

REGIONAL TRANSIT ISSUE PAPER

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
7	06/13/16	Open	Action	06/01/16

Subject: Adoption of Initial Study/Mitigated Declaration for Sacramento Valley Station Area Improvements Project

ISSUE

Whether to adopt the Initial Study and Mitigated Negative Declaration for the Sacramento Valley Station Area Improvements Project.

RECOMMENDED ACTION

Adopt Resolution No. 16-06-___, Certifying the Initial Study/Mitigated Negative Declaration (IS/MND) and Approving the Mitigation Monitoring and Reporting Plan for the Sacramento Valley Station Area Improvements Project.

FISCAL IMPACT

None from this action.

DISCUSSION

The Sacramento Regional Transit District (RT) serves the Sacramento Valley Station (SVS) with the Gold Line light rail service and with Route 30 bus service. RT also operates the Green Line light rail service nearby on 7th Street; however, at this time, the Green Line does not directly serve the SVS. A key objective of the project is to extend Green Line service to the SVS, which would be accomplished by installation of a new “loop” track and station in the SVS area. This objective is consistent with RT’s long-term plan for light rail service in the SVS area. Notably, RT included the loop track and station as part of the Locally Preferred Alternative for the Downtown-Natomas-Airport (now Green Line to the Airport) project adopted by the RT Board of Directors in December 2003. RT subsequently conducted a program-level California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) on the Locally Preferred Alternative; the RT Board of Directors certified the EIR and approved the project in April 2008. RT’s improvements in the SVS area help support the City’s long-term development program for that area. Funding for the project will come from state sources with local matching funds.

In support of the SVS Area Improvements Project, an Initial Study (IS) was prepared pursuant to CEQA, resulting in a draft decision to prepare a Mitigated Negative Declaration (MND) under the Guidelines of the State Secretary for Resources, (Title 14, California Code of Regulations, Section 15070). An Errata Sheet (Exhibit A) has been prepared to reflect the changes made to the IS/MND based on the comments received. The SVS Project is illustrated in Exhibit B. The IS/MND is presented in Exhibit C and was made available for 30 days for public review and comment starting on March 29, 2016. A public hearing before the RT Board of Directors was held

Approved:

Presented:

Final 06/07/16

General Manager/CEO

Director, Long Range Planning

J:\Board Meeting Documents\2016\10 June 13, 2016\2016-06-13 Sac Valley Station Area Improvements Project Final.doc

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on April 25, 2016, and no comments were received. The IS/MND comment period closed on April 28, 2016.

Written comments on the IS/MND were received from the following agencies and organizations:

- Judicial Council of California
- Sacramento Superior Court
- Sacramento County Sheriff’s Department
- Sacramento Municipal Utilities District
- Sacramento Metropolitan Air Quality Management District
- Central Valley Regional Water Quality Control Board
- United Auburn Indian Community.

A summary of comments and responses is provided below. In addition, RT continues to work with the City of Sacramento (“City”), and City comments and RT’s responses also are discussed below. Most comments were directed at issues to be considered in final design and during construction, and are being considered by the Engineering Division for possible inclusion into the project.

Based on the comments received and the responses detailed below, staff recommends adoption of the IS/MND.

City of Sacramento

The City of Sacramento has participated in the review of conceptual project designs, and various departments including Planning and Public Works have provided input. The City did not provide written comments on the draft IS/MND, but provided suggestions for the project as it is advanced into final design. On May 4, 2016, RT and City staff met to discuss these suggestions and comments on the IS/MND. Most of the discussion topics focused on the project design details, including the following:

- Pedestrian circulation needs additional consideration, including pedestrian flow between the new light rail station and H Street. RT should work with the City and the Railyards developer to provide pedestrian access along the north side of the loop tracks.
- Existing emergency and service vehicle access needs to be maintained between the Amtrak walkway and the west side of the new light rail station (in the area referred to as Midway Plaza by the City). This was RT’s intent, but the circulation diagrams did not make this clear. Emergency and service vehicles will be able to drive onto the pedestrian plaza.
- The old passenger platform canopies are contributing features of the Sacramento Southern Pacific Railroad Station Historic District. Demolition should be performed in a way that maintains their structural integrity (e.g., cut off at structural supports) and should be properly finished. If possible, the finished edges should recreate the historic details found in the existing canopies.
- Signage and monuments should be coordinated to ensure consistent wayfinding between all users of City, Amtrak, and RT services at this intermodal facility.

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- Station security should be coordinated with the City, including feeding security cameras into the City’s real-time monitoring center operated by the City Police Department.
- Wheel squeal is addressed near residences, but also should be addressed at the 5th Street/H Street intersection and along the curve between the proposed light rail station and H Street to reduce impacts to an area planned for high pedestrian use (Midway Plaza).

Most issues are likely to be fully resolved during final design, but in some cases RT may not be able to fully address City concerns. For example, RT follows federal guidelines for reducing adverse noise impacts from wheel squeal, and the guidelines do not require mitigation in active open spaces such as the SVS and the proposed plaza. As the project is advanced into final design, RT staff will continue to work with the City to review design details and otherwise collaborate on items of mutual interest.

In addition, RT and the City are beginning to discuss long-term Operating and Maintenance (O&M) arrangements. RT will operate and maintain the new light rail station, likely with a new easement from the City. However, the adjacent pedestrian plaza is shared between the City and RT, and the "dividing line" will need to be confirmed along with an agreement for maintenance responsibilities. This will require RT and the City to consider both with-project conditions - the new loop track and light rail station - and future conditions as the City continues to develop SVS land uses.

The City also suggested some changes to the Initial Study text to clarify parts of the evaluation. In some cases, text changes are warranted - the changes listed below are proposed in response to City comments. The proposed text changes add clarity to the discussion, but do not add new information of substantial importance.

Text changes are presented using ~~strikeout~~ to indicate deleted text and underline to indicate new text. The text changes noted herein are also presented in the Errata Sheet to the Initial Study/Mitigated Negative Declaration (Exhibit A).

The City requested that text regarding storm drainage to adjacent Railyards property (Lot 40) be changed. The Initial Study describes the ongoing drainage improvements associated with the Railyards project, including anticipated contributions from the SVS area, and does not state that RT’s project would drain to Lot 40. The Initial Study also concludes that final design would be consistent with regional standards such as the *Sacramento Region Stormwater Quality Design Manual*. For this reason, the Initial Study correctly describes RT’s intent regarding future drainage improvements, and no changes are needed. However, to provide clarification in response to this comment, the following text change is proposed for the Initial Study document in Section 4.9.2(e) - *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

LESS-THAN-SIGNIFICANT IMPACT. The project would generate a minor amount of new runoff associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards stations. Approximately 2 acres of newly paved areas would be added as part of

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the project, including the potential pedestrian access improvements near the SVS. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas with no impervious surfaces. In addition, ~~there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and~~ further storm drainage improvements are planned as part of several ongoing projects such as F Street construction west of 7th Street.

In addition, the following text change is proposed for the Initial Study document in Section 4.17.2(c) - *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

LESS-THAN-SIGNIFICANT IMPACT. As described above in Section 4.9, Hydrology and Water Quality, the project area is in a portion of the City served by a combined sewer system. The project would generate a minor amount of new runoff associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas with no impervious surfaces. In addition, ~~there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and~~ further storm drainage improvements are planned as part of several ongoing projects such as F Street construction west of 7th Street. Drainage improvements required by the proposed project will be coordinated with the City Department of Utilities.

The City requested that text regarding water use be clarified. The Initial Study correctly describes anticipated water use in Section 4.17.2(d), as follows: "Most project elements would not require water. For example, no restroom facilities would be installed at the SVS or Railyards Station. Water would be required for drinking fountains and to irrigate landscaping installed at the stations and along pedestrian pathways, and water would be used during construction for dust control. Water needs for these uses would be small, and would not require new or expanded water entitlements from the City." However, text in two other sections of the Initial Study indicate that there would be no water use. To provide clarification in response to this comment, the following text change is proposed for the Initial Study document in Section 4.13.2(a) - *Exceed wastewater treatment requirements of the applicable RWQCB?*

NO IMPACT. The project does not have facilities or uses that require substantial water use or wastewater disposal services. Because the project would not increase demand for water or wastewater utilities, it would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, there would be no impact.

The following text change is proposed for the Initial Study document in Section 4.17.2(a) - *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

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NO IMPACT. The project does not include facilities or uses that would require substantial water use or wastewater disposal services. No restroom facilities would be installed at the SVS or Railyards Station. Because the project would not increase demand for water or wastewater utilities, there would be no impact.

The following text change is proposed for the Initial Study document in Section 4.16.1, which describes the environmental setting for Transportation and Traffic.

The transportation analysis focuses on the immediate vicinity of the SVS. This is a multimodal station area where pedestrians and bicyclists mix with motor vehicle and train traffic. The traffic mix is generated by station users and the surrounding downtown Sacramento land uses, which are largely office, commercial, and retail related. Operation of the existing roadway, bicycle, and pedestrian network is governed by the City; the following agencies are responsible for passenger rail transit and bus transit serving the station and surrounding area:

- RT operates light rail transit and fixed-route bus service.
- Amtrak operates long-distance intercity passenger rail and bus service.
- Capitol Corridor Joint Powers Authority operates intercity passenger rail service between the Bay Area and Sacramento region.
- The San Joaquin Joint Powers Authority provides intercity passenger rail service between the San Joaquin Valley, Sacramento, and Oakland.

In addition, the City also noted that electrical service to the new facilities, including the bus charging station, must be provided by the Sacramento Municipal Utilities District (SMUD) – capacity is not available in the City’s existing electrical distribution system at the SVS site. RT will coordinate with SMUD during final design to ensure that electrical services are provided and that no conflicts occur with existing utilities. Additional information is presented below in response to SMUD comments.

Judicial Council of California, Sacramento Superior Court, and Sacramento County Sheriff

The Judicial Council of California, Sacramento Superior Court, and Sacramento County Sheriff each sent similar letters regarding the future Superior Courthouse building planned for the north side of H Street between 5th and 6th Streets. General and specific concerns expressed in each letter include trains blocking in-custody transport and emergency vehicle movements into and out of the courthouse basement garage, increased noise and vibration impacts, and potential conflicts with pedestrian access. RT has been working together with the Judicial Council, as project lead, to coordinate how frontage improvements can be made in a manner that allows safe movement of pedestrians as well as minimizes conflicts with vehicle movements into and out of the courthouse.

Most comments were directed at issues to be considered in final design. It should be noted that the Initial Study includes flexibility in the project construction footprint such that some adjustments can be made during final design. This is expected to allow for design changes that may be required to physically accommodate the new tracks and the overhead catenary system along the H Street frontage. In terms of light rail vehicle movements, all trains would follow local traffic signals in this area such that any driveway blockage would be relatively limited as traffic signals

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change. The Gold Line currently operates along H Street and the future courthouse will experience some driveway blockage regardless of whether the project is approved. The addition of the second track is needed to serve the Gold and Green Lines, and would add new Green Line trains passing by the courthouse site every 15 minutes in addition to existing Gold Line service. In addition, RT understands that evacuations or other emergency responses at the courthouse may result in temporary disruption of light rail vehicle movements.

