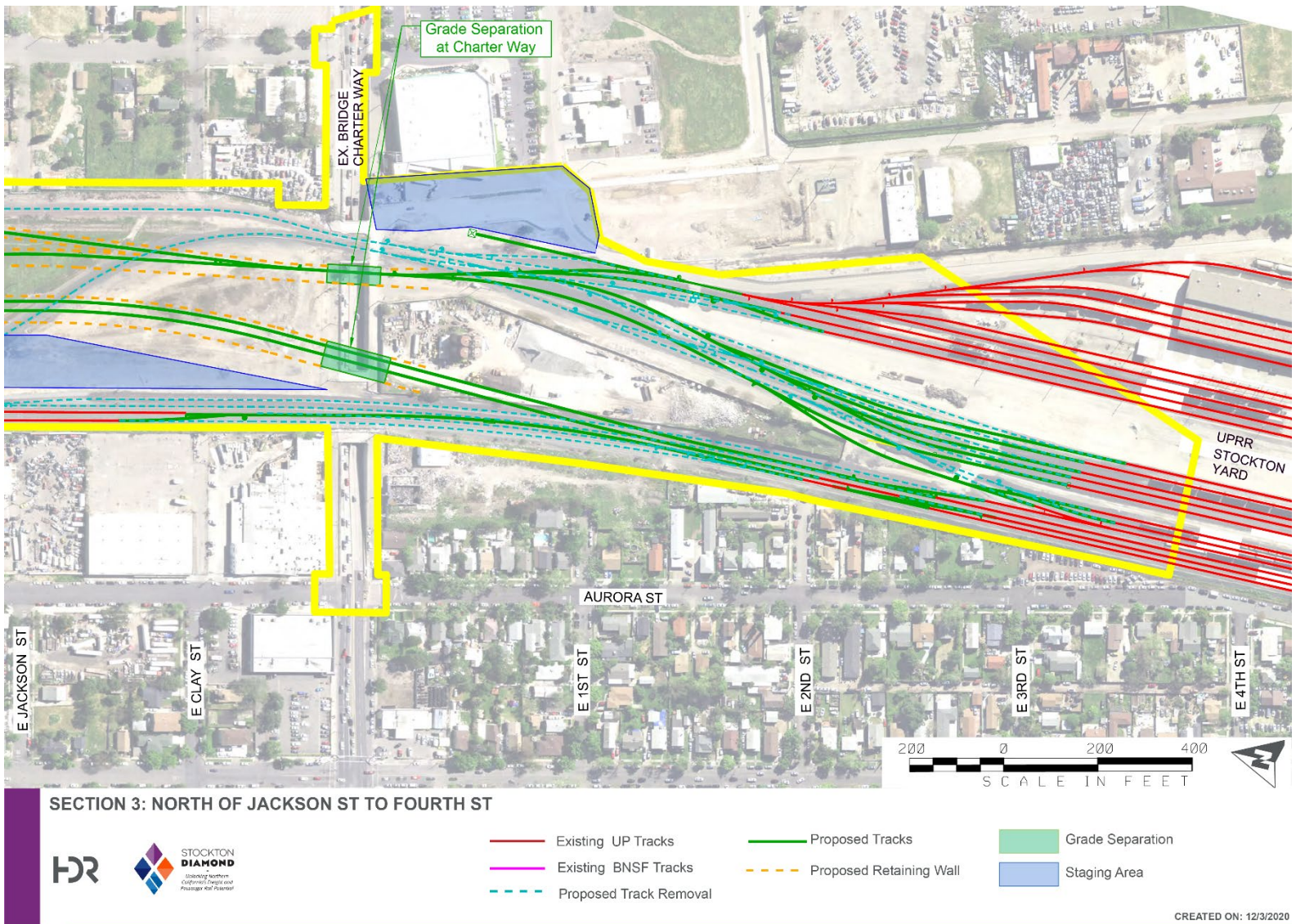


**Figure 4: Project Design Features and Study Area (East Weber Avenue to South of East Church Street)**



**Figure 5: Project Design Features and Study Area (North of East Hazelton Avenue to South of East Jefferson Street)**





**Figure 6: Project Design Features and Study Area (South of East Jefferson Street to UP Stockton Yard)**



## 2.2 Need for and Purpose of Proposed Project

The need for the improvements proposed with the Stockton Diamond Grade Separation Project and the resulting purpose of the proposed Project are discussed in the sections that follow.

### 2.2.1 Need for the Proposed Project

#### 2.2.1.1 Freight and Passenger Rail Activity at the Stockton Diamond

Several passenger and freight rail services converge at the Stockton Diamond, as noted above; consequently, there is a substantial amount of rail activity at this location. Publicly available FRA Highway-Rail Grade Crossing Inventory Reports were consulted to obtain a conceptual estimate of the typical number of freight trains per day operated through each roadway-rail grade crossing in the study area.<sup>3</sup> Available data for the UP Fresno Subdivision is for the year 2016; available data for the BNSF Stockton Subdivision is for the year 2019. Train count data for the UP Fresno Subdivision from the year 2016 was escalated to the year 2019 using a 2% compound annual growth rate, which is a factor acceptable to the FRA to account for freight growth for planning purposes.

According to the data, in 2019, an estimated average of 44 freight trains a day typically operated on the UP Fresno Subdivision north of the Diamond, 36 of which continued south through the Stockton Diamond and eight of which used the northeast connecting tracks to access the BNSF Stockton Subdivision, or vice versa. In addition, an estimated average of 20 freight trains a day operated on the BNSF Stockton Subdivision east of the Diamond, with 12 using the Stockton Diamond and eight using the northeast connecting tracks to access the UP Fresno Subdivision.<sup>4</sup> An additional four trains a day, on average, used the southwest connecting tracks between the BNSF Stockton Subdivision west of the Diamond and the UP Fresno Subdivision south of the Diamond. Figure 7 illustrates the relative freight rail activity in 2019 through and near the Stockton Diamond.

In addition to the freight trains, in 2019 SJRRC operated eight total daily (peak-period service) ACE commuter trains each weekday day between the Stockton Cabral Station and San Jose, through the Stockton Diamond on the UP Fresno Subdivision, all of which pass through the Stockton Diamond. In 2019, the SJJPA had four daily San Joaquins intercity trains (operated by Amtrak) between Bakersfield and Sacramento through the Stockton Diamond along the BNSF Stockton Subdivision and UP Fresno Subdivision (using the northeast connecting tracks), as well as 10 daily San Joaquins trains between Bakersfield and Oakland through Stockton Diamond on the BNSF Stockton Subdivision both east and west of the Diamond. These passenger train volumes are also illustrated in Figure 7.

In the 2045 horizon year, with the conceptual 2019 freight train activity escalated using the same 2% compounded annual growth rate noted above, there could potentially be as many as 52 daily freight trains passing through the Stockton Diamond on the UP Fresno Subdivision and 17 daily freight trains passing through the Diamond on the BNSF Stockton Subdivision. An additional 18 daily trains could potentially utilize the connecting tracks in the Project study area.<sup>5</sup>

<sup>3</sup> U.S. Department of Transportation, FRA – Safety Map, accessed at <https://fragis.fra.dot.gov/gisfrasafety/>.

<sup>4</sup> Actual typical number of freight trains is subject to future analysis and railroad coordination.

<sup>5</sup> Actual typical number of freight trains for all planning horizons is subject to future analysis and railroad coordination.

[illegible]

<sup>6</sup> SJRRRC / SJPPA Valley Rail Sacramento Extension Final Environmental Impact Report, accessed online at <https://acerail.com/deir-chapters-and-appendices/>.

### 2.2.1.2 Railroad and Roadway Delays in the Study Area

Roadway-rail grade crossing occupancy time for a given train (i.e., gate down time for vehicles waiting for a train to pass) is based on train length, train speed, the width of the roadway, as well as railroad industry best practices for minimum activation time, prior warning time, and the time it takes for the grade crossing warning devices to recover after the passing of a train. Each of these factors affecting gate down time and resulting roadway delays is discussed below.

**Average Train Length:** A 2019 report from the United States Government Accountability Office (GAO) titled *Rail Safety: Freight Trains Are Getting Longer, and Additional Information Is Needed to Assess Their Impact* listed average freight train lengths provided by four different U.S. Class I railroads.<sup>7</sup> To support analysis developed for this study, the average of these four values was taken as a baseline for a typical freight train length in the years 2016-2019. A growth in average freight train length from 6,500 feet (with three locomotives) in the years 2016-2019 to an average freight train length of 7,500 feet (with four locomotives) in the year 2045 is assumed, based on observation of rail industry trends.<sup>8</sup> Passenger train length of 700 feet (one locomotive and seven passenger cars) in the 2019 baseline year growing to a length of 1,000 feet (two locomotives and ten passenger cars) in the year 2045 is assumed.

**Average Train Speed:** Based on information in the FRA Highway-Rail Grade Crossing Inventory Reports, trains can operate generally at speeds up to 40 mph on the UP Fresno Subdivision, up to 60 mph on BNSF Stockton Subdivision, and up to 15 mph on the connecting tracks within the vicinity of the Stockton Diamond, although typical speeds are lower.<sup>9</sup> As observed using Google Earth Pro imagery, the Stockton Diamond itself has a posted speed limit of 30 mph for all approaching trains until the entire train is clear of the Diamond. Based on observation of train operations, train speeds are often reduced substantially as a result of rail congestion within the Stockton Diamond footprint and on the immediate rail network.

**Roadway Width:** The roadway widths are generally determined by the number of travel lanes multiplied by an average width of 12 feet per lane. Most roadways that cross either the UP Fresno Subdivision or the BNSF Stockton Subdivision near the Stockton Diamond are two-lane roads (therefore, 24-foot crossing length); however, East Hazelton Avenue, South San Joaquin Street, South California Street, and South Airport Way each currently have four travel lanes (therefore, 48-foot crossing length). Note that with a separate City of Stockton project, South California Street will be reduced to three lanes with Class IV Separated Bikeways.

**Warning Device Activation Time:** The general assumptions for warning device activation include 20-second prior warning time, 5-second gate down time before train enters crossing, 5-second reaction delay, and 12-second gate rise time. Note that the time for the train to pass through the crossing is based on the other factors and not included in these times.

Considering average train lengths and train speeds, roadway widths, and warning device activation time, the 2019 total occupancy (or gate down time) per freight train crossing typically varies from a minimum of 3 minutes and 11 seconds to a maximum of over 8 minutes. The shorter passenger

<sup>7</sup> U.S. Governmental Accountability Office, Report to Congressional Requesters, Rail Safety, GAO 19-443, May 2019, accessed online at <https://www.gao.gov/assets/700/699396.pdf>

<sup>8</sup> Actual average freight train lengths for existing and potential future freight trains are subject to future analysis and railroad coordination.

<sup>9</sup> Actual train speeds are subject to future study and railroad coordination.

trains generally have gate down times of between 55 seconds and 1.5 minutes. By 2045, these times *per freight train* are expected to increase between 23 seconds and 1 minute each.

The total daily occupancy of any given roadway-rail grade crossing over the course of a day, based on the 2019 combined train activity ranges from approximately 22 minutes for a small subset of the trains using the BNSF Fresno Subdivision and southwest connecting track to nearly two hours for the majority of the trains (36 a day) using the UP Fresno Subdivision and passing through the Stockton Diamond. By the year 2045, the total daily occupancy of the UP Fresno roadway-rail grade crossings would be as high as three hours a day for the estimated 52 trains that would continue through the Stockton Diamond.

Due to the close proximity to downtown Stockton, the roadways that cross the UP and BNSF tracks also experience a great deal of activity, with traffic volumes ranging from under 1,000 vehicles a day at two-lane crossings such as East Church Street, East Scotts Avenue, and South Pilgrim Street, to nearly 5,000 vehicles a day at East Hazelton Avenue and over 16,000 vehicles a day at South Airport Way, both of which are four-lane roadways. Figure 7 illustrates the vehicular traffic volumes at each roadway-rail grade crossing in the study area. The current and future gate down times result in delays to these vehicles that need to cross the tracks.

#### 2.2.1.3 Passenger Train Reliability

The 2018 California State Rail Plan<sup>10</sup> focuses on a sustainable and connected megaregional rail network, with competitive rail travel times and a high degree of reliability. Therefore, passenger rail services not only need to be integrated and part of a larger network, but the service and transfer opportunities should be reliable.

The large number of freight trains that operate along the UP Fresno and BNSF Stockton Subdivisions impacts the passenger rail operations through the Stockton Diamond and affects passengers' ability to reach destinations on time or to make critical connections to other transit services. Passenger rail users expect a reliable service; they plan for the scheduled arrival and departure of their train and delayed trains can result in being late for work, missed transfer connections, and/or choosing to drive as an alternative.