RT Staff agrees with Sheriff Jones regarding the need for more discussion concerning any potential issues moving forward with the architectural design of the new facility and the proposed placement of the new light rail tracks along the north side of H Street. As the courthouse design moves forward and as RT's project is advanced into final design, the Engineering Division will continue to work with the Judicial Council, Superior Court, and Sheriff's Office to review design details and otherwise collaborate on items of mutual interest. The proposed loop track was included in RT's 2003 Adopted Locally Preferred Alternative and its 2008 Program EIR, as well as the 2009 City and Caltrans/Federal Highway Administration (FHWA) Environmental Assessment for the Sacramento Intermodal Transportation Facility. As a result, the plans to construct a loop track to serve SVS are not a new concept, and RT in partnership with the City has submitted a grant application for construction funding. For these reasons, staff does not agree that adoption of the IS/MND should be delayed until the Judicial Council makes a final decision on the courthouse project.

Sacramento Municipal Utility District

RT received three comment letters from SMUD, from the following divisions: Environmental Management, Distribution Planning, and Transmission Line Engineering. All of the letters addressed details regarding the delivery of electrical power to the new RT facilities as well as potential conflicts with existing SMUD facilities along and adjacent to H Street. The information in the letters will be very helpful as RT advances the project into final design, and RT staff will be continuing to study the potential for utility conflicts and options for resolution in close collaboration with SMUD. The Initial Study includes flexibility in the project construction footprint such that some adjustments can be made during final design. This is expected to allow for design changes that may be required to physically accommodate the new tracks where utility conflicts cannot be otherwise resolved. Also, it should be noted that RT does not anticipate the need for new traction power facilities for the project - electrical needs can be met from existing traction power substations in Downtown Sacramento and the Railyards area.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) suggests that air quality mitigation be consistent with the Downtown Natomas Airport Light Rail Transit Program EIR, which references standard construction mitigation. It should be noted that the 2008 Program EIR is in the process of being updated as part of the Green Line to the Airport project, and is being advanced to a project-level analysis that also complies with the federal National Environmental Policy Act (NEPA). For this reason, the 2008 Program EIR has limited applicability to RT's SVS Improvements Project and the proposed IS/MND is not considered a tiered document.

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As a stand-alone document, the Initial Study includes an evaluation of project emissions in comparison to SMAQMD thresholds (see Initial Study Table 4-2), and concludes that emissions would be below the thresholds and therefore less than significant. In addition, it should be noted that the IS/MND requires that the project be constructed in compliance with SMAQMD regulations and policies, and best management practices will be implemented to reduce emissions from both construction and operations.

Central Valley Regional Water Quality Control Board

The Central Valley Regional Water Quality Control Board (RWQCB) describes the need for compliance with various laws and regulations including the Porter-Cologne Water Quality Control Act, the General Permit for Storm Water Discharges Associated with Construction Activities, the Municipal Separate Storm Sewer System permit, construction dewatering permits, and federal and state permits associated discharges into Waters of the United States/Waters of the State. Regulatory compliance for water quality protection is described in Section 4.9, Hydrology and Water Quality, of the Initial Study, including commitments to follow laws and regulations as appropriate for the project. No changes to the Initial Study are needed in response to the RWQCB letter.

United Auburn Indian Community

Consistent with the procedural requirements of AB 52, the United Auburn Indian Community (UAIC) previously notified RT of its interests in local projects and potential project impacts on tribal cultural resources. In response to notices published for the SVS Improvements Project, UAIC requested to initiate consultation with RT under AB 52. UAIC also requested that RT allow tribal representatives to observe and participate in all cultural resource surveys and, if appropriate, to observe ground disturbing activities including subsurface testing and data recovery.

The comments expressed by UAIC are consistent with the analysis presented in the Initial Study. Specifically, Section 4.5.2(e) addresses the potential for adverse changes in the significance of a tribal cultural resource with a determination that impacts would be less than significant with the implementation of mitigation measures MM CUL 1 through MM CUL 4. These measures describe processes for archaeological resources avoidance and minimization, including archival research, subsurface exploration, construction monitoring, and implementation of an Unanticipated Discovery Plan in the event archaeological resources are encountered during construction. In addition, the Initial Study describes a process where staff directed AB 52 outreach in late 2015 in order to inform potentially affected tribes of the project. Consistent with the requirements of AB 52 and as requested by UAIC, RT will continue to undertake tribal consultation during final design and construction.

RESOLUTION NO. 16-06-_____

Adopted by the Board of Directors of the Sacramento Regional Transit District on this date:

June 13, 2016

CERTIFYING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND APPROVING THE MITIGATION MONITORING AND REPORTING PLAN FOR THE SACRAMENTO VALLEY STATION AREA IMPROVEMENTS PROJECT.

WHEREAS, an Initial Study (IS) was prepared by and for the Sacramento Regional Transit District (RT) for the proposed Sacramento Valley Station Area Improvements (the Project) under the Guidelines of the State Secretary for Resources, (Title 14, California Code of Regulations, Section 15070); and

WHEREAS, the proposed loop track was included in RT's 2003 Adopted Locally Preferred Alternative and its 2008 Program EIR, as well as the 2009 City and Caltrans/FHWA Environmental Assessment for the Sacramento Intermodal Transportation Facility; and

WHEREAS, the IS was prepared to ascertain whether the Project would have a significant effect on the environment and to identify any project changes and/or mitigation measures to avoid or reduce any such impacts to a less than significant level; and

WHEREAS, the Initial Study identified less than significant impacts with mitigation for Biological Resources, Cultural resources and Noise; and

WHEREAS, RT consulted with and requested comments on the IS from Responsible Agencies and other federal, state and local agencies in compliance with California Environmental Quality Act (CEQA) Guidelines; and

WHEREAS, the Initial Study, a Notice of Intent to Adopt a Mitigated Negative Declaration, and a Mitigated Negative Declaration were provided to the public and Responsible Agencies and other federal, state and local agencies in compliance with California Environmental Quality Act (CEQA) Guidelines; and

WHEREAS, the County Clerk posted the proposed Mitigated Negative Declaration for 30 days from March 29, 2016 to April 28, 2016; and

WHEREAS, RT conducted a public hearing on the proposed Project to solicit public comments on April 25, 2016; and

WHEREAS, written comments were received from the following agencies and organizations:

- Judicial Council of California;
- Sacramento Superior Court;
- Sacramento County Sheriff's Department;
- Sacramento Municipal Utilities District;
- Sacramento Metropolitan Air Quality Management District;
- Central Valley Regional Water Quality Control Board;
- United Auburn Indian Community; and

WHEREAS, RT has responded to the comments received and made minor changes to the Mitigated Negative Declaration to address the issues in response to the comments received; and

WHEREAS, RT has identified steps during Final Design and/or construction of the Project to address concerns raised from the comments received.

THEREFORE, BE IT FURTHER RESOLVED, that this Board does hereby adopt the following findings, which this Board finds are supported by substantial evidence in light of the whole record:

- A. THAT, an Initial Study has been prepared pursuant to CEQA;
- B. THAT, the Initial Study identified less than significant impacts with mitigation on the environment from the proposed Project;
- C. THAT, the Initial Study identified mitigation measures which would avoid or mitigate the effects of the Project to a point where no significant impacts would occur;
- D. THAT, the Initial Study/Mitigated Negative Declaration incorporates mitigation measures in the Project which would avoid or mitigate the effects to a point where no significant impacts would occur;
- E. THAT, the Board certifies the Initial Study/Mitigated Negative Declaration has been completed and circulated in compliance with CEQA and is consistent with state and RT guidelines implementing CEQA;
- F. THAT, the Board has reviewed and considered the subject Initial Study, the proposed Mitigated Negative Declaration, all comments received during the public review period, as well as written and oral comments and other evidence presented by all persons, including members of the public and staff members, who appeared and addressed the Board;
- G. THAT, the Board has before it all of the necessary environmental information required by CEQA to properly analyze and evaluate any and all of the potential environmental effects of the proposed Project;
- H. THAT, the Board has reviewed and considered the Initial Study and the Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program, which reflects the Board's independent judgment;
- I. THAT, the Board finds that there is no substantial evidence in the record that the Project, as mitigated, will have a substantial effect on the environment. Mitigation measures for Biological Resources, Cultural Resources and Noise have been incorporated into the Project to reduce impacts to a less than significant level; and
- J. THAT, based on the evidence presented and the records and files herein, the Board determines that the Project will not have a significant effect on the environment if the mitigation measures listed and identified in the Mitigated Negative Declaration are implemented.

RESOLVED FURTHER THAT, the Board approves and adopts a Mitigated Negative Declaration for the Sacramento Station Area Improvements Project, set out as Exhibits A, B and C, and incorporated herein by this reference; and

RESOLVED FURTHER THAT, the Board approves and adopts a Mitigated Negative Declaration to include those mitigation measures prescribed in the Initial Study/Mitigated Negative Declaration for the Project, and the text changes presented in this Issue Paper and noted herein as the Errata Sheet, as a condition of the approval of the Project; and

RESOLVED FURTHER THAT, the Board approves the Project and directs staff to file a Notice of Determination within five working days of this approval; and

RESOLVED FURTHER THAT, the Board designates the Director, Long Range Planning, or his/her designee, located at 1400 29th Street, Sacramento, CA 95812, as the custodian of the records in this matter.

JAY SCHENIRER, Chair

A T T E S T:

MICHAEL R. WILEY, Secretary

By: _____
Cindy Brooks, Assistant Secretary

ERRATA**Sacramento Valley Station (SVS) Area Improvements Project
Initial Study/Mitigated Negative Declaration (IS/MND)**

This document has been prepared based on comments received on the Sacramento Valley Station (SVS) Area Improvements Project Initial Study (IS), dated March 2016. Text changes are warranted in response to comments. The proposed text changes add clarity to the discussion, but do not add new information of substantial importance. Text changes are presented using ~~strikeout~~ to indicate deleted text and underline to indicate new text. The text changes noted herein shall serve to update the Initial Study/Mitigated Negative Declaration (IS/MND).

To provide clarification regarding stormwater drainage, the following text change is noted for the IS document in Section 4.9.2(e) - *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

LESS-THAN-SIGNIFICANT IMPACT. The project would generate a minor amount of new runoff associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas with no impervious surfaces. In addition, ~~there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and~~ further storm drainage improvements are planned as part of several ongoing projects such as F Street construction west of 7th Street.

In addition, the following text change is noted for the IS document in Section 4.17.2(c) - *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

LESS-THAN-SIGNIFICANT IMPACT. As described above in Section 4.9, Hydrology and Water Quality, the project area is in a portion of the City served by a combined sewer system. The project would generate a minor amount of new runoff associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas with no impervious surfaces. In addition, ~~there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and~~ further storm drainage improvements are planned as part of several ongoing projects such as F Street construction west of

EXHIBIT A

7th Street. Drainage improvements required by the proposed project will be coordinated with the City Department of Utilities.

Text in two sections of the IS indicate that there would be no water use. To provide clarification, the following text change is noted for the IS document in Section 4.17.2(a) - *Exceed wastewater treatment requirements of the applicable RWQCB?*

NO IMPACT. The project does not have facilities or uses that require substantial water use or wastewater disposal services. Because the project would not increase demand for water or wastewater utilities, it would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, there would be no impact.