Train movements through the Diamond are controlled by BNSF, who has priority at the Diamond crossing. As a result, when BNSF allows one of its trains to pass the Diamond, ACE, San Joaquins, and UP trains experience delays when they need to slow down or stop and wait for the BNSF trains to pass. The delays are also caused by maintenance of the Diamond. The at-grade crossing is significantly impacted by continuous heavy freight movements, and must be maintained on a regular basis. Train movements through the Diamond must be shut down during maintenance, creating delays and reducing on-time performance and reliability for both freight and passenger trains.

The delays caused as a result of the at-grade Stockton Diamond adversely affect passenger confidence in rail travel. In addition, delayed passenger and freight trains can affect economic vitality if employees and goods do not arrive at their destinations on time, could affect air quality with increased emissions, and would not meet the goals of the California State Rail Plan.

<sup>10</sup> AECOM, *California State Rail Plan*, September 2018, accessed online at <https://dot.ca.gov/programs/rail-and-mass-transportation/california-state-rail-plan>.

#### *2.2.1.4 Safety at Roadway-Rail Grade Crossings*

As a result of the number of trains that pass through the study area, crossing local and arterial roadways in residential neighborhoods, safety is a major concern among local residents. Over the past 5 years, there have been 6 trespasser fatalities and an additional 5 injuries within a 1-mile radius of the project<sup>11</sup>. Immediately near the Stockton Diamond, there have been 6 bicycle or pedestrian injuries at at-grade crossings, one of which resulted in a fatality.

#### *2.2.1.5 Need for the Proposed Project*

Based on the existing and estimated future rail activity through the Stockton Diamond, the amount of time roadway-rail grade crossings are occupied to allow the passing of trains, the resulting vehicular traffic delays, and safety concerns at roadway-rail grade crossings, improvements to enhance railroad operating efficiency are critical for the efficient movement of people and goods and to help the economic conditions in Stockton and the region. The Stockton Diamond Grade Separation is needed because:

- High levels of freight and passenger rail activity cause train congestion. Stockton Diamond is the busiest, most congested at-grade railway junction in California;
- Congestion and freight maintenance activities cause delays and poor reliability. The current, at-grade configuration of the Stockton Diamond results in significant delays and poor reliability for BNSF and UP freight trains and for ACE and Amtrak San Joaquins passenger trains. Local road traffic also experiences delays and poor reliability because of the amount of time the road crossings are occupied by trains.
- Multiple roadway-rail grade crossings and the BNSF-UP main line track at-grade crossing create conflict points, resulting in increased safety risks.

#### 2.2.2 Purpose of the Proposed Project

To address the needs identified herein, the purpose of the Stockton Diamond Grade Separation Project is to:

- Provide operational benefits that enhance existing passenger rail service and new service planned in the Valley Rail program;
- Provide for an uninterrupted flow of rail through the crossing, which will improve freight movement; and
- Reduce delays for pedestrians and motorists at key local roadway-rail grade crossings.

#### 2.2.3 Project Goals and Objectives

The Project Goals and Objectives are to:

- Reduce passenger and freight rail delays and associated congestion;
- Maintain key community connections;
- Improve multimodal access;
- Provide local and regional environmental and economic benefits; and
- Address safety by closure and enhancements at key roadway-rail grade crossings.

<sup>11</sup> Federal Railroad Administration (FRA), Trespassers Casualty Map, accessed online at <https://fragis.fra.dot.gov/Trespassers/>.

With the successful execution of the Project goals and objectives, it is anticipated that the proposed Project would result in the following benefits:

1. ***Stimulate Mobility:*** Improve regional passenger and freight rail efficiency and travel reliability by reducing conflicting train movements.
2. ***Enhance Safety:*** Improve Stockton residents' access, safety, and mobility across rail lines through enhancements or closures at roadway-rail grade crossings.
3. ***Economic Vitality:*** Reducing delays will result in increased throughput, goods movement, and train velocity. This decreases fuel consumption and leads to cost savings.
4. ***Inspire Connections:*** Support faster, more reliable passenger rail service linking residents to family, jobs, and recreational destinations throughout Northern California.
5. ***Improve Sustainability:*** Improve air quality through reduction of greenhouse gas from trains and vehicles that idle due to congestion and delays.

## **2.3 Relationship to Other Plans in the Study Area**

This section identifies planned and current rail and roadway operations plans at the state and local level that are related to the proposed Project that have provided input into the development and evaluation of potential Project alternatives. It is important to note that all of these plans, studies, and projects are separate efforts apart from the proposed Project and that the improvements proposed as part of these efforts are not elements of the Stockton Diamond Grade Separation Project.

### **2.3.1 San Joaquin Regional Rail Commission Plans**

The SJRRC *ACEforward* is a phased improvement plan proposed by the SJRRC to increase service reliability and frequency (two additional roundtrips in near-term and four additional roundtrips in long-term), enhance passenger facilities, reduce travel times along the existing ACE service corridor from San Jose to Stockton and extend ACE service to Manteca, Modesto, Ceres, Turlock and Merced. While the Draft EIR for *ACEforward* was issued in 2017, the SJRRC rescinded the document to focus on the funded extensions to Sacramento and Ceres / Merced as part of the Valley Rail program.

In addition to the relevance of SJRRC's *ACEforward* to the proposed Project because of its proposed improvements in Stockton and use of the UP Fresno line and Stockton Diamond, Valley Rail implements two new daily round-trips for the Amtrak San Joaquins service to better connect San Joaquin Valley travelers with the Sacramento Area, and an extension of ACE between Sacramento and Ceres/Merced (see Figure 8). In addition, Valley Rail includes plans for vehicle



air quality improvements. SJRRC issued a Final EIR for the ACE Extension Lathrop to Ceres/Merced (ACE Extension) project in July 2018. SJRRC issued a Final EIR for the Valley Rail Sacramento Extension project in October 2020.

In addition to the Valley Rail program, SJRRC and the Tri-Valley San Joaquin Valley Regional Rail Authority (TVSJVRRRA) have established a *Universal Infrastructure* vision for the Altamont Corridor between Stockton and the San Francisco Bay Area. The Investment in “Universal Infrastructure” throughout the San Joaquin Valley and the San Francisco Bay Area would enable one-seat rides via the Altamont Corridor to San Jose, the Peninsula via a new Dumbarton Bridge, Oakland, and San Francisco via a new Transbay Crossing. Universal infrastructure would be compatible with high-speed rail and would enable a one-seat ride from the California High-Speed Rail initial operating segment at Merced. The improvements that comprise the Altamont Corridor Vision can be phased as follows:

#### Near-Term / Phase 1 Priority Improvements

- Additional ACE round trips between the San Joaquin Valley and San Jose via Altamont Pass and weekend service (six daily round trips weekdays)
- New Valley Link service implementation: Dublin/Pleasanton to North Lathrop (25 daily round trips)
- Altamont Pass Tunnel/Alignment Improvements

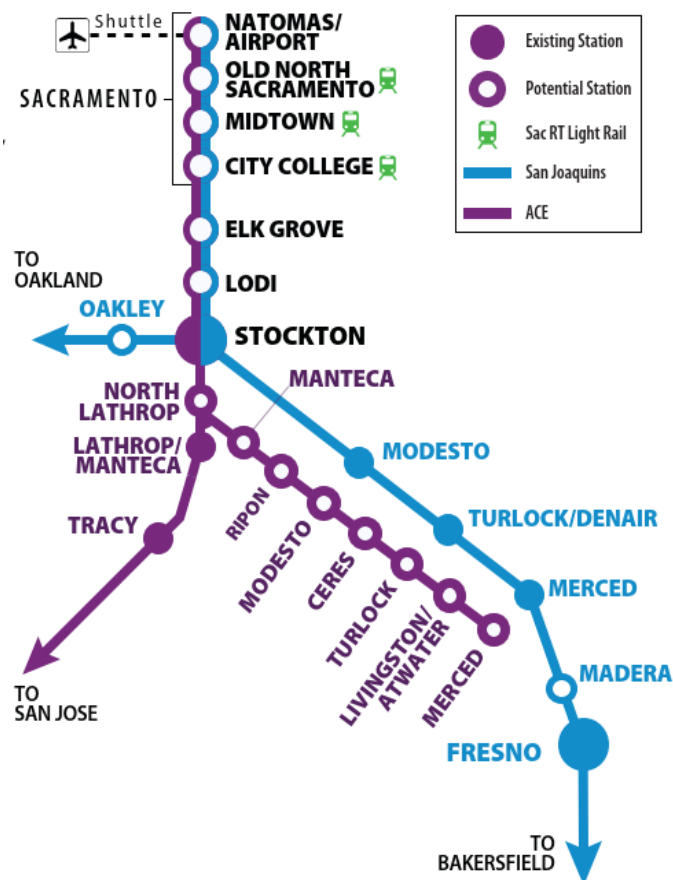
#### Mid-Term Improvements

- Four additional ACE round trips between the San Joaquin Valley and San Jose via Altamont Pass (10 daily round trips weekdays)
- Newark to Alviso improvements
- Valley Link extended from North Lathrop to Stockton (30 daily round trips)

#### Longer-Term / Vision Improvements

- 15-minute to 30-minute frequency during peak periods
- Dedicated Track – “Universal Corridor”

Figure 8: Valley Rail Program



- One seat ride San Joaquin Valley – San Jose/Oakland/San Francisco/Peninsula

The proposed Project is an important component of the SJRRC's *ACEforward* and subsequent Valley Rail programs to address existing travel delays and unreliability and as an initial step in the implementation of the longer-term plans for an integrated and efficient ACE passenger rail network. As a component of this program, the proposed Project is covered under a 2014 Memorandum of Understanding between the SJRRC and CHSRA that created a partnership between the agencies to advance the program, and subsequent NEPA assignment by the FRA as noted herein.

### 2.3.2 California State Rail Plan

The objectives of the proposed Project align with the vision of the 2018 California State Rail Plan. The 2018 Rail Plan is a strategic plan with operating and capital investment strategies identified that would lead to a coordinated, statewide travel system. The 2040 Vision laid out in the 2018 Rail Plan includes several key passenger rail elements, as described below:

- Statewide System – Passenger rail service will tie together urban, suburban, and rural areas of the state;
- Integrated Services – Multimodal hubs will connect all levels of service with a common fare system, which allows trips to be made on a single ticket;
- Coordinated Schedules – Services will be coordinated in a "Pulsed" schedule across the network to reduce wait times and allow direct transfers;
- Frequent Service – Service frequency will make rail a timely option for travelers, meeting trip demands throughout the day; and
- Customer Focus – Enhanced ticketing, scheduling, and passenger information will be supported by coordinated services.

The proposed Project advances many of these goals by eliminating the Interlock at the Stockton Diamond and allowing for uninterrupted flow of passenger rail trains through the Diamond. The proposed Project would result in improved reliability of travel time and transfers and passenger confidence.

### 2.3.3 City of Stockton Plans

The City of Stockton's *Bicycle Master Plan* is part of the overall General Plan 2035 update. The City is currently made up of 100 miles of off-street bicycle trails and paths and on-street bicycle facilities. The vision of the Stockton *Bicycle Master Plan* is to:

*"Implement a vibrant, safe, and supportive bicycle network that connects residents in every neighborhood with desirable places to ride for any trip purpose. The Bicycle Master Plan should be the catalyst for starting a cultural shift toward cycling in Stockton by effectively marketing cycling as a healthy, active transportation option and through funding supportive educational programs to reach people of all ages and abilities."*

To implement the vision, the *Bicycle Master Plan* proposes a network of facilities that creates a citywide "Backbone Network" that only consists of low-stress ratings (LTS 1 or LTS 2). New corridor and intersection tools are incorporated into the Backbone network to create low-stress facilities.

The City of Stockton also received grant funding to develop a *Greater Downtown Active Transportation Plan* in 2017. The Plan was developed in order to address the City's need for transportation options other than driving as downtown continues to grow. The *Greater Downtown Active Transportation Plan* builds on the bicycle network in the 2017 Bicycle Network Master Plan, described above, and will identify and recommend future bicycle and pedestrian facility projects in the City's Greater Downtown. The Plan is intended to enhance safety for pedestrians, cyclists, and transit riders with improved access to transit, schools, work, and regional trails; create connections to and from other areas in the City; and support the revitalization of Stockton's core.

As per City of Stockton's Bicycle Master Plan (2017) and the General Plan 2040 (2018) several bicycle facilities are proposed in the project study area. Class IV separated bikeways are proposed on Charter Way and Weber Avenue within the study area and on Airport Way and California Street near the study area. Class II bicycle lanes are proposed on Hazelton Avenue within the study area and on Main and Market Streets just east of the study area.

The Stockton Diamond Grade Separation Project considers these plans for improved bicycle facilities, in particular along Hazelton Avenue which would be grade-separated from the UP Fresno Subdivision tracks as part of the proposed Project. The proposed Project's Hazelton Avenue underpass would accommodate the bicycle lanes planned by the City of Stockton.