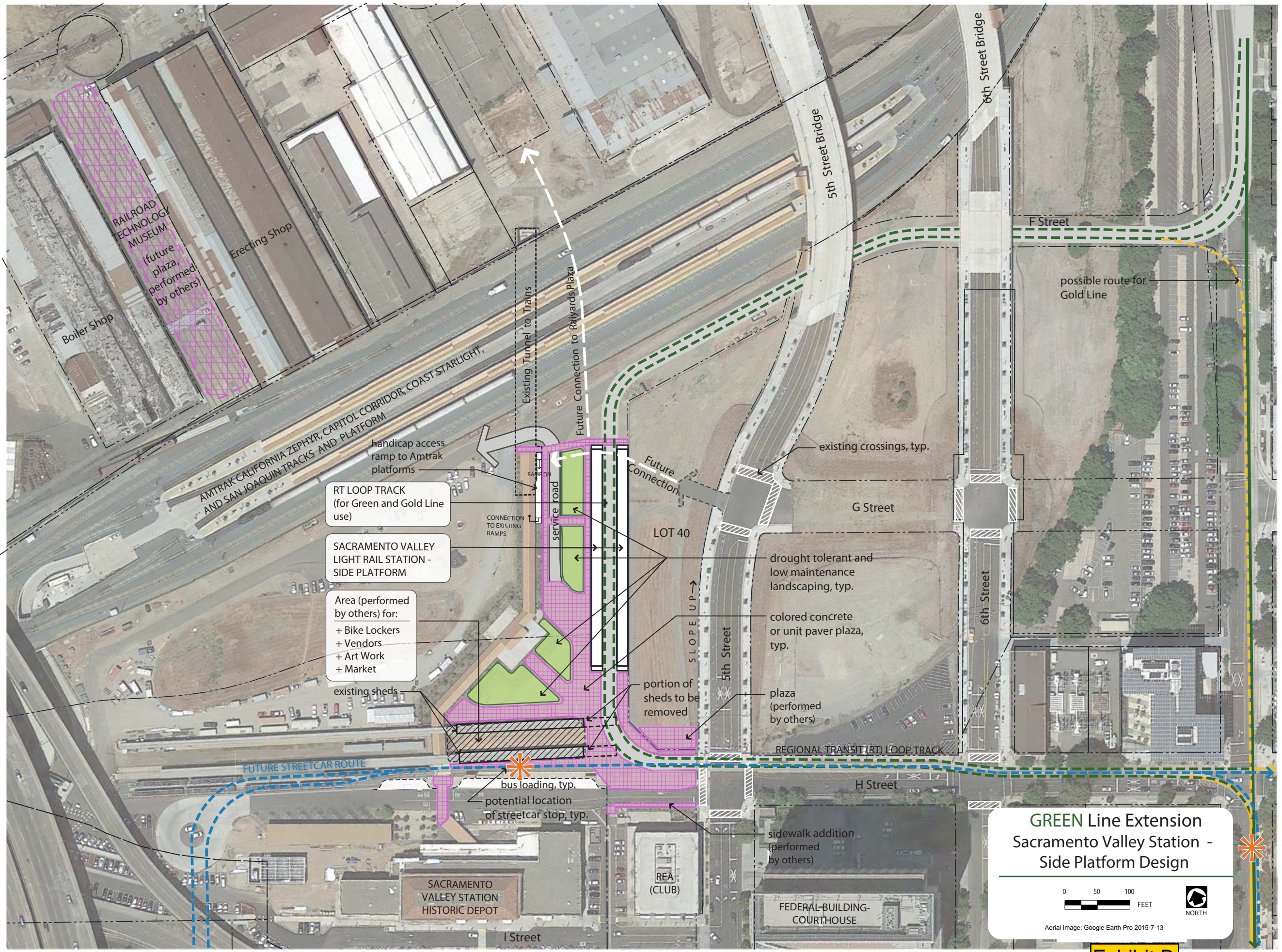
The following text change is noted for the IS document in Section 4.17.2(b) – *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

NO IMPACT. The project does not include facilities or uses that would require substantial water use or wastewater disposal services. No restroom facilities would be installed at the SVS or Railyards Station. Because the project would not increase demand for water or wastewater utilities, there would be no impact.

The IS does not mention use of the SVS by the San Joaquin Joint Powers Authority. The following text change is noted for the IS document in Section 4.16.1, which describes the environmental setting for Transportation and Traffic.

The transportation analysis focuses on the immediate vicinity of the SVS. This is a multimodal station area where pedestrians and bicyclists mix with motor vehicle and train traffic. The traffic mix is generated by station users and the surrounding downtown Sacramento land uses, which are largely office, commercial, and retail related. Operation of the existing roadway, bicycle, and pedestrian network is governed by the City; the following agencies are responsible for passenger rail transit and bus transit serving the station and surrounding area:

- RT operates light rail transit and fixed-route bus service.
- Amtrak operates long-distance intercity passenger rail and bus service.
- Capitol Corridor Joint Powers Authority operates intercity passenger rail service between the Bay Area and Sacramento region.
- The San Joaquin Joint Powers Authority provides intercity passenger rail service between the San Joaquin Valley, Sacramento, and Oakland.



RT LOOP TRACK
(for Green and Gold Line use)

SACRAMENTO VALLEY LIGHT RAIL STATION - SIDE PLATFORM

Area (performed by others) for:
 + Bike Lockers
 + Vendors
 + Art Work
 + Market

GREEN Line Extension
 Sacramento Valley Station - Side Platform Design

0 50 100 FEET

NORTH

Aerial Image: Google Earth Pro 2015-7-13

Exhibit B

INITIAL STUDY

Sacramento Valley Station Area Improvements Project

Prepared for

Sacramento Regional Transit District

1400 29th Street
Sacramento, CA 95816

March 2016



2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833

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Acronyms and Abbreviations

AB	Assembly Bill
ARB	California Air Resources Board
AREMA Manual	<i>Manual for Railway Engineering</i>
BACT	best available control technology
B.P.	Before Present
bgs	below the ground surface
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAPCOA	California Air Pollution Control Officers Association
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CEQA Guide	<i>CEQA Guide to Air Quality Assessment in Sacramento County</i>
City	City of Sacramento
CO	carbon monoxide
CO ₂	carbon dioxide
County	Sacramento County
CPRR	Central Pacific Railroad
CRHR	California Register of Historical Resources
CSS	combined sewer system
dB	decibel
dBA	decibels A-weighted scale
Depot	Southern Pacific Railroad Sacramento Depot
DPR	Department of Parks and Recreation
DPM	diesel particulate matter
DTSC	Department of Toxic Substance Control
EA/FONSI	Environmental Assessment with Finding of No Significant Impact
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Administration
FTA	Federal Transit Administration
General Plan	<i>Sacramento 2035 General Plan</i>
GHG	greenhouse gases
GIS	geographical information system

ACRONYMS AND ABBREVIATIONS

IS	Initial Study
Ldn	day-night sound level
LOS	level of service
MM	Mitigation Measure
MRZ-1	Mineral Resource Zone 1
MTP/SCS	<i>2012 SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy</i>
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NO ₂	nitrogen dioxide
NRHP	National Register of Historic Places
OCS	overhead contact system
PM ₁₀	particulate matter less than 10 micrometers in aerodynamic diameter
PM _{2.5}	particulate matter less than 2.5 micrometers in aerodynamic diameter
PRC	Public Resource Code
Project	Sacramento Valley Station Improvements Project
REA	Railway Express Agency
RPS	Renewables Portfolio Standard
RSHS	Raised Streets and Hollow Sidewalks
RT	Sacramento Regional Transit District
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SPRR	Southern Pacific Railroad (historical)
SSPRRS	Sacramento Southern Pacific Railroad Station
Station District	Southern Pacific Railroad Station District
State Water Board	California State Water Resources Control Board
Streetcar Project	Downtown-Riverfront Streetcar Project
SVS	Sacramento Valley Station
SWPPP	storm water pollution prevention plan
TPH	total petroleum hydrocarbon
TCR	tribal cultural resource
UAIC	United Auburn Indian Community of the Auburn Rancheria
UDP	Unanticipated Discovery Plan
UPRR	Union Pacific Railroad
USDOT	U.S. Department of Transportation

USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VOC	volatile organic compound
Youngdahl	Youngdahl Consulting Group, Inc.

Background Information

Project Title

Sacramento Valley Station Area Improvements Project

Lead Agency Name and Address

Sacramento Regional Transit District
1409 28th Street
P.O. Box 2110
Sacramento, CA 95812

Lead Agency Contact Person and Phone Number

Mr. Jeffrey P. Damon, AICP
Director, Long Range Planning
Sacramento Regional Transit District
(916) 556-0506

Project Location

The project is located in the vicinity of the Sacramento Valley Station (SVS), in the northwestern portion of downtown in the City of Sacramento, California (see Figure 1). The station is at 401 I Street and provides intermodal transportation services including Amtrak intercity rail, Capitol Corridor and San Joaquin Corridor regional rail, local light rail, and various private and public bus services. The project location also includes the new Railyards Station, located on the northeast side of 7th Street and Railyards Boulevard.

Project Sponsor's Name and Address

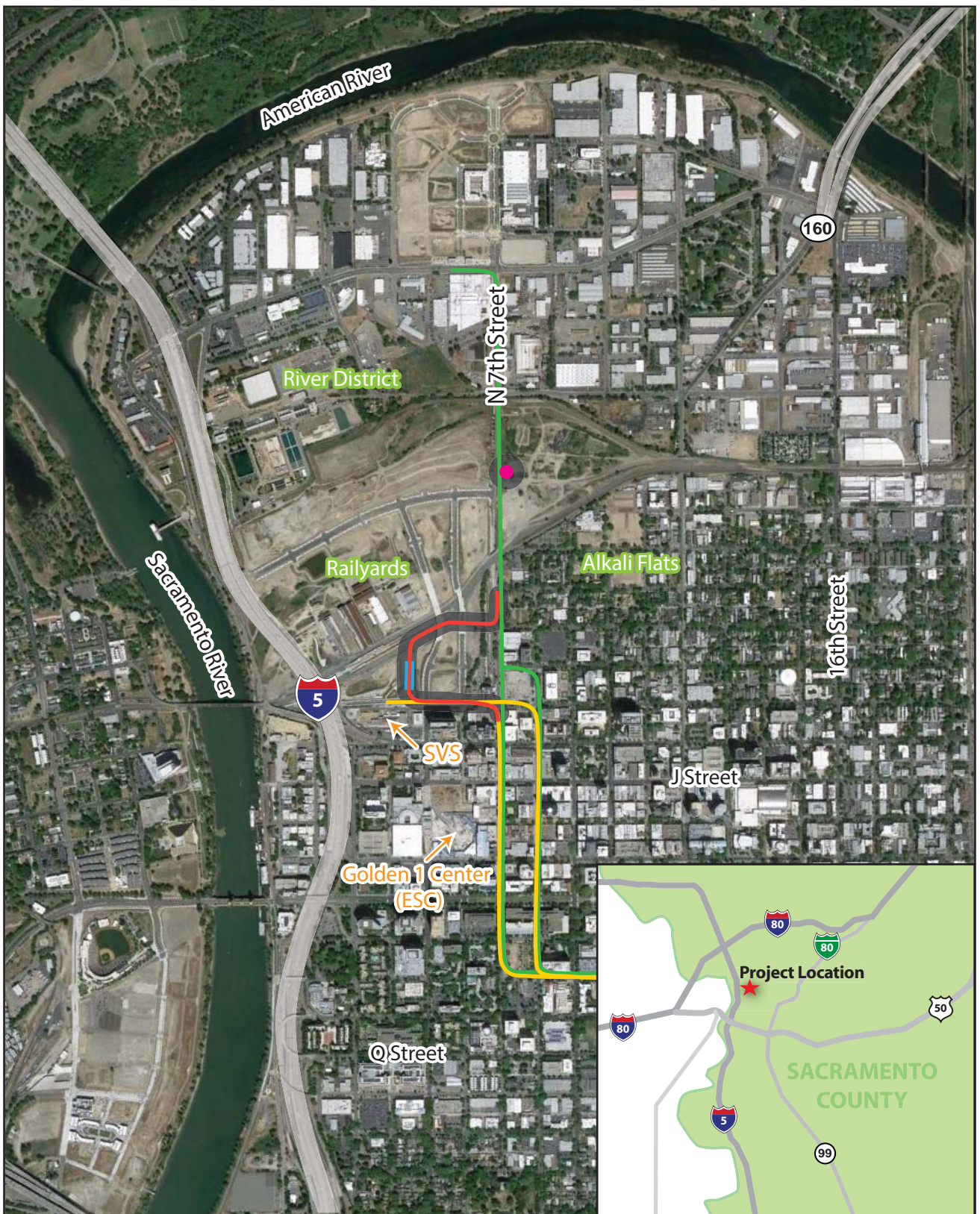
Same as Lead Agency.