#### 2.3.4 Other Local and Regional Plans

##### 2.3.4.1 *San Joaquin Area Flood Control Agency Strategic Plan*

The San Joaquin Area Flood Control Agency (SJAFCA) was formed for the purpose of addressing flood protection, with a mission to manage the region's flood risk. SJAFCA developed a Strategic Plan in 2019 to present its mission statement, goals, objectives, and priority actions.<sup>12</sup> The plan also provides policy guidelines to inform the agency's approach, decisions, investments, and actions as flood risk management programs develop within the region (SJAFCA 2019).

As part of meeting the expectations of the strategic plan, the SJAFCA identified the need to improve the Mormon Channel Bypass. In order to divert 1,200 cubic feet per second (cfs) from the upstream end of the Stockton Diverting Canal to the Mormon Channel, the agency intends to improve the channel and construct a control structure. It is expected that the project would result in a medium reduction of stage at Stockton Diverting Canal and Calaveras River:

- Up to 0.5 foot for a 200-year event, and
- Up to 1.2 feet at the Stockton Diverting Canal for a 200-year event with climate change assumptions.

With project implementation, there are opportunities to provide multi-benefits to recreation/open space. However, no benefits have been identified to ecosystem functions. A feasibility study is expected to be initiated in 2025 and be completed by the end of 2025. The initial scope of the feasibility study includes continuing the conceptual work to a feasibility level to determine the overall system impacts and extend of protection afforded. Construction of the project would not occur in the near-term. It is expected that it would be more than 5 years until the construction is initiated.

<sup>12</sup> San Joaquin Area Flood Control Agency (SJAFCA), *Draft Strategic Plan*, 2019, accessed online at: <https://sjafca.com/pdf/StrategicPlan.pdf>, November 2020.

#### *2.3.4.2 San Joaquin Council of Governments Congested Corridors Plan*

The Congested Corridors Plan was developed by SJCOG, Caltrans and other local agencies and was finalized in March 2020. The Congested Corridors Plan focuses on the highly congested corridors along I-205, I-5, SR 120 and SR 99, and was established to improve local, regional, and interregional circulation in San Joaquin County to serve both existing and projected (Year 2040) travel between California's Central Valley and San Francisco Bay Area. The Plan accounts for all modes of travel, including cars, trucks, transit, rail, pedestrians and bicyclists. The goal of the Congested Corridor Plan is to, "reduce traffic congestion and increase travel choices through a balanced set of transportation, environmental, and community access improvements." The proposed Project is consistent with the Congested Corridors Plan as it would improve circulation, congestion and delay at a highly trafficked location in San Joaquin County (the Stockton Diamond), and improve regional and interregional transportation efficiency.

#### *2.3.4.3 San Joaquin Council of Governments Regional Transportation Plan and Sustainable Communities Strategy*

SJCOG and the Metropolitan Planning Organization for San Joaquin County, issued its *Regional Transportation Plan /Sustainable Communities Strategy* (RTP/SCS) in 2018. The RTP/SCS is a transportation investment strategy through 2042, which identifies transportation needs to keep pace with anticipated growth and development. The following are the overarching goals that guide the Plan:

- Enhance the Environment for Existing and Future Generations and Conserve Energy
- Maximize Mobility and Accessibility
- Increase Safety and Security
- Preserve the Efficiency of the Existing Transportation System
- Support Economic Vitality
- Promote Interagency Coordination and Public Participation for Transportation Decision-Making and Planning Efforts
- Maximize Cost-Effectiveness
- Improve the Quality of Life for Residents

#### *2.3.4.4 SJCOG Regional Congestion Management Program*

The Regional Congestion Management Program is a mechanism to fulfill the SJCOG's requirements as a metropolitan area exceeding a population size of 200,000 people, under the Federal Congestion Management Process (CMP). Federal regulation defines the CMP as a systematic process that provides for safe and effective integrated management and operation of the multimodal transportation system. The process includes the following elements:

- Development of congestion management objectives;
- Establishment of measures of multimodal transportation system performance;
- Collection of data and system performance monitoring to define the extent and duration of congestion and determine the causes of congestion;
- Identification of congestion management strategies;
- Implementation activities, including identification of an implementation schedule and possible funding sources for each strategy; and
- Evaluation of the effectiveness of implemented strategies.

#### *2.3.4.5 SJCOG Regional Transit Systems Plan*

The *SJCOG Regional Transit Systems Plan* includes strategies to reduce congestion through a variety of mechanisms including, increased density, multimodal and commercial joint developments, transit expansions, and support for alternative modes of travel throughout San Joaquin County. The following are the goals of the Plan:

- Implement effective ridership programs countywide such as continuing work toward the implementation of San Joaquin County 511; incorporation of San Joaquin County transit routes into Google transit; and the addition of global positioning units on buses to enable real time transit information to be collected.
- Develop a transit system which addresses, to the greatest extent possible, the needs for air quality and congestion management.
- Provide a transit system serving county residents which is efficient and cost-effective.
- Provide an emphasis on the multimodal nature and intermodal opportunities in San Joaquin County.
- Explore the opportunities for extending services into additional travel markets.
- Provide a mechanism whereby service is responsive to local needs to enhance the opportunities for all county riders.

#### *2.3.4.6 San Joaquin County Coordinated Transportation Plan*

The *San Joaquin County Coordinated Transportation Plan* (SJCCTP) is a locally developed coordinated human service transportation plan, which identifies the transportation needs of individuals with disabilities, older adults, and people with low incomes. The SJCCTP provides strategies for local needs and prioritizes transportation services for funding and implementation. The SJCCTP was prepared by a work group comprised of representatives from various stakeholder groups from social service agencies, public agencies, and local jurisdictions.

#### *2.3.4.7 San Joaquin Valley Regional Blueprint*

Through executive orders issued by two presidents, the Federal Interagency Task Force was created to help coordinate federal efforts within the San Joaquin Valley region. The San Joaquin Valley Regional Blueprint provides an opportunity for San Joaquin Valley residents, businesses, government agencies, and organizations to collectively plan for the future of transportation and land use in the San Joaquin Valley in the midst of rapid population growth.

## **2.4 Notice of Preparation**

On August 19, 2020, SJRRC, CEQA Lead Agency, in cooperation with the CHSRA, NEPA Lead Agency under assignment by the FRA, officially launched the environmental process for the proposed Stockton Diamond Grade Separation Project with a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) / Environmental Assessment (EA). The NOP was posted at the State Clearinghouse (SCH#2020080321) and circulated to public agencies and other interested parties in compliance with Section 15082(a) of the CEQA Guidelines and §771.111 of the Federal Highway Administration (FHWA) NEPA Guidelines. The NOP notified the public of the EIR/EA being prepared along with public scoping meeting information and how to provide comments on the project during the formal 45-day public comment period from August 19 to October 3, 2020.

### **3. CONSULTATION AND PUBLIC OUTREACH**

A letter regarding the proposed Project was sent to parties potentially interested in historic architectural resources on November 2, 2020. The recipients include such interested parties as local government planning departments, and/or historic preservation programs, historical societies, and museums, in compliance with consultation requirements of NHPA and its implementing regulations in 36 CFR 800. The letters were sent to: San Joaquin County Historical Society and Museum; City of Stockton Cultural Heritage Board; Haggin Museum; and the San Joaquin Genealogical Society. Follow-up communications were conducted on January 14, 2021. No responses were received. A copy of the correspondence is provided in Appendix B.



## 4. DESCRIPTION OF HISTORIC PROPERTIES, APPLICATION OF CRITERIA OF ADVERSE EFFECT, AND CONDITIONS PROPOSED

### 4.1 Methodology

This section assesses the effects of the proposed Project on the built historic properties within the APE. The assessment below identifies the effects as defined in 36 CFR 800.5(a)(2).

#### 4.1.1 Criteria of Adverse Effect

The Criteria of Adverse Effect (36 CFR 800.5) were applied to the project actions that have the potential to affect historic properties within the APE. An “adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.”<sup>13</sup>

Application of the criteria of adverse effect is an assessment of an undertaking’s changes to the character or use of a historic property and of how the undertaking will affect those features of a historic property that contribute to its eligibility for listing in the NRHP. Effects can be direct, indirect, and cumulative. Direct effects include such actions as physical destruction or damage, as well as those that may not physically impact the historic property but introduce visual or audible impacts that alter its character-defining features [36 CFR 800.5(a)(1)]. Indirect adverse effects include those that are later in time or farther removed in distance but are still reasonably foreseeable.

Table 2 lists examples of adverse effects, as provided in 36 CFR 800.5(a)(2). Of the seven typical effects, 36 CFR 800.5(a)(2)(vi) and (vii) are not applicable to this Project because this project would not result in the neglect of a historic property (vi); or in the transfer, lease, or sale of property out of federal ownership or control (vii).

**Table 2: Adverse Effects in 36 CFR 800.5(a)(2)**

ADVERSE EFFECTS ON HISTORIC PROPERTIES DESCRIBED IN 36 CFR 800.5 INCLUDE, BUT ARE NOT LIMITED TO:	
(i)	Physical destruction of or damage to all or part of the property;
(ii)	Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary’s standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
(iii)	Removal of the property from its historic location;
(iv)	Change of the character of the property’s use or of physical features within the property’s setting that contributes to its historic significance;
(v)	Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features;
(vi)	Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

<sup>13</sup> 36 CFR 800.5, “Assessment of adverse effects,” incorporating amendments effective August 5, 2004.

**ADVERSE EFFECTS ON HISTORIC PROPERTIES DESCRIBED IN 36 CFR 800.5 INCLUDE, BUT ARE NOT LIMITED TO:**

- |       |                                                                                                                                                                                                                                     |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (vii) | Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance. <sup>a</sup> |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

<sup>a</sup> 36 CFR 800.5, “Assessment of adverse effects,” incorporating amendments effective August 5, 2004.

The assessment of adverse effects to historic properties conducted for the Stockton Diamon Grade Separation Project included review and incorporation of findings from the assessments of visual, noise, and vibration impacts as reported in the noise and vibration study conducted for this proposed Project. The adverse effects analysis for historic properties also took into account the FTA guidance manual regarding assessment of train noise and vibration effects.<sup>14</sup>

Construction and operational noise have the potential to cause adverse effects *only* for historic properties that have an inherent quiet quality that is part of their historic character and significance (e.g., churches, parks, or National Historic Landmarks with significant outdoor use). None of the historic properties addressed in this report is considered to have an inherent quiet quality. All of the historic properties are commercial and/or residential in nature and were constructed in an urban area adjacent to the nineteenth-century former Southern Pacific Railroad (now UP) corridor. Further, construction-period noise is considered temporary and as such is not considered an adverse effect to historic properties. Therefore, the proposed Project would result in no adverse effects on any historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]). No further analysis is provided with respect to these types of adverse effects for the historic properties in the following section.

According to the FTA guidance manual, operational ground-borne vibration primarily causes human annoyance or interference with use of equipment sensitive to vibration. Damage to fragile historic buildings from vibration resulting from train operation is “unlikely except when the track is located very close to the structure.”<sup>15</sup> All historic buildings analyzed herein are located a considerable distance (more than 165 feet) away from all tracks. Therefore, no further analysis is provided with respect to operational ground-borne vibration effects for the historic properties.

It is also rare for construction vibration to cause physical damage to buildings or structures, except in the case of fragile historic properties in close proximity to construction sources causing high levels of ground-borne vibration. Table 3 and Table 4 provide comparative vibration levels for construction equipment and potential damage to various types of buildings. Table 3 provides generalized information for “various types of construction equipment [that were] measured under a wide variety of construction activities” with an average of source levels reported. The FTA guidance goes on to state that although there is one vibration level shown “for each piece of equipment, there is considerable variation in reported ground vibration levels from construction activities. The data . . . provides a reasonable estimate for a wide range of soil conditions.”<sup>16</sup>

<sup>14</sup> Cross-Spectrum Acoustics, Inc, *Technical Memorandum, Noise and Vibration*, prepared for Stockton Diamond Grade Separation Project, November 9, 2020; Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, FTA Report No. 0123 (Washington, DC: US Department of Transportation, FTA, Office of Planning and Environment, September 2018)

<sup>15</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 126.

<sup>16</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 184.

**Table 3: Vibration Source Levels for Construction Equipment**

EQUIPMENT		PPV* AT 25 FEET (IN/SEC)	APPROXIMATE LV† AT 25 FEET
Pile driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile driver (vibratory)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory roller		0.210	94
Hoe ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

**Table 4: Construction Vibration Damage Criteria**

BUILDING CATEGORY	PPV (IN/SEC)	APPROXIMATE LV†
I. Reinforced-concrete, steel or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Nonengineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration, 2018

\* PPV in/sec = peak signal value of an oscillating vibration velocity waveform, expressed in inches per second.

† LV = RMS velocity in decibels (VdB) re 1 in/sec.

in/sec = inch(es) per second RMS = root-mean-square

PPV = peak particle velocity VdB = vibration velocity decibels

Comparing the typical source vibration levels shown in Table 3 with the construction vibration damage criteria in Table 4 demonstrates that the only typical construction methods that would exceed the damage criteria threshold for all building categories are impact pile driving and upper-range vibratory pile driving at a distance of 25 feet. All other typical equipment listed in Table 3 would produce, at a distance of 25 feet, vibration at levels below the damage criteria thresholds for all building categories, with a few exceptions—vibratory rollers and material dropped from a clam shovel (slurry wall) could exceed Category III and IV criteria, and the typical range of a vibratory pile driver at 25 feet could exceed Category IV criteria. Otherwise, most construction

methods, even at 25 feet, would not exceed the damage criteria for even the most sensitive or fragile historic building.