General Plan Designation

The Land Use and Urban Form Diagram in the *Sacramento 2035 General Plan* (City of Sacramento, 2015) designates the project area as Urban Neighborhood High Density, Public/Quasi-Public, and Urban Center High Density.

Zoning

The SVS area is governed by the Railyards Specific Plan (City of Sacramento, 2007), which designates the SVS area as Transit Use. The proposed light rail Railyards Station along 7th Street is designated as Residential Mixed-Use.



Aerial Imagery courtesy of © Google Earth. Imagery Date: 06/17/2015

0 1,250 2,500
Approximate scale in feet



LEGEND

- Railyards Station
- New Light Rail Tracks
- New Light Rail Station Platform
- Existing Light Rail Green Line
- Existing Light Rail Gold Line

FIGURE 1
Project Area
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA

Introduction

The purpose of this Initial Study (IS) is to evaluate the potential environmental effects associated with implementation of the Sacramento Regional Transit District (RT) Sacramento Valley Station Area Improvements Project (project). In accordance with the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations [CCR], Section 15000 et seq.), this study includes a brief description of the project, a description of the environmental setting, identification and explanation of potential environmental impacts, a discussion of the significance of the impacts and proposed mitigation, and an analysis of the project's consistency with existing land use controls.

RT serves the Sacramento Valley Station (SVS) with the Gold Line light rail service and with Route 30 bus service. RT also operates the Green Line light rail service nearby on 7th Street; however, at this time, the Green Line does not directly serve the SVS. A key objective of the project is to extend Green Line service to the SVS, which would be accomplished by installation of a new "loop" track and station in the SVS area. This objective is consistent with RT's long-term plan for light rail service in the SVS area. Notably, RT included the loop track and station as part of the Locally Preferred Alternative for the Downtown-Natomas-Airport (now Green Line to the Airport) project adopted by the RT Board of Directors in December 2003. RT subsequently conducted a program-level CEQA Environmental Impact Report (EIR) on the Locally Preferred Alternative; the RT Board of Directors certified the EIR and approved the project in April 2008.

The first phase of the project, the Green Line to the River District, extended light rail service from downtown Sacramento to Township 9 in the River District and began operating on June 15, 2012.

The new loop track and station also provides other opportunities to optimize RT services at the SVS, including modifying the existing Gold Line service to share the SVS Station. In accomplishing these objectives, RT would do the following:

- Improve transit connections for RT bus and light rail transit services such as the Gold Line, Green Line, and RT buses
- Improve transit connections between RT facilities and other rail and bus facilities
- Facilitate the inclusion of the proposed Downtown-Riverfront Streetcar Project (Streetcar Project) into existing and future transit connections¹
- Support efforts by the City of Sacramento (City) to create a mixed use intermodal area with improved pedestrian and transit service

RT's improvements in the SVS area help support the City's long-term development program for that area. The first phase of the City's SVS program was completed in early 2013, with the relocation of the mainline Union Pacific Railroad (UPRR) heavy rail tracks and Amtrak passenger platforms from their former location, adjacent to the historical Southern Pacific Railroad Sacramento Depot (Depot), to a new location approximately 750 feet to the north. The City is currently implementing the second phase of its SVS program, the renovation of the Depot, which is expected to be completed in fall 2016. The City is now in the process of developing a comprehensive land use plan for the SVS area, which is expected to include new site development including commercial and office land uses, and additional vehicular access

¹ Although RT is a participant, the Streetcar Project is being led by the Sacramento Area Council of Governments (SACOG) and it is supported by the City of Sacramento, the City of West Sacramento, Yolo County Transportation District, California Department of Transportation, and RT. The Streetcar Project is separate from RT's SVS Improvements Project. The Streetcar Project is in the development phase of planning, and the *Environmental Assessment/Initial Study/Proposed Mitigated Negative Declaration, Downtown Riverfront Streetcar Project* (URS Corporation, 2015) was circulated for review from May 18 through June 16, 2015.

including bus terminal facilities and public parking. The City, together with other agency partners, conducted an environmental evaluation of its SVS program, including evaluation of the comprehensive land use plan at a programmatic level (U.S. Department of Transportation [USDOT] et al., 2009). The City's prior, program-level evaluation included RT's proposed loop track and station, which are evaluated at a project level in this study.

Funding for the project will come from state sources with local matching funds.

Project Description

2.1 Project Overview

The project includes the following elements that are evaluated in this IS:

- An approximately 0.5-mile-long, double-tracked, light rail transit loop, including track facilities to facilitate Gold Line trains turning back toward Folsom.
- An SVS Station along the transit loop tracks that would be oriented north–south and replace the existing Gold Line Station on H Street across from the Depot
- An electric bus charging station at existing RT bus berths on H Street
- A new Railyards Station on the east side of North 7th Street at Railyards Boulevard

2.2 Project Elements

2.2.1 Double-tracked Sacramento Valley Station Loop

Starting at 7th and H Streets, a second track would be constructed at grade, parallel to the existing single track, which is currently used for Gold Line service to the SVS. Between 6th Street and 7th Street, the new track would be constructed south of the existing track. Between 5th Street and 6th Street, the alignment would shift slightly to the north. West of 5th Street, the alignment would turn north into the relocated SVS station. North of the station the tracks would turn east into the proposed extension of F Street and cross under the new 5th and 6th Street overpasses to connect with the existing single track at 7th Street at F Street. The double-tracked SVS loop is shown on Figures 2-1a and 2-1b, with two station platform options described below. Engineering drawings showing the detailed plan view of the proposed alignments, with cross sections, are attached to this IS (see Appendixes A and B).

Track construction and use would be consistent with RT’s Light Rail Design Criteria, which includes technical criteria for horizontal and vertical alignments along straight sections and curves, subgrade and track structure requirements, provisions for safe operating speeds, and traction electrification standards. In the SVS area, all new tracks would be concrete embedded in the street or in the areas within the SVS. Required streetscape modifications, primarily along H Street and the future extension of F Street, would be finalized in collaboration with the City and adjacent property owners. The project would include signal modifications and traffic controls at street crossings and safety features for bicycles and pedestrians. A new pre-signal would be installed north of the 7th Street and F Street intersection to hold southbound traffic traveling on 7th Street, allowing Green Line trains to travel through the intersection.

The new track loop would include power poles with overhead contact system (OCS), similar to other light rail routes in Sacramento. The OCS used by RT in a downtown environment is a single electrical contact wire that can be used by light rail vehicles and by streetcars. On straight runs, OCS poles are placed approximately 100 to 150 feet apart. At the track curves, poles would be placed closer together and on either side of the curve. The OCS poles would be approximately 30 feet tall, with an overhead support structure approximately 14 feet wide, depending on the track spacing.

2.2.2 New Sacramento Valley Station Light Rail Station

In the section of the proposed loop where the proposed double tracks would be in a north–south orientation, RT would construct the SVS Station. In addition to serving the Green Line, the new station

would also serve the Gold Line, which would be rerouted to the new loop track. The new north-south station would be part of a larger intermodal transportation facility proposed by the City to enhance connections among Amtrak intercity rail service, RT light rail service and buses, City and regional bus routes, and a future High-Speed Rail station. There are two options for the station configuration:

1. The side-boarding platform option would construct a platform on both sides of the tracks, providing separate passenger access to northbound and southbound trains.
2. The center-boarding platform option would construct a single platform between the two track segments, allowing passenger access to northbound or southbound trains.

Walkway areas including hardscape and landscape features would connect the SVS, Amtrak access corridor, and H Street. Concepts for these pedestrian connections are shown on Figure 2-2a (side-boarding platform) and Figure 2-2b (center-boarding platform).

The SVS Station would comply with the Americans with Disabilities Act and RT station design criteria and safety standards. According to the Station Design Criteria, typical stations include the following:

- Passenger comfort features, such as canopies and seating
- Light fixtures and standards
- Security features, including surveillance cameras and emergency call boxes
- Kiosks with route maps and schedule information
- Direction signs
- Fare vending machines
- Trash receptacles

Station platforms would include ramps and boarding platforms for disabled passengers to use light rail services, including level boarding for future low-floor, light rail vehicles.

2.2.3 Bus Charging Station

An electric vehicle charging station would be installed near the existing RT Route 30 bus stop along the north side of H Street opposite the Depot (see Figures 2-1a and 2-1b). The charging station would be installed to accommodate future electric buses. The bus charging technology to be used has yet to be determined, but is likely to use either an overhead contact or underground wireless charging system.

2.2.4 Railyards Station at North 7th Street

The new Railyards Station would be constructed on the east side of the existing single-track alignment that runs north-south along 7th Street. The station would be located in the northeast quadrant of the Railyards Boulevard and 7th Street intersection (see Figure 2-3), and it would include a single, side-loading platform approximately 16 feet wide and 335 feet long. Station amenities and other details would be the same as previously described for the proposed SVS Station. Proposed development within the Railyards area would use this station. Pedestrians would use walkways that would be constructed by developers to access the station.

2.3 Project Construction and Phasing

Project construction would involve standard methods and materials. After completion of final design, acquisition of any required real estate, and selection of a construction contractor, the general construction sequence would be as follows:

1. Demolition of existing structures, which may include portions of the existing H Street curb, gutter, and sidewalk improvements, and portions of the original Amtrak station platforms and sheds. No existing buildings would be displaced.

2. Relocation of aboveground utilities, including traffic signals, and potentially the relocation of underground utilities in various undetermined locations along the track alignment.
3. Installation of underground utilities, including all electrical systems needed for traffic control systems at street crossings and electric bus charging station as well as underground pipes needed for drainage. This includes installation of foundations for poles supporting the overhead contact wires; each pole would require a shaft of up to 30 feet deep and would be backfilled with concrete.
4. Grading to create proper site elevations, primarily in the undeveloped portions of the SVS area. Given the recent site work, the amount of required grading is likely to be small. Track bed preparation would require excavation to a depth of approximately 36 inches.
5. Installation of trackwork along H Street and the SVS loop.
6. Installation of asphalt and concrete works including curbs, gutters, sidewalks, and pedestrian crossings. This includes all necessary paving for the new light rail stations.
7. Installation of aboveground electrical utilities to support light rail operations, including power poles and overhead contact wires. The project would not include installation of a new electrical substation.
8. Completion of all architectural features for passenger service at the new light rail stations.

These construction activities apply to all project elements, but it is possible that RT may phase some of the construction activities. At this time, it is expected that construction would occur in two or three distinct phases. The first phase is expected to include partially constructing the SVS loop track and portions of the new station to provide service on a single-track alignment. The second phase would add the second loop track and complete the SVS. Depending on funding agreements between RT, the City, and potentially others, full construction of the loop and station may occur at the same time. The third phase would construct the Railyards Station, which may be deferred to occur with development of the adjacent Railyards property. In addition to providing a purpose for the Railyards Station, adjacent development is needed to provide the connections to the station. Given the timeframe of related project developments, including the Streetcar Project, Railyards development, and the City's SVS program, it is expected that most construction activity would occur from 2017 to 2019.