The noise and vibration analysis prepared for this proposed Project concludes that impacts caused from project construction vibration may exceed the FTA recommended vibration thresholds for historic buildings and structures. This could occur through the use of impact pile driving within 75 feet of a fragile historic structure (Category IV) and/or other heavy construction, such as compactor, bulldozer, and vibratory roller, within 25 feet of a nonengineered timber or masonry historic structure (Category III). The built environment historic properties in the APE are all Category III or higher; there are no Category IV historic buildings or structures in the APE. Thus, while some project activities may exceed the FTA recommended vibration thresholds for historic buildings and structures, which could cause an adverse effect under 36 CFR 800.5(a)(2)(i), (ii) and (iii), impact pile driving for the project would occur 75 feet or more from historic properties, and the use of compactors, bulldozers, and vibratory rollers during construction would be at a distance of more than 25 feet from all historic buildings analyzed herein.<sup>17</sup> Therefore, no further analysis is provided with respect to construction ground-borne vibration effects for the historic properties in the APE.

## **4.2 Built Historic Properties**

The following section summarizes the finding of the evaluation efforts for the proposed Project. The APE includes 32 historic built resources that were evaluated for listing in the NRHP as part of this proposed Project. Five resources and one historic district are eligible for listing in the NRHP and are historic properties under Section 106. All properties were built for, and continued to be used for, commercial purposes. As summarized in Table 5, the Project would have no adverse effect on built historic properties within the APE.

The remainder of this section provides descriptions of each built historic property, including character-defining features, boundary, and summaries of their significance. The description is followed by an analysis of potential adverse effects that may be caused by construction and operation of the proposed Project. Representative photographs of the historic properties are also included for visual reference.

<sup>17</sup> Personal communication with Mike Higgins, Senior Project Manager, and Angie Kung, Environmental Sciences Highway Section Manager, both of HDR, June 14, 2021.

**Table 5: Summary of Historic Properties and Effects Finding**

MAP REFERENCE NUMBER	APN	RESOURCE NAME	ADDRESS	YEAR BUILT	EFFECT FINDINGS
n/a	n/a	Stockton Downtown Commercial Historic District	n/a	n/a	No Adverse Effect
3	151-190-001	Imperial Hotel	902 East Main Street	1896	No Adverse Effect
4	151-190-080	Imperial Garage n/a	20 South Aurora Street 30 South Aurora Street	ca. 1915 1918	No Adverse Effect
5	151-190-007	Hotel New York	34 South Aurora Street	1910	No Adverse Effect
6	151-190-060	n/a	915 East Market Street	ca. 1926	No Adverse Effect
7	151-220-020	Waldemar Apartments	920 East Market Street	1918	No Adverse Effect

#### 4.2.1 Stockton Downtown Commercial Historic District

##### 4.2.1.1 *Property Description*

The APE intersects the Stockton Downtown Commercial Historic District. Comprised of 84 contributing buildings within its approximate 21 city-block boundary, only four legal parcels at the district's easternmost boundary are within the APE. A previous evaluation of the district concluded that it was eligible for listing in the NRHP. The present study updated previous evaluations of four of the district's contributing buildings located along South Aurora and East Market streets in the APE. According to the previous evaluation, the district is significant at the local level under NRHP Criterion A within the context of commercial development of Stockton during a period of significance 1880-1940. The boundary of the district was previously identified as generally extending east-west along Weber, Main, and Market streets between El Dorado and the Union Pacific Railroad. Although no specific character-defining features were identified in previous evaluation of the historic district, they would include the integrity of its contributing buildings and structures, including the four buildings in the APE, as well as the historic transportation grid. The historic district and the four contributors within the APE, described below, are historic properties under Section 106.

##### 4.2.1.2 *Application of Criteria of Adverse Effect:*

Project components proposed within or near the Stockton Downtown Commercial Historic District include construction of new tracks; at-grade rail crossings; removal of some existing tracks; the protection-in-place, relocation, and/or removal of various utilities; and temporary construction areas. The new and removed tracks and the crossings would be located outside the historic district boundary, and therefore, would not result in the removal, physical destruction, or damage to the historic district or any of its contributors (36 CFR 800.5[a][2][i], [ii], and [iii]).

Protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, are proposed within the boundary of the historic district, but would not cause the removal, physical destruction, or damage to any of buildings or the historic transportation grid that contribute to the significance of

this district (36 CFR 800.5[a][2][i], [ii], and [iii]). All modifications to utilities would be conducted within the public right-of-way. Set in a dense urban setting, the streets within and adjacent to this historic district have already been altered by the construction and demolition of buildings, as well as construction of contemporary infrastructure such as light standards, mailboxes, signage, traffic and pedestrian light, parking meters, and sidewalk improvements (including sidewalk extensions, curb replacements, etc.). While portions of the street would be physically impacted by the relocation and/or removal of utilities, the historic street grid would be unchanged. Therefore, this relatively minor construction activity would not diminish the integrity of the district's or any of its contributor's significant historic features nor would they result in any adverse visual effects on any part of this historic district (36 CFR 800.5[a][2][iv] and [v]).

Temporary construction areas are proposed north and south of East Main and East Market streets, intersecting some of the district's contributing building. These areas would be used for staging or encroachment permits and temporary construction easements required to allow construction crews to enter public and private rights-of-way. No construction activity would be conducted within any historic property boundary of district contributors. Thus, these areas would not cause any adverse effect under 36 CFR 800.5[a][2][i], [ii], [iii], [iv] and [v]).

The proposed Project would not result in adverse effects to the historic district from the introduction of new visual elements. The new at-grade tracks and rail crossings at East Main and East Market streets would each be located east of and more than 130 feet away from the historic district boundary. The crossings would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way. While the new tracks and crossings would be visible from the eastern end of the district boundary, none of these project components, including the removal of extant tracks, would adversely alter the view or setting of the historic district or any of its contributors because they are consistent with historic-period and existing railroad infrastructure and would blend in with the setting, thus not diminishing the integrity of the district's or any of its contributor's significant historic features (36 CFR 800.5[a][2][iv] and [v]).

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because the historic district is not considered noise sensitive.

The construction and operation of the proposed Project results in a finding of *No Adverse Effect* on the Stockton Downtown Commercial Historic District. See the APE map in Appendix A for the location of this historic property.



## 4.2.2 Imperial Hotel (Map Reference No. 3)

### 4.2.2.1 Property Description

The Imperial Hotel at 902 East Main Street is a one-story, Victorian Eclectic-style building constructed of brick. The building was formerly evaluated in 2000 and found to be eligible to the NRHP at the local level under NRHP Criterion A as a contributor to the Stockton Downtown Commercial Historic District. No character-defining features, period of significance, or boundary of this historic property were noted in the previous evaluation. The character-defining features identified for this property include, but are not limited to, its arched window and door openings, Corinthian columns, terra cotta window and door surrounds, brick work detailing, and corner quoining. The period of significance for this historic property is 1896, the year it was constructed, through 1940, the end of the historic district's period of significance. The historic property boundary of this building is its current legal parcel.



(Source: JRP Historical Consulting, LLC)

**Figure 9: Imperial Hotel, Map Reference No. 3.**

### 4.2.2.2 Application of Criteria of Adverse Effect:

The Project proposes to construct new tracks and an at-grade rail crossing, remove some existing tracks, and protect-in-place, relocate, and/or remove various utilities, near the Imperial Hotel. All of these project components would be located outside of the boundary of this historic property, and therefore, would not result in the removal, physical destruction, or damage to this historic building (36 CFR 800.5[a][2][i], [ii], and [iii]).

The proposed Project would not result in an adverse effect to this historic property from the introduction of new visual elements. The removal of tracks, new at-grade tracks, and rail crossing at East Main Street each would be more than 270 feet east of this building. The crossings would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way.

While the new tracks and crossing would be visible when looking west and northwest from this property, they would not adversely alter the view or setting of this historic property. This building was originally constructed adjacent to this nineteenth-century, at-grade railroad, and the introduction of additional at-grade tracks and crossing in the vicinity of this historic building would be consistent with historic-period and existing railroad infrastructure and would blend in with the setting, thus not diminishing the integrity of this historic building (36 CFR 800.5[a][2][iv] and [v]).

Protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, may be required near this historic property. All modifications to utilities would be conducted within the public right-of-way, more than 90 feet northeast of the Imperial Hotel. This type of project construction activity would be relatively minor and would not adversely alter the view or setting of the historic building, which has already been altered by the construction and demolition of adjacent buildings, as well as construction of contemporary infrastructure. The integrity of the historic property would not be diminished in an adverse manner, thus, there would be no adverse effect from this type of construction activity on the Imperial Hotel (36 CFR 800.5[a][2][iv] and [v]).

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because the historic building is not considered noise sensitive.

Lastly, a temporary construction area intersects the southernmost portion of this historic property's boundary. These areas would be used for staging or encroachment permits and temporary construction easements required to allow construction crews to enter public and private rights-of-way. No construction activity would be conducted within this temporary construction area. Thus, this project component would not cause any adverse effect under 36 CFR 800.5[a][2][i], [ii], [iii], [iv] and [v]).

The proposed Project results in a finding of ***No Adverse Effect*** on the Imperial Hotel. See the APE map in Appendix A for the location of this historic property.

#### 4.2.3 Imperial Garage and 30 South Aurora Street (Map Reference No. 4)

##### *4.2.3.1 Property Description*

The Imperial Garage at 20 South Aurora Street and the similar, adjacent structure at 30 South Aurora Street are one-story Early Commercial buildings. Both rectangular buildings are of brick construction and have symmetrical facades with stepped parapets. The buildings were formerly evaluated in 2001 and found to be eligible to the NRHP at the local level under NRHP Criterion A as a contributor to the Stockton Downtown Commercial Historic District. No character-defining features, period of significance, or boundary of this historic property were noted in the previous evaluation. Character-defining features identified for this report include, but are not limited to, their symmetrical facades, stepped parapets, three bays, and decorative brickwork. The period of significance for these buildings is ca. 1915 and 1918, respectively, the years they were constructed,

through 1940, the end of the historic district's period of significance. Located on a single parcel, the historic property boundary for these buildings is their current legal parcel.



(Source: JRP Historical Consulting, LLC)

**Figure 10: Imperial Garage and 30 South Aurora Street, Map Reference No. 4.**

#### *4.2.3.2 Application of Criteria of Adverse Effect:*

The Project proposes to construct new tracks and an at-grade rail crossing, remove some existing tracks, and protect-in-place, relocate, and/or remove various utilities, near the Imperial Garage and the building at 30 South Aurora Street. All of these project components would be located outside of the boundary of this historic property. Therefore, the proposed Project would not result in the removal, physical destruction, or damage to this historic building (36 CFR 800.5[a][2][i], [ii], and [iii]).

The proposed Project would not result in an adverse effect to this historic property from the introduction of new visual elements. The track removal, construction of new at-grade tracks and new rail crossings at East Main and East Market streets would be more than 180 feet east of these buildings. The crossings would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way. The new tracks and crossings would only be visible when looking west from these buildings' rear (west) sides, however, they would not adversely alter the view or setting of this historic property. These buildings were originally constructed adjacent to this nineteenth-century, at-grade railroad. The introduction of additional at-grade tracks and crossings in the vicinity of these historic buildings would not adversely alter the view or setting of these historic buildings because they are consistent with historic-period and existing railroad infrastructure and would blend in with the setting. The integrity of the historic property would not be diminished in an adverse manner. Therefore, there would be no adverse effect from these project components on this historic property (36 CFR 800.5[a][2][iv] and [v]).

The protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, may be required near this historic property. All modifications to utilities would be conducted within the public right-of-way, more than 115 feet north and southeast of these historic buildings. This type of project construction activity would be relatively minor and would not adversely alter the view or setting of the historic buildings, which have already been altered by the construction and demolition of adjacent buildings, as well as construction of contemporary infrastructure. The integrity of the historic property would not be diminished in an adverse manner, thus, there would be no adverse effect from this project component on the Imperial Garage and the building at 30 South Aurora Street (36 CFR 800.5[a][2][iv] and [v]).

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because the historic building is not considered noise sensitive.

The proposed Project results in a finding of *No Adverse Effect* on the Imperial Garage and the building located at 30 South Aurora Street. See the APE map in Appendix A for the location of this historic property.

#### 4.2.4 Hotel New York (Map Reference No. 5)

##### 4.2.4.1 *Property Description*

The Hotel New York at 34 South Aurora Street is a four-story brick building with stepped parapets and corbeled cornice. It has a modified first floor with stucco siding. Fenestration is generally symmetrical, with double-hung, wood-frame windows on the upper portion of each facade. The building was formerly evaluated in 2001 and found to be eligible to the NRHP at the local level under NRHP Criterion A as a contributor to the Stockton Downtown Commercial Historic District. No character-defining features, period of significance, or boundary of this historic property were noted in the previous evaluation. Character-defining features identified for this report include, but are not limited to, its brick construction, symmetrical fenestration on upper floors, parapeted roof with corbeled cornice, belt courses, window lintels and sills, and construction date plaque. The period of significance for this historic property is 1910, the year it was constructed, through 1940, the end of the historic district's period of significance. The historic property boundary is its current legal parcel.





(Source: JRP Historical Consulting, LLC)

**Figure 11: New York Hotel, Map Reference No. 5.**

#### *4.2.4.2 Application of Criteria of Adverse Effect:*

The Project proposes to construct new tracks and an at-grade rail crossing, remove some existing tracks, and protect-in-place, relocate, and/or remove various utilities, near the Hotel New York. All of these project components would be located outside of the boundary of this property, and thus would not result in the removal, physical destruction, or damage to this historic building (36 CFR 800.5[a][2][i], [ii], and [iii]).

The proposed Project would not result in adverse effects to this historic property from the introduction of new visual elements. The track removal, construction of new at-grade tracks and new rail crossing at East Market Street would be more than 275 feet east of this building. The crossing would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way. The new tracks and crossing would only be visible when looking east from the upper floors of this building's secondary (west) side and southeast from its main (south) façade; however, they would not adversely alter the view or setting of this historic property. This building was originally constructed adjacent to this nineteenth-century, at-grade railroad, and the introduction of additional at-grade tracks and crossing in the vicinity of this historic building would not adversely alter the view or setting of the historic property because they are consistent with historic-period and existing railroad infrastructure and would blend in with the setting, thus not diminishing the integrity of the

historic property. Therefore, there would be no adverse effect from these project components on the Hotel New York (36 CFR 800.5[a][2][iv] and [v]).

The protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, may be required near this historic property. All modifications to utilities would be conducted within the public right-of-way, more than 75 feet southeast of this historic building. This type of project construction activity would be relatively minor and would not adversely alter the view or setting of the historic building, which has already been modified by the construction and demolition of adjacent buildings, as well as construction of contemporary infrastructure. The integrity of the historic property would not be diminished, thus, there would be no adverse effect from this project component on the Hotel New York (36 CFR 800.5[a][2][iv] and [v]).

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because the historic building is not considered noise sensitive.

Lastly, a temporary construction area intersects the southernmost portion of this historic property's boundary. These areas would be used for staging or encroachment permits and temporary construction easements required to allow construction crews to enter public and private rights-of-way. No construction activity would be conducted within this temporary construction area. Thus, this project component would not cause any adverse effect under 36 CFR 800.5[a][2][i], [ii], [iii], [iv] and [v]).

The proposed Project results in a finding of *No Adverse Effect* on the Hotel New York. See the APE map in Appendix A for the location of this historic property.

#### 4.2.5 915 East Market Street (Map Reference No. 6)

##### 4.2.5.1 *Property Description*

The building at 915 East Market Street is a two-story brick structure with a hipped roof and parapets with corbeled cornice. The building was formerly evaluated in 2001 and found to be eligible to the NRHP at the local level under NRHP Criterion A as a contributor to the Stockton Downtown Commercial Historic District. No character-defining features, period of significance, or boundary of this historic property were noted in the previous evaluation. Character-defining features identified for this report include, but are not limited to, Flemish bond brick construction, brick parapet, and brick window surrounds that incorporate soldier and header courses. The period of significance for this historic property is ca. 1926, the year it was constructed, through 1940, the end of the historic district's period of significance. The historic property boundary is its current legal parcel.





(Source: JRP Historical Consulting, LLC)

**Figure 12: 915 East Market Street, Map Reference No. 6.**

#### *4.2.5.2 Application of Criteria of Adverse Effect:*

The Project proposes to construct new tracks and an at-grade rail crossing, remove some existing tracks, and protect-in-place, relocate, and/or remove various utilities, near the historic building at 915 East Market Street. All of these project components would be located outside of the boundary of this property, and thus would not result in the removal, physical destruction, or damage to this historic building (36 CFR 800.5[a][2][i], [ii], and [iii]).

The proposed Project would not result in adverse effects to this historic property from the introduction of new visual elements. The track removal, construction of new at-grade tracks and new rail crossing at East Market Street would be more than 200 feet east of this building. The crossing would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way. The new tracks and crossing would only be visible when looking east from the building's secondary (west) side and southeast from its main (south) façade; however, they would not adversely alter the view or setting of this historic property. This building was originally constructed adjacent to this nineteenth-century, at-grade railroad, and the introduction of additional at-grade tracks and crossing in the vicinity of this historic building would not adversely alter the view or setting of the historic property because they are consistent with historic-period and existing railroad infrastructure and would blend in with the setting. The integrity of the historic property would not be diminished, therefore, there would be no adverse effect from these project components on this historic property (36 CFR 800.5[a][2][iv] and [v]).

The protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, may be required near this historic property. All modifications to utilities would be conducted within the public right-of-way, more than 40 feet southeast of this historic building. This type of project construction activity would be relatively minor and would not adversely alter the view or setting of the historic building, which has already been modified by the construction and demolition of adjacent buildings, as well as construction of contemporary infrastructure. The integrity of the historic property would not be diminished, thus, there would be no adverse effect from this project component on this historic property (36 CFR 800.5[a][2][iv] and [v])

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because the historic building is not considered noise sensitive.

Lastly, a temporary construction area intersects the southernmost portion of this historic property's boundary. These areas would be used for staging or encroachment permits and temporary construction easements required to allow construction crews to enter public and private rights-of-way. No construction activity would be conducted within this temporary construction area. Thus, this project component would not cause any adverse effect under 36 CFR 800.5[a][2][i], [ii], [iii], [iv] and [v]).

The proposed Project results in a finding of ***No Adverse Effect*** on the historic building at 915 East Market Street. See the APE map in Appendix A for the location of this historic property.

#### 4.2.6 Waldemar Apartments (Map Reference No. 7)

##### *4.2.6.1 Property Description*

The Waldemar Apartments at 920 East Main Street is an early twentieth century, three-story, brick building with Classical details. It has a flat roof, symmetrical façade, corbeled parapet, diamond-patterned belt course; and double-hung wood windows. The building is eligible for the NRHP at the local level under NRHP Criterion C as a representative example of a multi-storied, masonry apartment building constructed in the early twentieth century. Its period of significance is 1918, the year it was constructed, and character-defining features consist of its scale and massing; corbeled parapet; diamond-patterned belt course; flat roof; symmetrical fenestration that appears to still contain one-over-one, double-hung wood sash windows with brick lentils and sills; belt course between first and second floors; Flemish-bond, multi-colored brick; and primary and secondary entrances. The boundary of the property is its current legal parcel.<sup>18</sup>

<sup>18</sup> Architectural Resources Group, *Revised Draft Downtown Stockton Historic Resources Survey*, prepared for the City of Stockton, September 1, 2000, Appendix One.



(Source: JRP Historical Consulting, LLC)

**Figure 13: Waldemar Apartments, Map Reference No. 7.**

#### *4.2.6.2 Application of Criteria of Adverse Effect:*

The Project proposes to construct new tracks and an at-grade rail crossing, remove some existing tracks, and protect-in-place, relocate, and/or remove various utilities, near the Waldemar Apartments at 920 East Market Street. All of these project components would be located outside of the boundary of this property, and thus would not result in the removal, physical destruction, or damage to this historic building (36 CFR 800.5[a][2][i], [ii], and [iii]).

The proposed Project would not result in adverse effects to this historic property from the introduction of new visual elements. The track removal, construction of new at-grade tracks and new rail crossing at East Market Street would be more than 180 feet east of this building. The crossing would include the upgrading of railroad equipment, flashing light signals, gate arms, signing and pavement markings, as well as potential pedestrian upgrades such as ADA-compliant tactile walking surface indicators and streetlights. These types of railroad, roadway, and pedestrian features, and tracks would be located within, or immediately east of, the railroad right-of-way. The new tracks and crossing would only be visible when looking east from the building's secondary (west) side and northeast from its main (north) façade; however, they would not adversely alter the view or setting of this historic property. This building was originally constructed adjacent to this nineteenth-century, at-grade railroad, and the introduction of additional at-grade tracks and crossing in the vicinity of this historic building would not adversely alter the view or setting of the historic property because they are consistent with historic-period and existing railroad infrastructure and would blend in with the setting. The integrity of the historic property would not be diminished, therefore, there would be no adverse effect from these project components on this historic property (36 CFR 800.5[a][2][iv] and [v]).

The protection-in-place, relocation and/or removal of utilities, such as storm drains, underground water, sewer, and gas lines and overhead electrical lines and fiber optic cable, may be required near this historic property. All modifications to utilities would be conducted within the public right-of-way, approximately 20 feet or more northeast of this historic building. This type of project construction activity would be relatively minor and would not adversely alter the view or setting of the historic building, which has already been modified by the construction and demolition of adjacent buildings, as well as construction of contemporary infrastructure. The integrity of the historic property would not be diminished, thus, there would be no adverse effect from this project component on this historic property (36 CFR 800.5[a][2][iv] and [v])

The proposed Project would not cause adverse effects from vibration and noise under 36 CFR 800.5(a)(2)(v). Technical analysis of potential vibration impacts indicates that the proposed Project would not generate sufficient construction or operational ground-borne vibration to modify any of the characteristics that qualify this historic property for inclusion in the NRHP. Furthermore, the proposed Project would not result in adverse effects to this historic property from any anticipated construction or operational noise (36 CFR 800.5[a][2][iv] and [v]) because this historic building is not considered noise sensitive.

Lastly, a temporary construction area intersects the southernmost portion of this historic property's boundary. These areas would be used for staging or encroachment permits and temporary construction easements required to allow construction crews to enter public and private rights-of-way. No construction activity would be conducted within this temporary construction area. Thus, this project component would not cause any adverse effect under 36 CFR 800.5[a][2][i], [ii], [iii], [iv] and [v]).

The proposed Project results in a finding of *No Adverse Effect* on the Waldemar Apartments. See the APE map in Appendix A for the location of this historic property.



## **5. PREPARERS' QUALIFICATIONS**

This study was conducted under the general direction of JRP Principal, Christopher McMorris (M.S., Historic Preservation, Columbia University). Mr. McMorris has more than 22 years of experience working as a consulting architectural historian on a wide variety of historical research and cultural resource management projects as a researcher, author, and project manager. Mr. McMorris meets and exceeds the Secretary of the Interior's Professional Qualification Standards under History and Architectural History (as defined in 36 CFR Part 61).