2.4 Operations and Maintenance

2.4.1 Operations

After completion of the project, RT would modify operations to use the new facilities. The primary change in light rail operation would occur with the existing Green Line, which currently does not provide service to the SVS. With the SVS Station along the new loop track, the Green Line would change its alignment in this area to use the loop track and station. With the Green Line using this new alignment, the following segments of the existing route would no longer be used on a regular basis; however, it would be used on a short-term basis as needed (e.g., for temporary staging or temporary storage of disabled light rail vehicles, and as a bypass in case the U.S. Marshall Service needs to shut down H Street behind the federal courthouse):

- 7th Street between F Street and H Street
- 8th Street between G Street and H Street
- G Street between 7th Street and 8th Street

There are no existing Green Line stations on these segments, so there would be no loss of service. RT would modify the Green Line timetable to account for the new alignment and SVS Light Rail Station stop, but currently it is anticipated that existing service and headways would be maintained (e.g., trains would

continue to operate every 30 minutes). The Green Line timetable also would be modified to account for service to the new Railyards Station on 7th Street. The SVS Station also would be served by the Gold Line, which currently serves the SVS at the existing station. No changes to Gold Line service are expected (i.e., trains would continue to operate every 15 minutes). However, RT may need to make minor changes to the Gold Line timetable, because service along H Street and at the new SVS Light Rail Station would be shared with the Green Line.

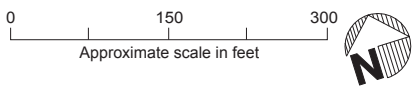
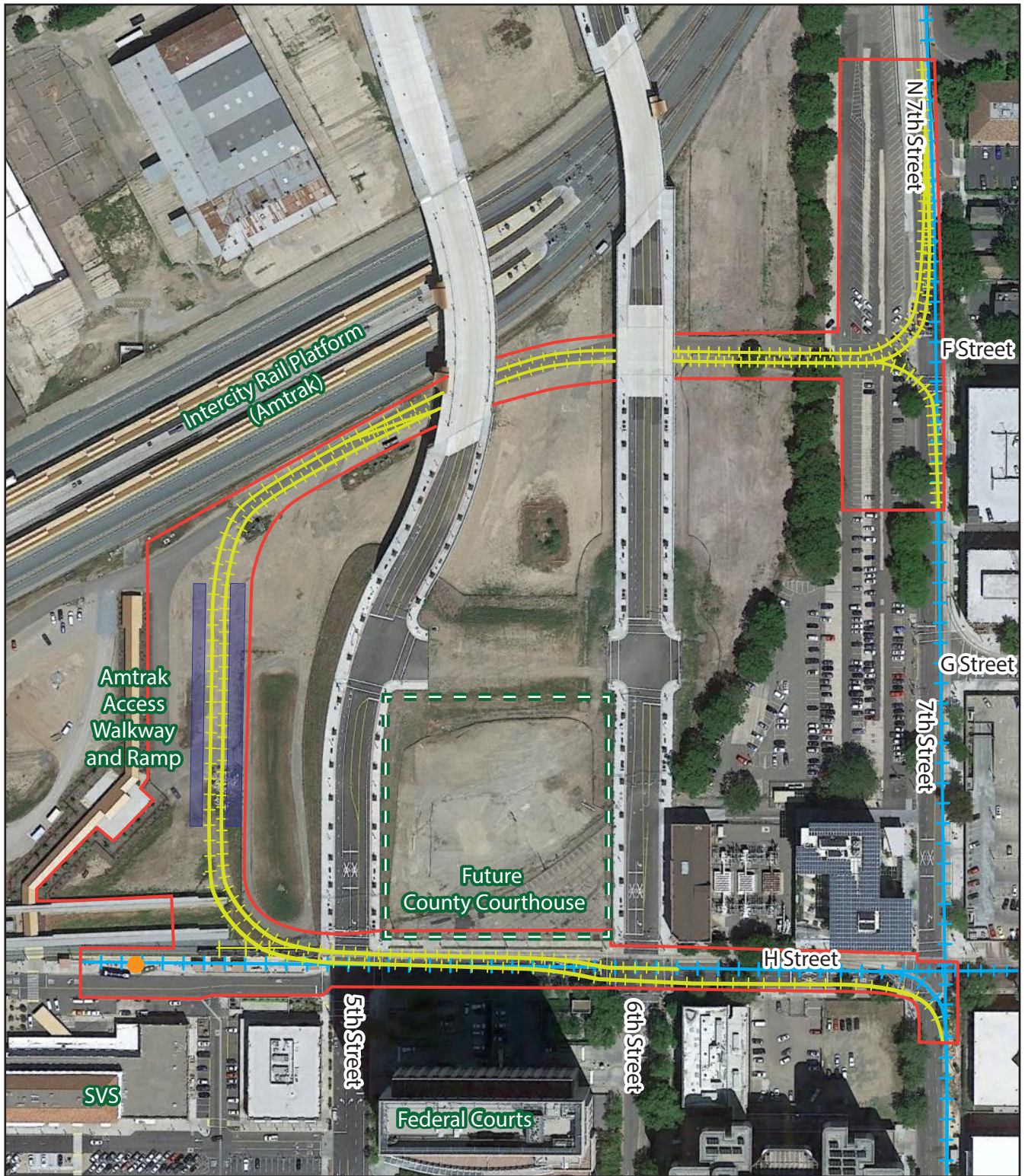
One of the project objectives is to accommodate the proposed Streetcar Project. Implementation of the Streetcar Project would introduce two additional services to the SVS area:

1. The Streetcar Project would operate east–west along H Street, using both the existing RT track and the proposed new track. The Streetcar Project would not use the SVS Station; rather, it would use a modified version of the existing Gold Line station.
2. The Streetcar Project also includes shifting the Blue Line light rail service from K Street to H Street between 7th Street and 12th Street. Blue Line service on H Street would not use the new loop track and SVS Station, but would interact with Green Line and Gold Line train movements at the intersections of 7th and H Streets and 8th and H Streets.

This IS recognizes the potential cumulative effects of the Streetcar Project improvements in the SVS area, but the specific impacts are evaluated in the Streetcar Project assessment (URS Corporation, 2015).

2.4.2 Maintenance

Maintenance of the new facilities would be consistent with general RT maintenance practices. Both new light rail stations would be maintained by regularly scheduled cleaning crews for services such as trash removal, with periodic steam cleaning, and similar intensive maintenance. Most station maintenance activities would occur at night or during off-peak hours. The new light rail tracks would require little maintenance, but would occasionally be repaired by maintenance-of-way equipment, such as rail grinders that remove irregularities from worn rail track.



Aerial Imagery courtesy of © Google Earth. Imagery Date: 06/17/2015

LEGEND






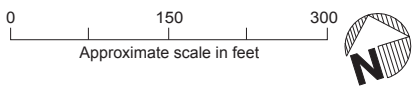
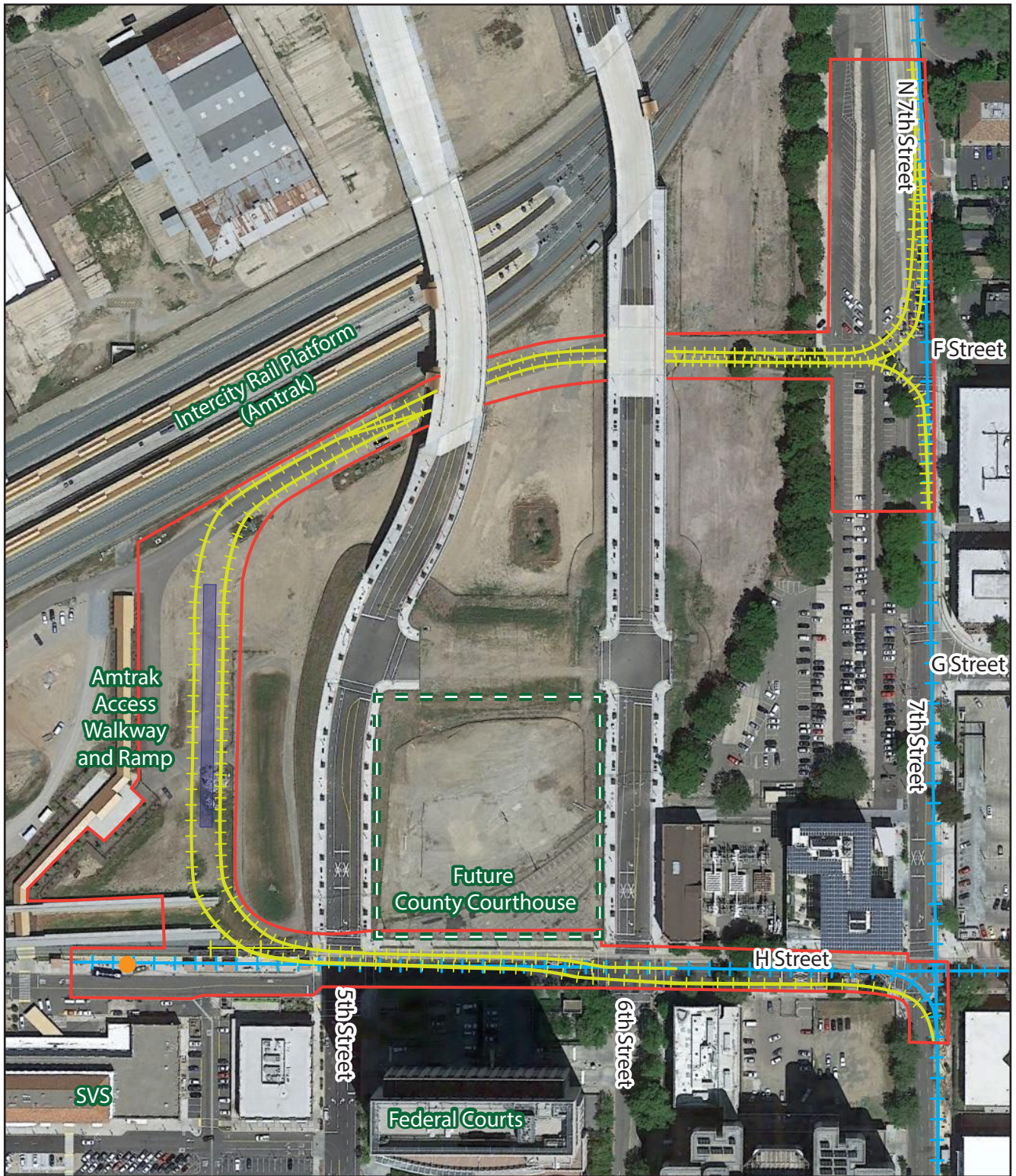
-  New Side Boarding Option
-  New Light Rail Tracks
-  Existing Light Rail Tracks
-  Bus Charging Station
-  Disturbance Area

FIGURE 2-1a
Sacramento Valley Station Improvements –
Side-boarding Station Option
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA



Aerial Imagery courtesy of © Google Earth. Imagery Date: 06/17/2015

LEGEND






-  New Side Boarding Option
-  New Light Rail Tracks
-  Existing Light Rail Tracks
-  Bus Charging Station
-  Disturbance Area

FIGURE 2-1b
Sacramento Valley Station Improvements –
Center-boarding Station Option
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA

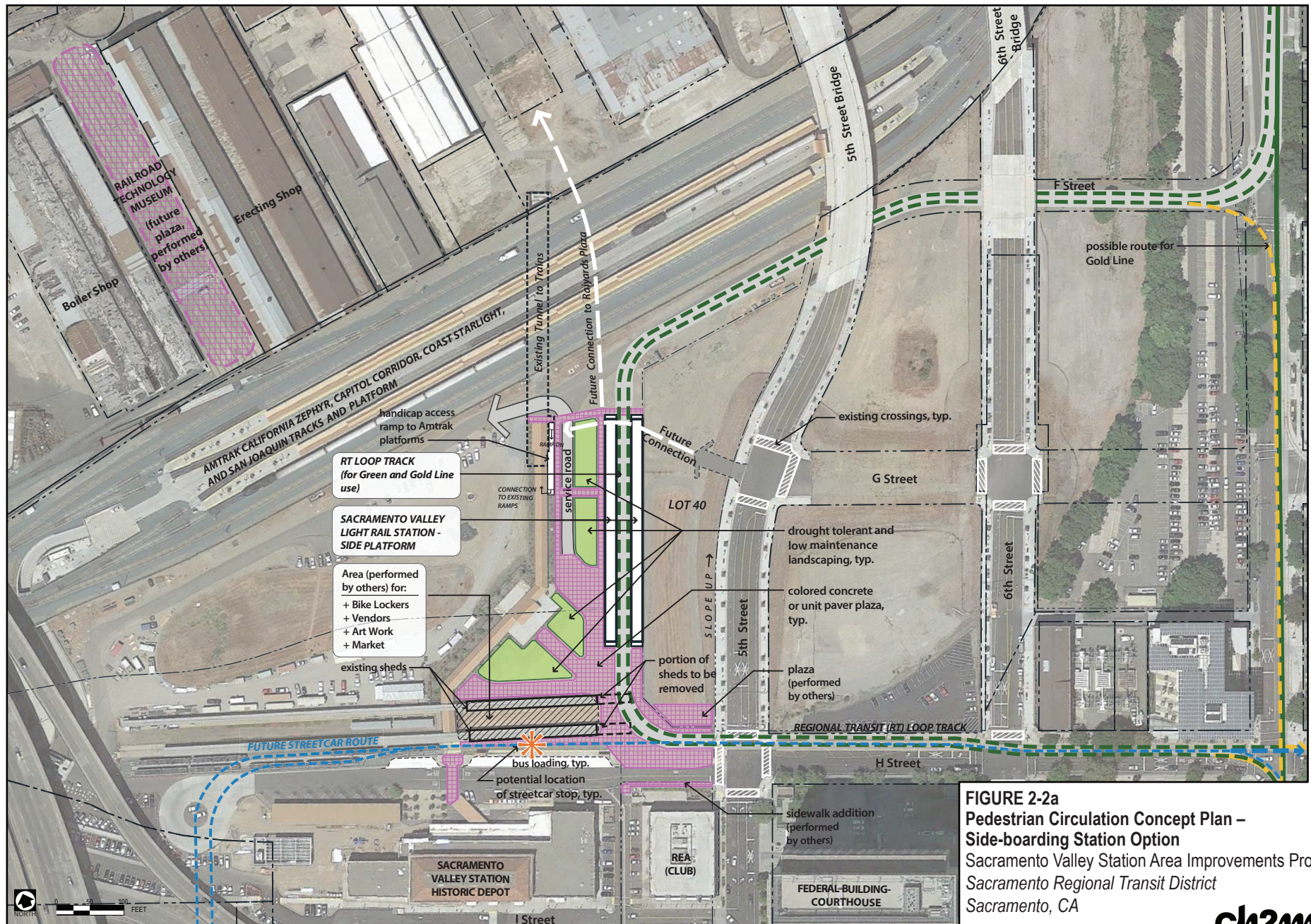


FIGURE 2-2a
Pedestrian Circulation Concept Plan –
Side-boarding Station Option
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA



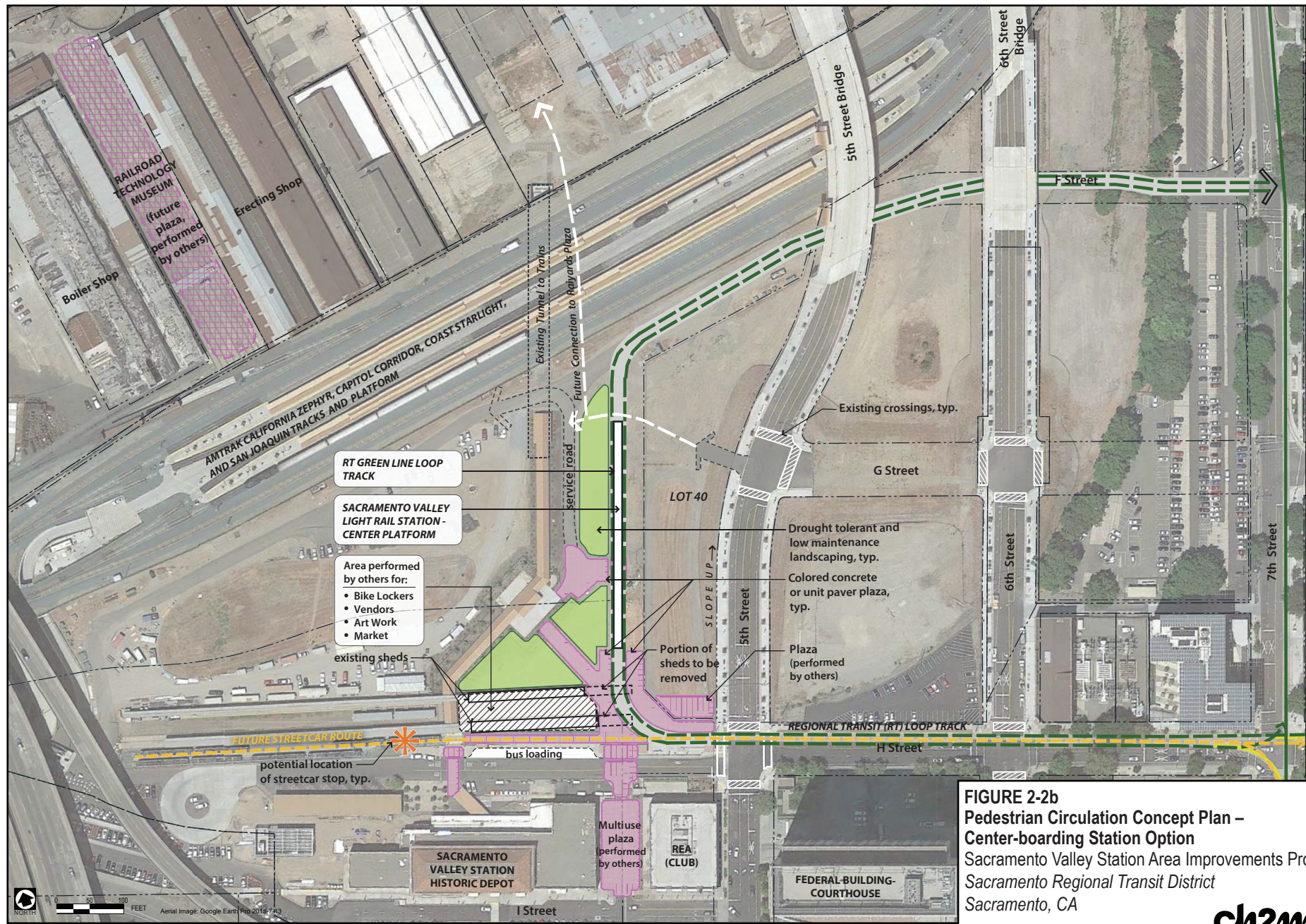
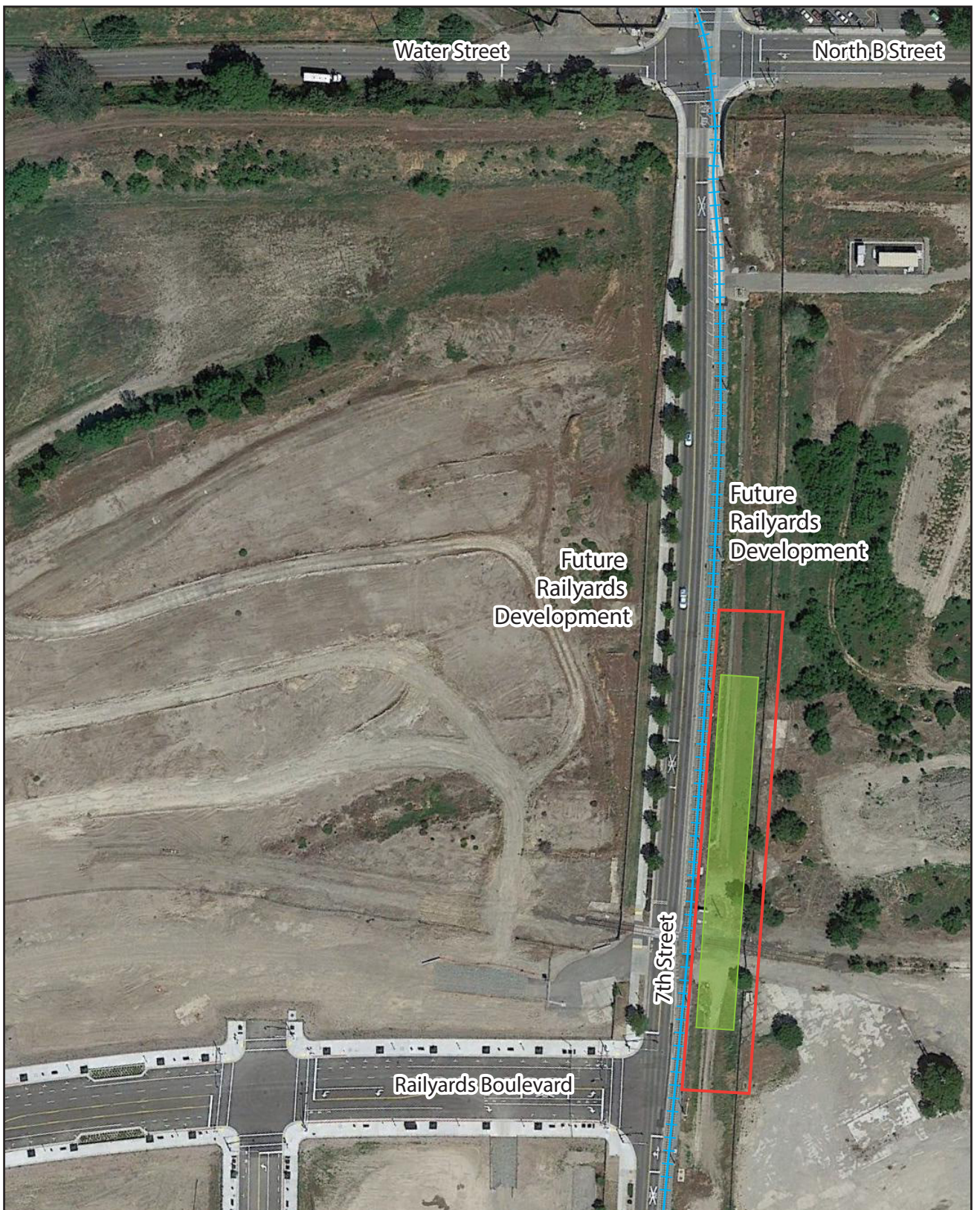


FIGURE 2-2b
Pedestrian Circulation Concept Plan –
Center-boarding Station Option
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA





0 225
Approximate scale in feet



LEGEND

- Railyards Station Platform
- Existing Light Rail Tracks
- Disturbance Area

Aerial Imagery courtesy of © Google Earth. Imagery Date: 06/17/2015

FIGURE 2-3
Railyards Station at 7th Street
 Sacramento Valley Station Area Improvements Project
 Sacramento Regional Transit District
 Sacramento, CA

Environmental Determination

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project; i.e., involve at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

3.2 Determination

Determination: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Title

Agency

Evaluation of Environmental Impacts

4.1 Aesthetics

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

4.1.1 Setting

The project area is located in the northwestern portion of downtown Sacramento. The SVS area (loop track, SVS station, and an electric bus charging station) is characterized by transit uses including Amtrak, light rail, and private and public bus services. A substantial portion of the site is undeveloped. The Railyards Station site is undeveloped, other than frontage improvements on the east side of North 7th Street.