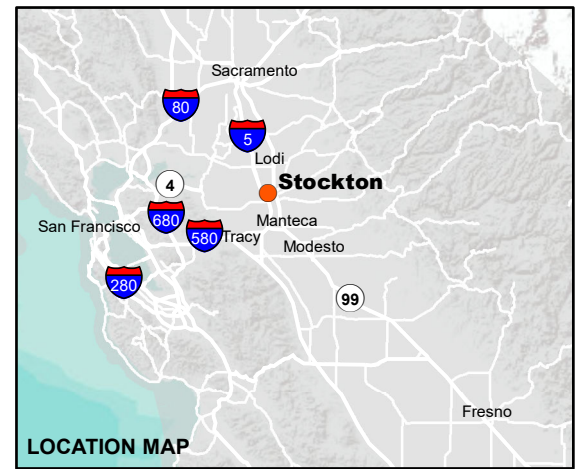
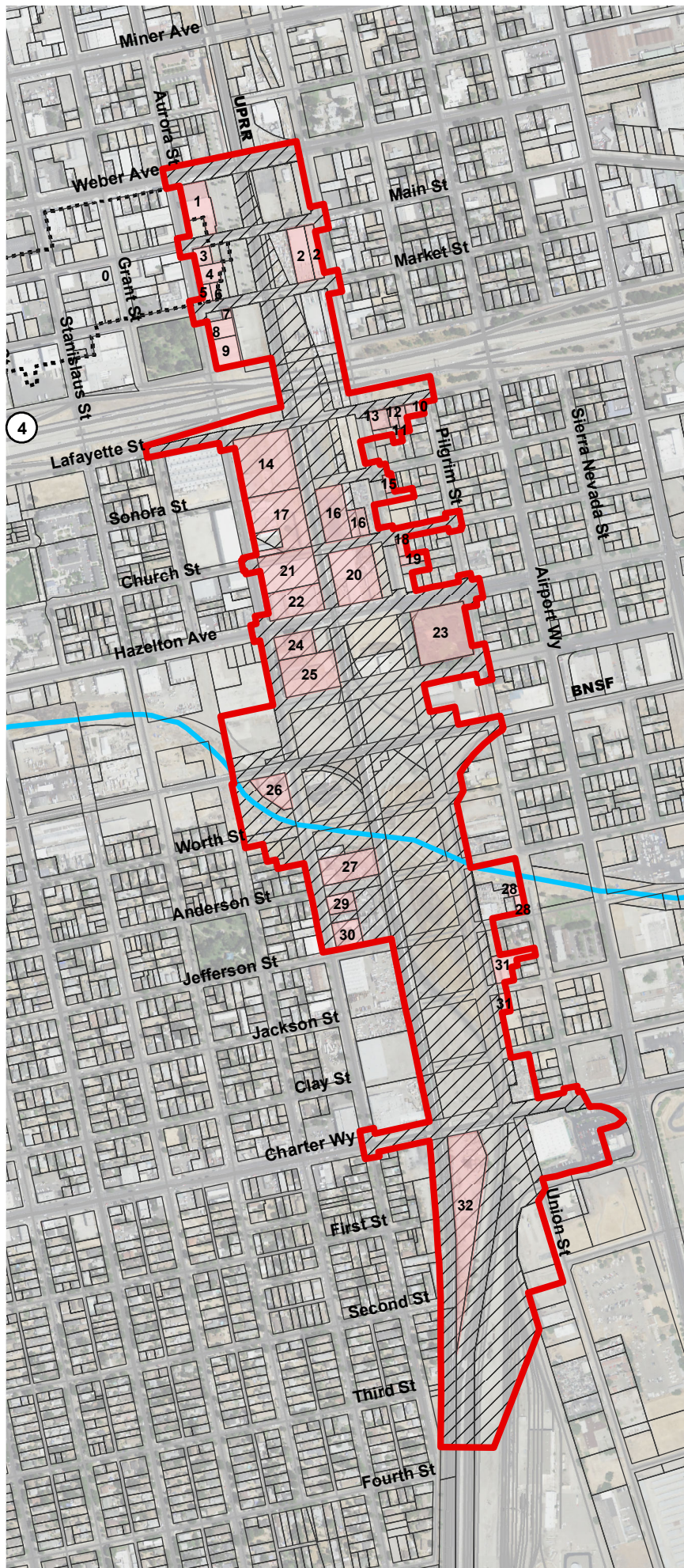
JRP Architectural Historian Toni Webb was the project manager/lead architectural historian for the project. Ms. Webb served as lead architectural historian and primary author of the FOE. Ms. Webb received a B.F.A. in Historic Preservation from the Savannah College of Art & Design and has over 21 years of experience in historic preservation and public history. Based on her level of experience and education, Ms. Webb meets and exceeds the Secretary of the Interior's Professional Qualification Standards under History and Architectural History.

## 6. REFERENCES







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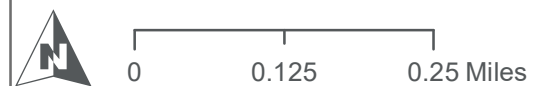


**Appendix A**  
**Area of Potential Effects Map**



## AREA OF POTENTIAL EFFECTS (APE)

-  Mormon Slough
-  Project Footprint
-  APE
-  Map Reference Number
-  Parcel Boundaries
-  Stockton Downtown Commercial Historic District

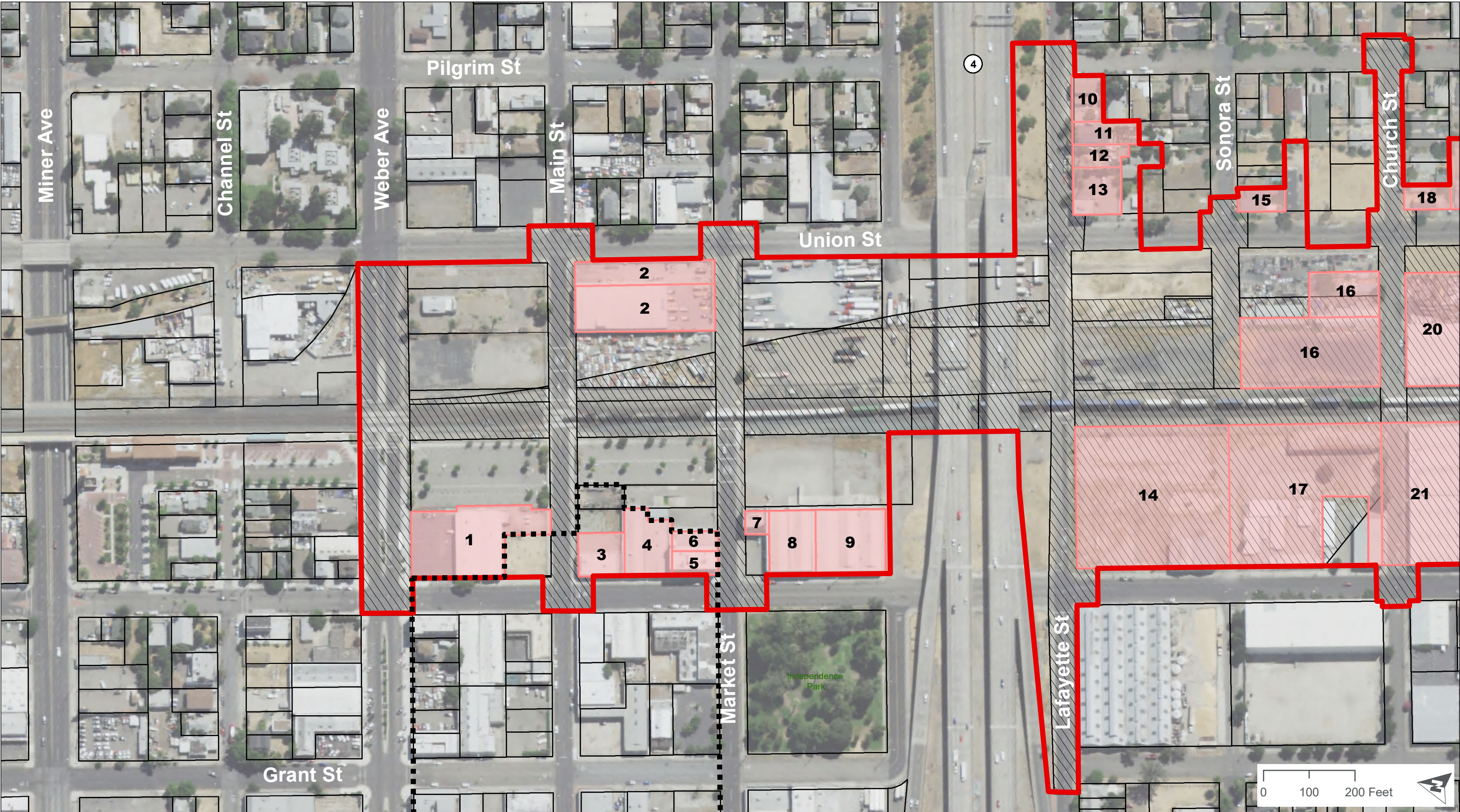


**DATA SOURCE:** City of Stockton, San Joaquin County GIS Data (2019) and USGS Aerial Imagery (2018), ESRI, NOAA



MAP CREATED ON: 2/12/2021



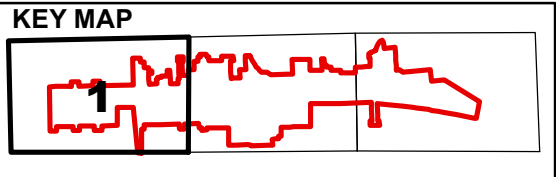


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GIS Data (2019) and USGS Aerial Imagery (2018), ESRI, NOAA

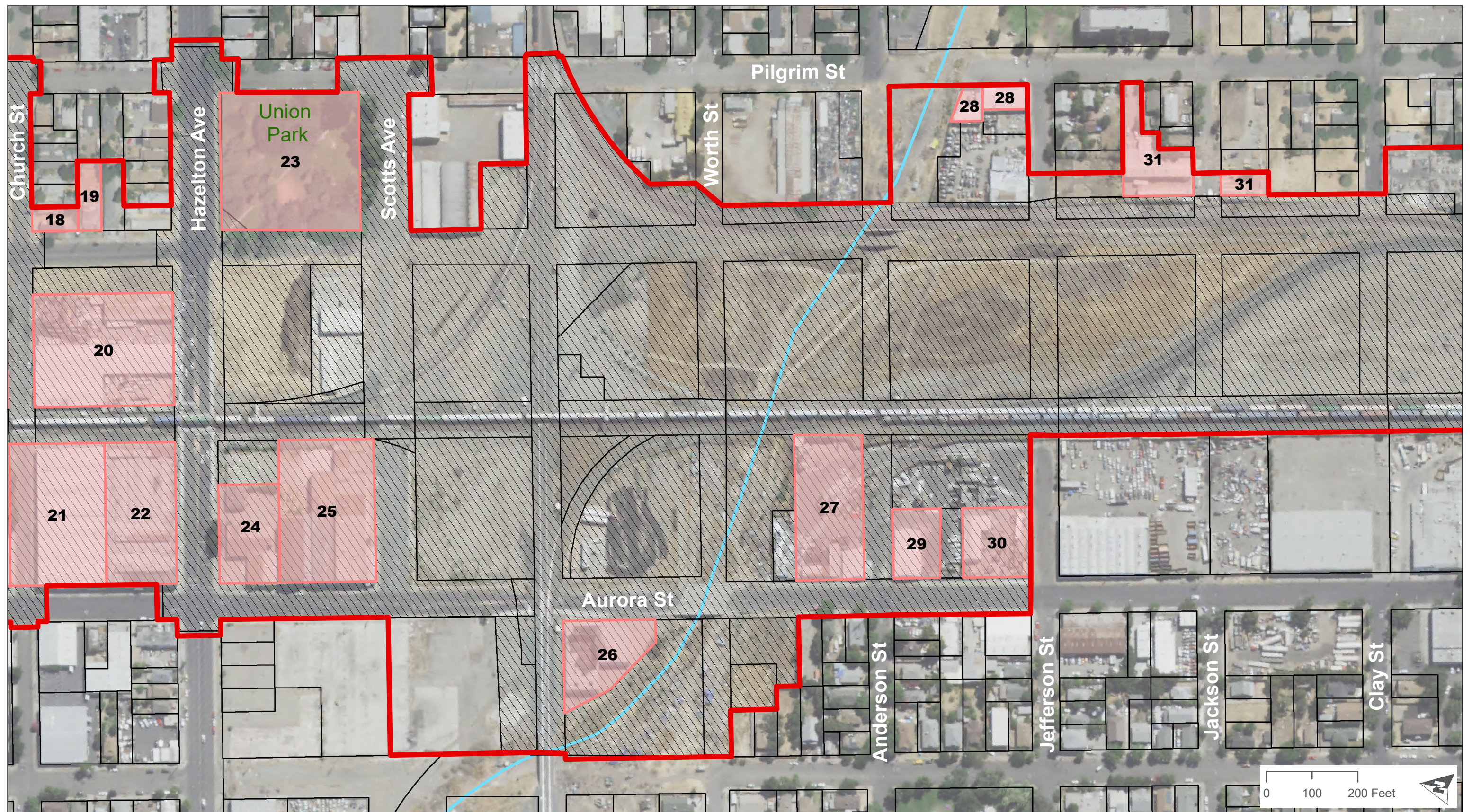
**HDR**

**STOCKTON  
DIAMOND**  
Unlocking Northern  
California's Freight and  
Passenger Rail Potential

- Project Footprint
- Area of Potential Effects (APE)
- Map Reference Number
- Parcel Boundaries
- Stockton Downtown Commercial Historic District





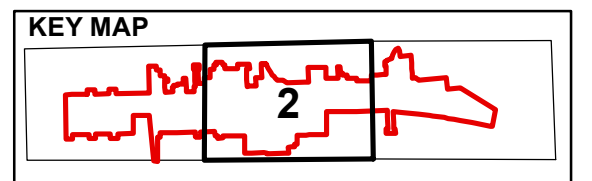


DATA SOURCE: City of Stockton, San Joaquin County  
GIS Data (2019) and USGS Aerial Imagery (2018), ESRI, NOAA



- Mormon Slough
- Project Footprint
- Area of Potential Effects (APE)

- Map Reference Number
- Parcel Boundaries





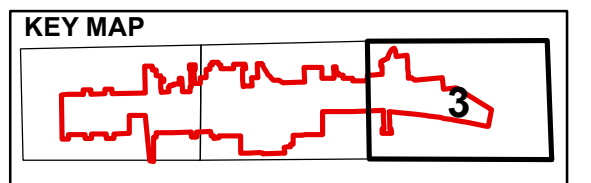


DATA SOURCE: City of Stockton, San Joaquin County  
GIS Data (2019) and USGS Aerial Imagery (2018), ESRI, NOAA



- Project Footprint
- Area of Potential Effects (APE)
- Map Reference Number

Parcel Boundaries





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**Appendix B**  
**Correspondence**

**Project** Stockton Diamond Grade Separation Project  
**Subject** Communications with interested parties re: historic resources  
**Notes Prepared By** Toni Webb, JRP Historical Consulting, LLC

**Notes:**

Interested Party	Communication Date	Notes
San Joaquin County Historical Society & Museum P. O. Box 30, Lodi, California 95241-0030 Phone: (209) 331-2055 Email: info@sanjoaquinhistory.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
Haggin Museum 1201 N. Pershing Ave. Stockton, CA 95203-1699 Phone: (209) 940-6300 Email: info@hagginmuseum.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
San Joaquin Genealogical Society P.O. Box 690243 Stockton, California 95269-0243 Email: AskUs@sjgensoc.org	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	Follow-up message sent via email. No response received.
City of Stockton Cultural Heritage Board c/o Community Development Department 345 North El Dorado Street Stockton, CA 95202-1997 Phone: (209) 937-8444	October 29, 2020	Letter sent via US Mail. No response received.
	January 14, 2021	No follow-up message sent because interested party has no listed email.



**SAN JOAQUIN  
REGIONAL  
RAIL COMMISSION**

Chair, **Christina Fugazi**, City of Stockton  
Vice-Chair, **Leo Zuber**, City of Ripon  
Commissioner, **Debby Moorhead**, City of Manteca  
Commissioner, **Doug Kuehne**, City of Lodi

Executive Director, **Stacey Mortensen**

Commissioner, **Nancy Young**, City of Tracy  
Commissioner, **Bob Elliott**, San Joaquin County  
Commissioner, **Scott Haggerty**, Alameda County  
Commissioner, **John Marchand**, City of Livermore

October 29, 2020

RE: Stockton Diamond Project

To Whom It May Concern:

The San Joaquin Regional Rail Commission (SJRRRC) and California High Speed Rail Authority (CHSRA) propose to replace an at-grade crossing of the Union Pacific Railroad (UPRR) and Burlington Northern & Santa Fe Railway Company (BNSF) rail lines with a railroad grade separation. Rail-over-rail grade separation is a method of aligning a junction of two or more at-grade rail lines at different heights (grades) so that they will not disrupt the traffic flow on each other's transit routes when they converge at the junction point. Grade separations generally allow rail to move freely, with fewer interruptions, and at higher overall speeds. In addition, reducing the complexity of traffic movements at a junction between at-grade rail lines—coupled with vehicular, bicycle, and pedestrian traffic—reduces the potential for rail, vehicle, and bicycle/pedestrian conflicts. The "Stockton Diamond," where the UPRR and BNSF tracks converge and cross one another at grade, is located in the City of Stockton. The general project limit extends southward from Weber Street to the UPRR Stockton Yard, and from Stanislaus Street eastward to Pilgrim Street. See the enclosed map.

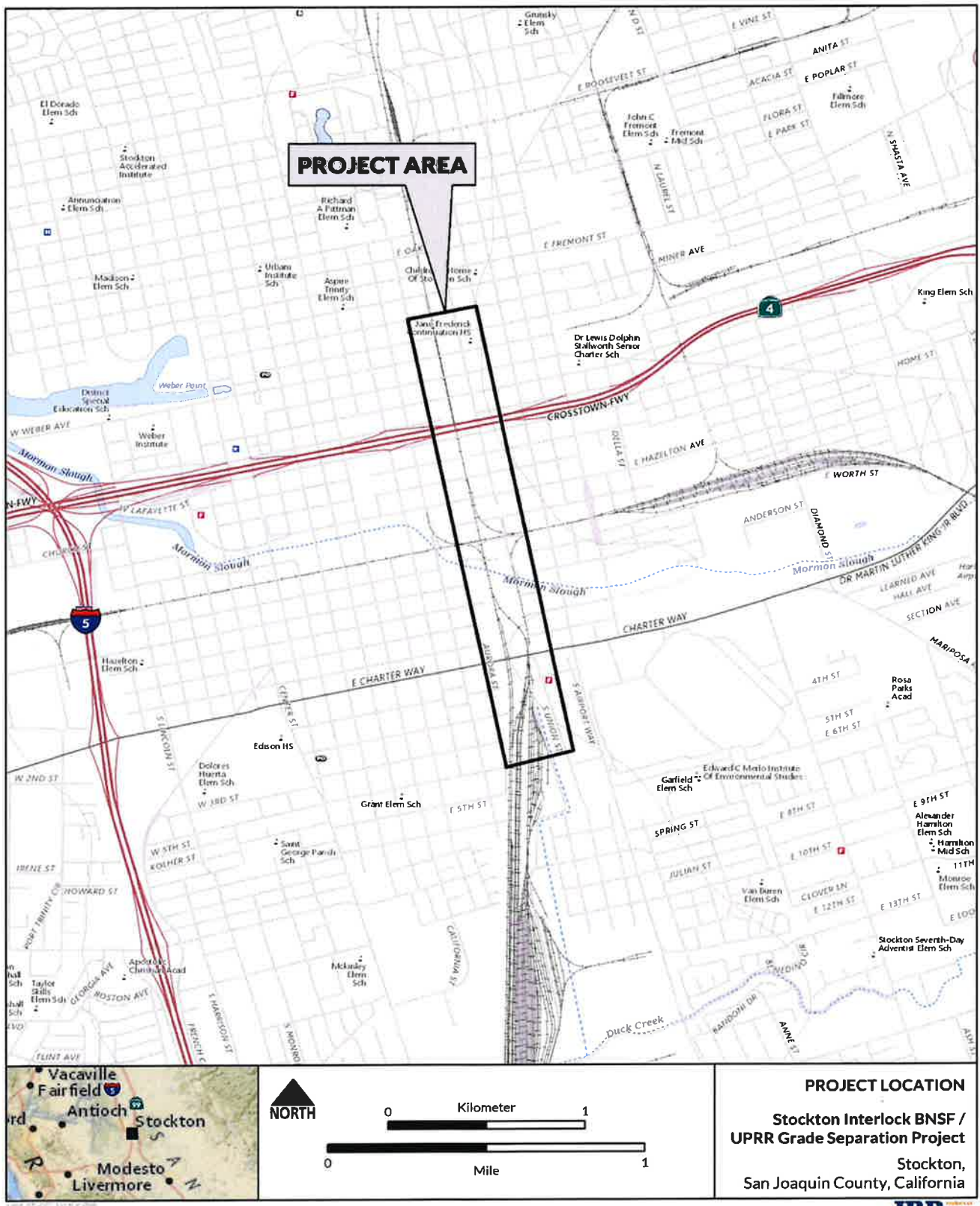
JRP Historical Consulting, LLC (JRP) has been retained to conduct a study to survey and evaluate historic-era buildings and structures that may be affected by the proposed project for their eligibility to be listed in the National Register of Historic Places and/or the California Register of Historical Resources. JRP's study will be prepared to support the project's environmental compliance under the National Environmental Policy Act (NEPA), along with its compliance under Section 106 of the National Historic Preservation Act and its implementing regulations in Title 36 Code of Federal Regulations Part 800 (36 CFR 800). JRP's study will also be prepared for project compliance under the and California Environmental Quality Act (CEQA), as per CEQA Guidelines Section 15064.5. CHSRA is lead NEPA agency, and SJRRRC is the lead CEQA agency.

If you or your organization has any information or concerns regarding historic resources in the area that could be affected by this project, please respond via email to JRP Architectural Historian, Toni Webb, at [twebb@jrphistorical.com](mailto:twebb@jrphistorical.com), or in writing to her at JRP Historical Consulting, LLC, 2850 Spafford Street, Davis, CA 95618, within the next thirty (30) days. Please note, this is not a request for research, just for information. Thank you for any assistance you can provide.

Sincerely,

Kevin Sheridan  
Director of Capital Projects

Enclosures: Project Area Map



**List of Recipients**

San Joaquin County Historical Society and Museum  
P. O. Box 30, Lodi, California 95241-0030  
Phone: (209) 331-2055  
Email: [info@sanjoaquinhistory.org](mailto:info@sanjoaquinhistory.org)

City of Stockton Cultural Heritage Board  
c/o Community Development Department  
345 North El Dorado Street  
Stockton, CA 95202-1997  
Telephone: (209) 937-8444

Haggin Museum  
1201 N. Pershing Ave.  
Stockton, CA 95203-1699  
Phone: (209) 940-6300  
Email: [info@hagginmuseum.org](mailto:info@hagginmuseum.org)

San Joaquin Genealogical Society  
P.O. Box 690243  
Stockton, California 95269-0243  
Email: [AskUs@sjgensoc.org](mailto:AskUs@sjgensoc.org)



## Toni Webb

---

**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:21 AM  
**To:** info@hagginmuseum.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*

## Toni Webb

---

**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:22 AM  
**To:** AskUs@sjgensoc.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*

## Toni Webb

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**From:** Toni Webb  
**Sent:** Thursday, January 14, 2021 8:19 AM  
**To:** info@sanjoaquinhistory.org  
**Subject:** Stockton Diamond Grade Separation Project  
**Attachments:** Signed Letter to Interested Parties.pdf

This email serves as a follow-up to a letter (see attachment) sent via US Postal Service by the San Joaquin Regional Rail Commission to your organization on October 29, 2020 regarding historic resources that may be located within the vicinity of the Stockton Diamond Grade Separation Project. This communication is to confirm that your organization received that letter and to inquire if you have any information or concerns about historic resources in the project area. If you do have any questions or concerns, please reply to this email or contact me via phone or in writing (see contact information below) as soon as possible.

Thank you,

**Toni Webb | Architectural Historian**  
530.757.2521 ext. 115



*Our office is working remotely until further notice. The best way to reach me is by email or voicemail at the number and extension listed. I will get back to you as soon as I can.*



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## Attachment C. Final Record of Non-Applicability



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## Stockton Diamond Grade Separation Project

### San Joaquin Regional Rail Commission

### Record of Non-Applicability

Prepared by:

U.S. Department of Transportation

Federal Railroad Administration

The Federal Railroad Administration has prepared this Record of Non-Applicability, consistent with Section 176(c) of the Federal Clean Air Act, 42 U.S.C. 7401-7671 et seq., and its implementing regulations, 40 CFR Part 93 ("General Conformity Rule"). Specifically, this Record of Non-Applicability documents FRA's finding that a general conformity determination is not required for the proposed action because the total of direct and indirect emissions is below the *de minimis* emissions levels for criteria pollutants.

7/26/2022

Date of Approval

MARLYS A  
OSTERHUES

Digitally signed by MARLYS  
A OSTERHUES

Date: 2022.07.26 13:20:34  
-04'00'

Marlys Osterhues  
Chief of Environment and Project Engineering Division  
Federal Railroad Administration

For further information, please contact:

Lana Lau (she • her • hers)  
Supervisory Environmental Protection Specialist  
U.S. Department of Transportation  
Federal Railroad Administration  
Environmental and Corridor Planning  
1200 New Jersey Ave., SE  
Washington, D.C. 20590  
(202)-923-5314



## Record of Non-Applicability (RONA) for Clean Air Act Conformity, San Joaquin County, California

Consistent with the Clean Air Act (40 U.S.C. 7401 – 7671 et seq.) and the General Conformity Rule (40 CFR Part 93), federal agencies must work with state, tribal and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The federal agency is responsible for determining whether a federal action conforms to the applicable implementation plan before the action is taken. However, federal actions may be exempt from conformity determinations if they do not exceed designated *de minimis* levels for criteria pollutants.

The Federal Railroad Administration (FRA) evaluated conformity for the Proposed Action (the Stockton Diamond Grade Separation Project [Project]) and determined a general conformity determination is not required as the total direct and indirect emissions of the Proposed Action as below the *de minimis* thresholds for criteria pollutants within the San Joaquin Valley Air Basin (SJVAB). This Record of Non-Applicability (RONA) documents FRA's evaluation.<sup>1</sup> This Record of Non-Applicability (RONA) document's FRA evaluation, because the analysis used for the Final Environmental Assessment/Finding of No Significant Impact (EA/FONSI) also generated the information necessary for the General Conformity Determination, specific analysis may be incorporated herein by reference.

### Proposed Action

The San Joaquin Regional Rail Commission (SJRRRC), the project sponsor of the Proposed Action proposes to replace the existing at-grade intersection of the BNSF Railway (BNSF) Stockton Subdivision and Union Pacific Railroad (UP) Fresno Subdivision, with a grade-separated structure (flyover bridge) that would elevate the UP main tracks over the BNSF main tracks.

### Applicability Evaluation

The Proposed Action is located in San Joaquin County and may potentially affect the San Joaquin Valley Air Basin (SJVAB) by construction and operation. In 2019, SJRRRC conducted a Benefit-Cost Analysis (BCA) for the Stockton Diamond Grade Separation Project (HDR 2019).<sup>2</sup> Where appropriate, the BCA was used to support air quality emissions and benefits analyzed in this RONA.