The project area is generally level, consisting predominantly of graded, undeveloped areas bound by the existing light rail tracks along on H Street and the relocated commuter rail tracks about 500 feet to the north. Looking northward from the existing light rail tracks opposite the Depot, the viewshed is dominated by the undeveloped nature of the area, except for Interstate 5, which is elevated, to the west; the former platform canopies; the visually distinctive historic rail shops north of the relocated commuter rail tracks; and the newly constructed 5th and 6th streets, which rise northward from H Street to approximately 30 feet above ground to pass over the relocated commuter rail tracks. The sections of 5th and 6th north of H Street are completed but are blocked off until they are accepted by the City and ready to begin service. Looking southward from the existing light rail tracks opposite the Depot, the renovated Depot defines the central portion of the viewshed; surface parking lies to the west. The Railway Express Agency (REA) building immediately east of the Depot is a brick structure with an architectural style, massing, and height that complements the Depot. The 18-story federal courthouse defines the western edge of the viewshed.

4.1.2 Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. The project is not located adjacent to a scenic vista; therefore, there would be no impact.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

NO IMPACT. The project is not located within view of a state scenic highway; therefore, there would be no impact.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS-THAN-SIGNIFICANT IMPACT. Construction of the project would create temporary changes to the existing visual character in the area. The track loop and proposed station are adjacent to the Depot, which is the intended focal point of the visual character and quality for the City's SVS program. However, the area includes graded, undeveloped land. The blocked-off 5th and 6th streets contribute to the unfinished appearance of the area. Effects on viewers during construction of the project would be minimal because of the renovation of the Depot, other construction in the area, and the temporary nature of construction of the project.

The project is consistent with the City's SVS program and the Railyards Specific Plan. In addition, development of the SVS Station and the Railyards Station would comply with the development guidelines established by RT for their facilities. The project involves at-grade elements such as new trackwork, light rail stations, OCS, and an electric charging station; none of these involve structures of a scale, mass, or height that exceed the existing buildings or structures in the area. The project would not substantially degrade the existing visual character or quality of the surrounding area, which is defined by transit services, new elevated roads, and construction activities; therefore, impacts would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

NO IMPACT. The project would include lighting for pedestrian circulation and safety, the loading platforms, and passenger connections. The proposed lighting would be compatible with and similar to lighting along the commuter rail platforms and along the elevated 5th and 6th street overcrossings of the commuter rail tracks. The type and placement of lighting for the RT SVS improvements would be in accordance with Section 8.3.6 of the RT Design Criteria (Sacramento Regional Transit District, 2009), which states that lighting designs must minimize glare and light trespass into the adjacent neighborhoods. Therefore, there would be no impact.

4.2 Agriculture and Forest Resources

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

4.2.1 Setting

The project area is located in the northwestern portion of downtown Sacramento. The project area consists of undeveloped areas and urban uses, including transportation infrastructure, housing, and office buildings. The Land Use and Urban Form Diagram in the *Sacramento 2035 General Plan* (General Plan) (City, 2015) designates the project area as Urban Neighborhood High Density, Public/Quasi-Public, and Urban Center High Density. The SVS area is governed by the Railyards Specific Plan (City, 2007), which designates the area as Transit Use. The Railyards Station along 7th Street is designated as Residential Mixed-Use.

4.2.2 Impact Analysis

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

NO IMPACT. The project area is not located on land designated for agricultural use, as defined by the Farmland Mapping and Monitoring Program; therefore, there would be no impact.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. The project area is not located on land zoned for agriculture or under a Williamson Act contract; therefore, there would be no impact.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 1220(g)) or timberland (as defined in PRC section 4526)?

NO IMPACT. The project area is not located on land zoned for forest land or timber land; therefore, there would be no impact.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. The project area is not located on forest land or timber land; therefore, there would be no impact.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use?

NO IMPACT. The project would not involve other changes that could result in the conversion of farmland to non-agricultural use; therefore, there would be no impact.

4.3 Air Quality

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone (O ₃) precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3.1 Setting

The regulatory setting for air quality in California is overseen by federal, state, and local agencies. These agencies either have actual regulatory authority or are responsible for the development and implementation of programs and plans designed to reduce air pollution levels. The Clean Air Act (CAA) of 1970, as amended, serves as the legal basis for air quality policy and regulations at the federal level. Pursuant to the CAA, the U.S. Environmental Protection Agency (EPA) establishes and periodically updates National Ambient Air Quality Standards (NAAQS). The NAAQS represent the maximum allowable atmospheric concentrations for seven “criteria” pollutants: ozone, nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter less than 10 micrometers in aerodynamic diameter (PM₁₀), particulate matter less than 2.5 micrometers in aerodynamic diameter (PM_{2.5}), sulfur dioxide (SO₂), and lead.

At the state level, the California Air Resources Board (ARB) oversees California air quality policies and regulations. The ARB initially established California Ambient Air Quality Standards (CAAQS) in 1969. These state standards are generally more stringent and include four additional pollutants of concern in addition to those covered by the NAAQS: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates. A project must not result in air pollutant emissions that would cause or contribute to exceedances of the NAAQS or CAAQS.

The project area is located in the northwestern portion of downtown Sacramento, within the Sacramento Valley Air Basin. The project area consists of undeveloped areas and urban uses, including transportation infrastructure, housing, and office buildings. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local agency responsible for ensuring that federal and state ambient air quality standards are achieved and maintained.

The ARB and the local air districts operate ambient air quality monitoring stations throughout the state. An area is classified as being in “attainment” or “nonattainment” for air quality standards, on a pollutant-specific basis. An area that is designated nonattainment for a pollutant is subject to planning

requirements to attain the relevant standard. Maintenance areas are the former nonattainment areas that are now consistently meeting the NAAQS, and have been reclassified by EPA from "nonattainment" to "attainment with a maintenance plan." Attainment status of Sacramento County (County) is listed in Table 4-1. Under NAAQS, the County is in nonattainment for ozone and PM_{2.5}, and in maintenance for PM₁₀ and CO. Under CAAQS, the County is in nonattainment for ozone and PM₁₀.

Table 4-1. Attainment Status for Sacramento County

Pollutant	Federal Designation (NAAQS)	State Designation (CAAQS)
Ozone	Severe nonattainment	Nonattainment
CO	Maintenance	Unclassified
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
PM ₁₀	Maintenance	Nonattainment
PM _{2.5}	Moderate nonattainment (2006 standard)	Attainment
Lead	Attainment	Attainment
Sulfate	NA	Unclassified
Hydrogen Sulfide	NA	Unclassified
Visibility-reducing Particles	NA	Unclassified
Vinyl Chloride	NA	Unclassified

Note:

NA = not applicable

Sources: ARB, 2013 and EPA, 2015

4.3.2 Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS-THAN-SIGNIFICANT IMPACT. The following are the most recent air quality plans applicable to the County in response to federal planning requirements:

- *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (SMAQMD, 2008)*
- *PM₁₀ Implementation/Maintenance Plan and Redesignation Request for Sacramento County (SMAQMD, 2010)*
- *2004 Revision to the California State Implementation Plan for CO (ARB, 2004)*

The project is part of a long-term plan for the expansion and enhancement of public transit in downtown Sacramento. It is included in both the *2012 SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS)* (Sacramento Area Council of Governments [SACOG], 2012a), and the *General Plan (City, 2015)*. The specific project elements and other related changes to the SVS are identified in Appendix A-1 of the *2012 SACOG MTP/SCS Project Listings* (SACOG, 2012b). The MTP/SCS has been determined to conform to the state implementation plan for attaining the NAAQS; therefore, the project is consistent with the air quality plans of the region.

The project will be constructed in compliance with SMAQMD regulations and policies, and best management practices (BMP) will be implemented to reduce emissions from both construction and operation. In addition, as discussed below in response to question (b) and in Table 4-2, construction emissions would be below the SMAQMD CEQA significance thresholds. Operational emissions from the

project and the subsequent air quality impacts are expected to be minimal because the light rail is electrically powered, and no emission increases are expected from the light rail train movements. Therefore, the project would not have emissions at levels that would hinder or obstruct the implementation of the air quality plans.

Construction and operation of the project would be consistent with the regional and local air quality planning strategy; it would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, the impact would be less than significant.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS-THAN-SIGNIFICANT IMPACT. The project is not expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation during project construction or operation.

Construction of the project would include site preparation, grading, utility installation, station construction, track installation, and street improvements. Construction emissions are anticipated from the construction equipment, worker commutes, haul truck travel, and earthmoving activities. However, given that construction activities would be temporary (approximately 15 months), long-term impacts would not occur.

SMAQMD has adopted thresholds of significance for air quality impact analysis under CEQA, as presented in the *CEQA Guide to Air Quality Assessment in Sacramento County* (CEQA Guide) (SMAQMD, 2009), which has been updated through June 2015. Construction emissions from the project were estimated using CalEEMod (CAPCOA, 2013) using information on anticipated construction phasing, equipment usage, and number of vehicle trips.

The estimated construction emissions and the SMAQMD CEQA thresholds are shown in Table 4-2. Construction emissions of nitrogen oxide (NO_x), PM₁₀, and PM_{2.5} would be below the SMAQMD CEQA significance thresholds. In addition, the project would be constructed in compliance with the applicable SMAQMD regulations and policies, such as Rule 403 for fugitive dust control. Because the emissions would not exceed the SMAQMD thresholds and BMPs will be implemented during construction, emissions from project construction would have a less than significant impact on air quality.

Table 4-2. Project Construction Emissions

	VOC	CO	NO _x	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily (lb/day)	2.88	20.85	30.22	0.031	7.98	4.82
Maximum Annual (ton/year)	0.30	2.12	2.76	0.0036	0.43	0.28
SMAQMD CEQA Thresholds	None	None	85 lb/day	None	Zero (0). If all feasible BACT and BMPs are applied, then 80 lb/day and 14.6 tons/year	Zero (0). If all feasible BACT and BMPs are applied, then 82 lb/day and 15 tons/year

Notes:

The SMAQMD Board of Directors adopted air quality thresholds of significance for criteria pollutants on March 28, 2002, in resolution AQMD2002018.

BACT = best available control technology

lb/day = pounds per day

VOC = volatile organic compounds

Source: SMAQMD, 2009

Because the light rail is electrically powered, air pollution emissions from the light rail train movements are not expected during operation of the project. The project may result in small emission increases

because of routine maintenance activities for the rail stations, railcars, and tracks. However, emissions increases associated with these activities are expected to be minimal because of the short length of additional track, and they would be below the SMAQMD CEQA operational phase emission thresholds for NO_x (65 lb/day), VOC (65 lb/day), and PM₁₀ and PM_{2.5} (80 and 82 lb/day, respectively, with implementation of BMPs).

As part of the transit system improvement programs in the region, the project would improve the regional transportation network efficiency and help relieve traffic congestion on roadways. Improved traffic conditions are often associated with reduced vehicle emissions and are beneficial to air quality.