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<sup>1</sup> The environmental review, consultation, and other actions required by applicable federal environmental laws for the Proposed Action are being or have been carried out by the State of California pursuant to 23 United States Code (USC) 327 and a Memorandum of Understanding dated July 23, 2019 (MOU), executed by FRA and the State of California. Although CHSRA is the lead NEPA agency for the environmental review, consistent with 23 U.S.C. 327 and the MOU, FRA retains its obligations to make general conformity determinations under the Clean Air Act. No comments were received on the Draft EA Chapter 3.13 Air Quality.

<sup>2</sup> Both the Proposed Action and the 2019 design, evaluated in the BCA, include the same grade separation of the existing at-grade crossing of the BNSF and UP freight rail lines. In contrast to the 2019 design, the Proposed Action would result in fewer road crossings and will therefore likely result in fewer emissions. In addition, the BCA analyzed the same reduction in train delays as the Proposed Action.



*De minimis* levels (in tons/year) for criteria pollutants within the SJVAB are listed in Table 1.

**Table 1: General Conformity *de minimis* levels for the San Joaquin Valley Air Basin**

Pollutant	Area Designation	De minimis Level (tons/year)
Oxides of Nitrogen (NO <sub>x</sub> )*	Extreme Nonattainment – Ozone	10
Volatile Organic Compounds (VOC)*	Extreme Nonattainment – Ozone	10
Coarse Particulate Matter (PM <sub>10</sub> )	Maintenance	100
Fine Particulate Matter (PM <sub>2.5</sub> )	Nonattainment	100

\* Both NO<sub>x</sub> and VOC are ozone precursors.

## Short-term Criteria Air Emissions

The Proposed Action would generate a short-term release of criteria air emissions from the operation of construction equipment, soil hauling and delivery trucks to and from the construction site, and construction worker's vehicles commuting during construction activities. Additionally, particulate matter emissions would result from the movement of soil and wind-blown dust from disturbed surfaces during construction.

These short-term construction emissions generated as a result of the Proposed Action were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0. CalEEMod is a computer model developed by the California Air Pollution Officers Association (CAPCOA) with the input of several air quality management and pollution control districts; the model estimates anticipated emission burdens associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The SJVAB database was used for the purposes of construction emissions analysis for the Proposed Action.

In preparing the National Environmental Policy Act (NEPA) analysis for the Proposed Action, CHSRA quantitatively analyzed and included in the emissions modeling three design options for the Proposed Action: soil embankment, precast concrete panel system with lightweight cellular concrete fill, and viaduct bridge structure. Any of the three design options in the Proposed Action will likely result in fewer construction-period air quality impacts than the 2019 design, as a result of the design changes, which reduce the amount of construction undertaken. A summary of emission sources from all three design options are provided, below.

### Soil Embankment Option

Table 2 summarizes the construction equipment type, the quantity of equipment, hours of operation, horsepower, and load factor for each construction activity under the soil embankment option for the Proposed Action.



**Table 2: Construction Equipment – Soil Embankment Design Option**

Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
<b>Earthwork</b>				
Dump Truck	9	8	402	0.38
Excavator	2	8	158	0.38
Motor Grader	1	8	187	0.41
Water Truck	3	8	350	0.38
Bulldozer	3	8	452	0.42
Vibratory Soil Compactor	1	8	157	0.42
Sheep Foot Roller	1	8	80	0.38
Motor Scraper	3	8	367	0.48
Front End Loader	3	8	475	0.37
<b>Charter Way Yard Connection Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Charter Way Main Track Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Mormon Slough Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Signal Work</b>				
180-ton Service Crane	1	8	550	0.29
Excavator	1	8	158	0.38
Small Backhoe	1	8	97	0.37
Gang Truck	2	8	330	0.38
<b>Flyover Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29





Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Track Work</b>				
Track Laying Machine	1	8	120	0.42
Speed Swing	1	8	163	0.42
Skid Steer	1	8	65	0.37
Excavator	1	8	158	0.38
Front End Loader	1	8	475	0.37
Railroad Tamper	1	8	110	0.42
100-ton Crane	1	8	231	0.29
Fork Truck	1	8	89	0.2
Lowboy Truck	1	8	550	0.38
Grapple Truck	1	8	455	0.38
<b>Hazeltown Avenue Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Roadway Work</b>				
Dump Truck	4	8	402	0.38
Wheel Loader	1	8	475	0.37
Asphalt Paver	1	8	130	0.42
Roller Compactor	1	8	131	0.43

The annual construction emissions generated with the construction of the soil embankment option of the Proposed Action are shown in Table 3.

**Table 3: Annual Construction Emissions – Soil Embankment Design Option (tons/year)**

Year	NO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
2023	2.44	0.33	0.34	0.11
2024	4.84	0.69	0.57	0.21
2025	4.85	0.86	0.58	0.22
2026	0.91	0.19	0.08	0.04
<b>Peak Emissions</b>	<b>4.85</b>	<b>0.86</b>	<b>0.58</b>	<b>0.22</b>
<b>de minimis Criteria</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>



## Precast Panel Walls with Lightweight Cellular Concrete Fill Option

Table 4 summarizes the construction equipment type, the quantity of equipment, hours of operation, horsepower, and load factor for each construction activity under the precast panel walls with lightweight cellular concrete fill option for the Proposed Action.

**Table 4: Construction Equipment – Precast Panel Walls with Lightweight Cellular Concrete Fill Option**

Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
<b>Earthwork</b>				
Dump Truck	9	8	402	0.38
Excavator	2	8	158	0.38
Motor Grader	1	8	187	0.41
Water Truck	3	8	350	0.38
Bulldozer	3	8	452	0.42
Vibratory Soil Compactor	1	8	157	0.42
Sheep Foot Roller	1	8	80	0.38
Motor Scraper	3	8	367	0.48
Front End Loader	3	8	475	0.37
<b>Retaining Wall Construction</b>				
Concrete Pump Truck	1	8	405	0.38
Vibration Equipment	1	8	88	0.34
Excavator	1	8	158	0.38
Delivery Truck	3	8	402	0.38
Front End Loader	1	8	475	0.37
Water Truck	2	8	350	0.38
<b>Charter Way Yard Connection Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Charter Way Main Track Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Mormon Slough Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29



Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Signal Work</b>				
180-ton Service Crane	1	8	550	0.29
Excavator	1	8	158	0.38
Small Backhoe	1	8	97	0.37
Gang Truck	2	8	330	0.38
<b>Flyover Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Track Work</b>				
Track Laying Machine	1	8	120	0.42
Speed Swing	1	8	163	0.42
Skid Steer	1	8	65	0.37
Excavator	1	8	158	0.38
Front End Loader	1	8	475	0.37
Railroad Tamper	1	8	110	0.42
100-ton Crane	1	8	231	0.29
Fork Truck	1	8	89	0.2
Lowboy Truck	1	8	550	0.38
Grapple Truck	1	8	455	0.38
<b>Hazelton Avenue Bridge Construction</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Roadway Work</b>				
Dump Truck	4	8	402	0.38
Wheel Loader	1	8	475	0.37
Asphalt Paver	1	8	130	0.42
Roller Compactor	1	8	131	0.43



The annual construction emissions from the precast panel walls with lightweight cellular concrete fill option of the Proposed Action are shown in Table 5.

**Table 5: Annual Construction Emissions – Precast Panel Walls with Lightweight Cellular Concrete Fill Option (tons/year)**

Year	NOx	VOC	PM10	PM2.5
2023	1.52	0.17	0.24	0.07
2024	2.96	0.29	0.34	0.13
2025	3.49	0.68	0.35	0.15
2026	0.92	0.19	0.08	0.04
<b>Peak Emissions</b>	<b>3.49</b>	<b>0.68</b>	<b>0.35</b>	<b>0.15</b>
<b>de minimis Criteria</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>

## Viaduct Bridge Structure Option

Table 6 summarizes the construction equipment type, the quantity of equipment, hours of operation, horsepower, and load factor for each construction activity under the precast panel walls with the viaduct bridge structure option for the Proposed Action.

**Table 6: Construction Equipment – Viaduct Bridge Structure Option**

Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
<b>Earthwork</b>				
Dump Truck	9	8	402	0.38
Excavator	2	8	158	0.38
Motor Grader	1	8	187	0.41
Water Truck	3	8	350	0.38
Bulldozer	3	8	452	0.42
Vibratory Soil Compactor	1	8	157	0.42
Sheep Foot Roller	1	8	80	0.38
Motor Scraper	3	8	367	0.48
Front End Loader	3	8	475	0.37
<b>Long Viaduct Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Charter Way Yard Connection Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42



Equipment Type	Quantity	Hours per day	Horsepower	Load Factor
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Charter Way Main Track Bridge</b>				
180-ton Service Crane	3	8	550	0.29
300-ton Crane	2	8	617	0.29
Manlifts	4	8	89	0.20
Concrete Pump Truck	2	8	405	0.38
Pile Driving Hammer	1	8	310	0.42
Vibration Equipment	1	8	88	0.34
Plasma Cutter	1	8	17	0.45
Welder	3	8	46	0.45
<b>Retaining Wall Construction</b>				
Concrete Pump Truck	1	8	405	0.38
Vibration Equipment	1	8	88	0.34
Excavator	1	8	158	0.38
Delivery Truck	3	8	402	0.38
Front End Loader	1	8	475	0.37
Water Truck	2	8	350	0.38
<b>Signal Work</b>				
180-ton Service Crane	1	8	550	0.29
Excavator	1	8	158	0.38
Small Backhoe	1	8	97	0.37
Gang Truck	2	8	330	0.38
<b>Track Work</b>				
Track Laying Machine	1	8	120	0.42
Speed Swing	1	8	163	0.42
Skid Steer	1	8	65	0.37
Excavator	1	8	158	0.38
Front End Loader	1	8	475	0.37
Railroad Tamper	1	8	110	0.42
100-ton Crane	1	8	231	0.29
Fork Truck	1	8	89	0.20
Lowboy Truck	1	8	550	0.38
Grapple Truck	1	8	455	0.38
<b>Roadway Work</b>				
Dump Truck	4	8	402	0.38
Wheel Loader	1	8	475	0.37
Asphalt Paver	1	8	130	0.42
Roller Compactor	1	8	131	0.43

The annual construction emissions from the viaduct bridge structure option of the Proposed Action are shown in Table 7.





**Table 7: Annual Construction Emissions – Viaduct Bridge Structure Option (tons/year)**

Year	NO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
2023	1.29	0.22	0.17	0.06
2024	2.51	0.47	0.34	0.13
2025	2.01	0.43	0.31	0.12
2026	0.81	0.18	0.10	0.04
<b>Peak Emissions</b>	<b>2.51</b>	<b>0.47</b>	<b>0.34</b>	<b>0.13</b>
<b><i>de minimis</i> Criteria</b>	<b>10</b>	<b>10</b>	<b>100</b>	<b>100</b>

As shown in Tables 3, 5, and 7, annual construction emissions generated by the three design options for the Proposed Action are well below the SJVAB general conformity *de minimis* levels. Therefore, although the proposed Action will generate short-term construction emissions, these emissions would be well below the *de minimis* levels for the SJVAB.

## Long-term Air Emissions

Table 8 summarizes the total long-term emissions reduction and the average annual emissions reduction for the Proposed Action.

**Table 8: Operational Emissions (tons)**

Emissions Source	NO <sub>x</sub>	VOC	PM	SO <sub>2</sub>	CO <sub>2</sub>
Train Idling	-40.53	-1.55	-0.66	-2.15	-11,677.7
Vehicle Idling (BNSF Crossings)	-7.75	-1.44	-0.69	-0.38	-53,678.8
Vehicle Idling (UP Crossings)	-6.18	-1.06	-0.46	-0.22	-31,233.40
Total (30 Years)	-54.46	-4.06	-1.82	-2.75	-96,589.5
Average Year	-1.82	-0.14	-0.06	-0.09	-3,219.7

As shown in Table 8, the Proposed Action will result in a long-term decrease in criteria pollutant emissions when compared to the No Action Alternative as described in the Final EA/FONSI. The Proposed Action will improve regional passenger and freight rail efficiency and travel reliability by reducing conflicting train movements and improve air quality through the reduction of criteria pollutant emissions caused by trains and vehicles that sit idling due to congestion and delays. The improved freight mobility will reduce the total daily occupancy of the roadway crossings by approximately 30 percent in 2045. In addition, the reduction in crossing occupancy will improve on-road traffic flow and reduce vehicle idling, resulting in a reduction in overall emissions within the Project Study Area.

The BCA calculated the 30-year reduction in train idling and on-road vehicle idling emissions associated with the 2019 design and the elimination of the existing at-grade crossings. As the design changes from the 2019 design and Proposed Action would generally not affect the long-term emissions assumptions, the emission reductions associated with the 2019 design were assumed for the Proposed Action. Based on these assumptions, and the reduced impact on local roads, the Proposed Action will reduce overall emissions within the SJVAB during the operation period.



## Conclusion

Based on the findings above, FRA concludes that implementation of the Proposed Action would not result in exceedances of the *de minimis* thresholds for applicable criteria pollutants. Since the total direct and indirect emissions of the Project Action are below the *de minimis* thresholds for criteria pollutants within the SJVAB FRA concludes a general conformity determination is not required.

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