Because construction and operational emissions would be below the SMAQMD CEQA thresholds, the project is not expected to violate any air quality standard or contribute substantially to an existing or projected air quality violation during project operation. Therefore, the impact would be less than significant.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

LESS-THAN-SIGNIFICANT IMPACT. According to the CEQA Guide (SMAQMD, 2009), SMAQMD's approach to CEQA thresholds of significance is relevant to whether the project's individual emissions would result in a cumulatively considerable adverse contribution to existing air quality conditions in the Sacramento Valley Air Basin. If the project's emissions would be less than the significance thresholds, it would not be expected to result in a cumulatively considerable contribution to a significant cumulative air quality impact.

The project area is in nonattainment for ozone and PM_{2.5} under NAAQS, and in nonattainment for ozone and PM₁₀ under CAAQS. As shown in Table 4-2, the construction emissions of nonattainment pollutants (PM₁₀, PM_{2.5}, and ozone precursors [NO_x and VOC]), would not exceed the CEQA thresholds of significance set by SMAQMD.

As discussed previously in response to question (b) and in Table 4-2, emissions of the nonattainment pollutants (PM₁₀, PM_{2.5}, and ozone precursors [NO_x and VOC]) from project operation would be minimal and would not exceed the CEQA thresholds of significance set by SMAQMD.

Because the project emissions would be less than the CEQA thresholds, the project would not result in a cumulatively considerable contribution to a significant cumulative impact, according to the CEQA Guide. Therefore, the cumulative impact from the project construction and operation would be less than significant.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS-THAN-SIGNIFICANT IMPACT. As previously discussed for items (a) through (c), project construction emissions of criteria pollutants, including NO_x, CO, reactive organic gas, SO₂, PM₁₀, and PM_{2.5} would be temporary and would be below the CEQA thresholds; therefore, nearby receptors would not be exposed to substantial concentrations of criteria pollutants.

In addition to the criteria pollutants, project construction would also have the potential to emit toxic air contaminants. The main toxic air contaminants of concern is diesel particulate matter (DPM) from mobile sources, such as construction equipment and haul trucks. DPM is identified by California Office of Environmental Health Hazard Assessment as a carcinogen; it can also cause non-carcinogenic chronic health risks from long-term exposure. According to ARB, DPM emissions are responsible for about 70 percent of the total ambient air toxics health risk. The project area consists of undeveloped areas and urban uses, including transportation infrastructure, housing, and office buildings. Residential land uses in the project area include the Mercy Housing of California multifamily complex at 7th and H Streets and

several detached homes at 7th and F Streets. Exposures to the toxic air contaminant emissions from the construction activities would be limited to a sporadic construction activity during various project phases, such as demolition and installation of new roadway and track. Each construction phase is expected to require a limited number of diesel-powered construction vehicles and other equipment operating within the narrow construction corridor. In addition, all construction equipment must be certified for use in California in accordance with ARB requirements for diesel engines. Long-term exposures to carcinogenic air toxics such as DPM would not occur. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations during construction. The project would have less-than-significant impacts on the nearby sensitive receptors during construction.

Operation of electric-powered light rail vehicles would not generate pollutants, including toxic air contaminants. Operational effects near residences would be limited to occasional use of maintenance equipment. Therefore, there would be no impact during operations.

e. Would the project create objectionable odors affecting a substantial number of people?

LESS-THAN-SIGNIFICANT IMPACT. Diesel construction equipment during project construction may generate minor odors near the equipment. Construction emissions would be temporary and are not expected to create objectionable odors affecting a substantial number of people. Because the light rail is electric powered, operation of the project would not emit odorous compounds. Therefore, impacts would be less than significant.

4.4 Biological Resources

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local or regional habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Setting

The project is within a highly developed area in northern Sacramento, approximately 2,500 feet east of the Sacramento River. The project area has been extensively disturbed by past and ongoing transportation, commercial, and industrial activities, as well as soil remediation work. Most of the land within the project area consists of undeveloped areas and urban uses, including transportation infrastructure, housing, and office buildings. Undeveloped lands can be characterized as vacant and barren with scattered patches of ruderal forbs and grasses. The eastern portion of the project area includes landscaped trees located along H Street and 7th Street. The soil profile within the project area is predominantly fill soil, ranging in elevation from 20 to 30 feet above mean sea level (USDOT et al., 2009). The information in the following sections is based on field surveys conducted by the California Department of Transportation (Caltrans) in 2008 and CH2M in 2015.

4.4.1.1 Vegetation

The dominant plant species within this area include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), yellow starthistle (*Centaurea solstitialis*), mustard (*Brassica* spp.), vetch (*Vicia* sp.), bindweed (*Convolvulus arvensis*), milk thistle (*Silybum marianum*), and tarweed (*Holocarpha* sp.). There are scattered landscaped trees throughout the eastern portion of the project area, including Fremont's cottonwood (*Populus fremontii*) and tree of heaven (*Ailanthus altissima*). Some of these trees are relatively small, multitrunked, resprouted saplings. Two elderberry (*Sambucus nigra* ssp. *caerulea*) shrubs were identified approximately 300 feet north of the intersection of 6th Street and H Street, in a fenced area protected from the adjacent landscaped vegetation and surrounding developments

(Caltrans, 2009a). Because of the fence, the shrubs could not be inspected for exit holes. All three shrubs were characterized by multiple stems with an average diameter of 3 inches.

4.4.1.2 Wildlife

Ruderal areas support wildlife species adapted to the nesting and foraging opportunities in urban areas, but wildlife abundance and diversity are generally low in these areas and restricted to birds and mammals. However, because of the proximity to the Sacramento River (2,500 feet to the west) and the American River (1 mile to the north), the project area provides somewhat greater wildlife habitat values than typical ruderal lands. Wildlife species that were observed or are expected to occur in the project area include western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), Brewer’s blackbird (*Euphagus cyanocephalus*), yellow-billed magpie (*Pica nuttalli*), house finch (*Carpodacus mexicanus*), house mouse (*Mus musculus*), black rat (*Ratus ratus*), house cat (*Felis catus*), black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), and skunk (*Mephitis mephitis*). Several bat roosts were observed under I-5 and the I Street on-ramp and a purple martin nest colony under the I Street on-ramp approximately 150 feet west of the project area (PBS&J/EIP, 2007).

4.4.1.3 Special Status Species

Plants. Plant species of concern include those listed by federal or state resource agencies and those identified as rare by the California Native Plant Society (CNPS). Based on a search of the CNPS inventory (CNPS, 2015) and California Natural Diversity Database (California Department of Fish and Wildlife [CDFW], 2015) inventories for the Sacramento West quadrangle and a review of literature and field surveys of the habitat types in the project area, special-status plant species have the potential to occur in the vicinity of the project. However, no special-status plant species have been observed within the project area, and visual observations of the site during past site visits and over the past decade indicate that the potential for plant species of concern is low (PBS&J/EIP, 2007). This conclusion is based on the lack of suitable habitat for sensitive plant species (e.g., absence of serpentine grassland, coastal prairie, chaparral, and vernal pools) and the disturbed nature of the project area. No special-status species were observed in the project area during the site visits, and none are expected because of the site’s habitat features.

Wildlife. Sensitive wildlife species are defined as follows: (1) animals listed as threatened or endangered by federal or state resource agencies; (2) animals identified as federal or state species of special concern; or (3) migratory birds, protected by the Migratory Bird Treaty Act and the California Fish and Game Code. The following special-status wildlife species were identified as occurring or potentially occurring within the project area: Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; Federally Threatened), Swainson’s hawk (*Buteo swainsonii*; State Threatened), white-tailed kite (*Elanus leucurus*; State Fully Protected), burrowing owl (*Athene cunicularia*; State Species of Special Concern), purple martin (*Progne subis*; State Species of Special Concern), pallid bat (*Antrozous pallidus*; State Species of Special Concern), and Townsend’s big-eared bat (*Corynorhinus townsendii*; State Candidate for Threatened Listing) (CDFW, 2015; U.S. Fish and Wildlife Service [USFWS], 2015).

4.4.1.4 City of Sacramento Tree Ordinance

The City defines its jurisdiction over trees generally as “any tree growing on a public street right-of-way” (Sacramento City Code 12.56.070). The project may require the removal of some trees along the F Street extension west of 7th Street, but the small trees in this area are not City street trees as defined by the Sacramento Municipal Code.

4.4.2 Impact Analysis

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

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.

Impacts on Special-status Plant Species. The project area was observed to contain unsuitable habitat for special-status plant species. The reconnaissance surveys were conducted during the blooming periods for all species, and none were observed within or adjacent to the site over the past decade (Caltrans, 2009a; PBS&J/EIP 2007). In addition, none of these species are known to be within or adjacent to the project area (CDFW, 2015).² Therefore, special-status plant species are presumed to be absent, and there would be no impact.

Impacts on Wildlife, Including Special-status Species. Several special-status wildlife species have the potential to occur within or adjacent to the project area. As discussed below, there is some potential for impacts on special-status species during project construction. Because the project would add new transit features to an urbanized area with extensive transportation infrastructure, there is no potential for new or substantially more severe wildlife impacts during project operations.

Protected migratory birds such as white-tailed kite and purple martin may occur within the project area as potential foragers during construction. Therefore, construction activities could result in significant impacts. Mitigation Measure (MM) BIO-1, including biological monitoring and establishing construction-free buffer zones, as described below, would be implemented during the nesting season (February through August) to protect these special-status birds and migratory birds covered by the Migratory Bird Treaty Act and the California Fish and Game Code that may nest or forage within the project area. With the implementation of MM BIO-1, impacts on migratory birds would be less than significant.

MM BIO-1 Preconstruction nesting surveys will be conducted by a qualified biologist before work begins during the nesting season (February 1 through August 31). Any nest found within 50 feet for songbirds and 300 feet for raptors of construction activities will be avoided by establishing a designated construction-free buffer zone around the nests until the nests are no longer active, as determined by a qualified biologist.

The Swainson's hawk has been recorded in the region along the Sacramento River, but suitable nesting habitat for this species on site is not present. Marginally suitable foraging habitat is present and is characterized by small prey populations. The project would not require work within potential nesting habitat or removal of contiguous riparian canopy. However, construction activities would occur within 0.5 mile of areas where Swainson's hawk nests have been recorded. With the implementation of MM BIO-2, impacts on Swainson's hawks would be less than significant.

MM BIO-2 Preconstruction surveys for Swainson's hawks will be conducted by a CDFW-approved biologist in accordance with the survey protocol outlined by the Swainson's Hawk Technical Advisory Committee (2000) before work begins. Any individuals found within 0.5 mile of the construction zone will be monitored regularly by a qualified biologist during the breeding season. The avoidance and minimization measures established by CDFW (2010) such as construction-free buffers, reporting requirements, and photographic documentation, as applicable,

² The California Natural Diversity Database (CDFW, 2015) was searched in September 2015 for all known reported special-status species occurrences within a 5-mile radius of the project site.

will be incorporated into the project if the preconstruction surveys determine that Swainson's hawks are present.

Burrowing owl has been recorded in the region in vacant lands dominated by disturbed vegetation similar to the project area. The project area supports marginal habitat, at best, for the burrowing owl, because it is characterized predominantly by vacant lands and lacks ground squirrel burrows. Signs of ground squirrel or burrowing owl activity were not observed during past field surveys (Caltrans, 2009a; PBS&J/EIP 2007); however, there is some potential for burrowing owls to be present during construction. MM BIO-3, including biological monitoring and establishing construction-free buffer zones, as described below, would be implemented during construction to protect this species if it occurs within the project area. With implementation of MM BIO-3, impacts on burrowing owls would be less than significant.

MM BIO-3 Preconstruction surveys for burrowing owls will be conducted 30 days before work begins by a qualified biologist. If occupied burrows are detected within 300 feet of construction activities, the construction may proceed. However, any occupied burrows found in the project area within 300 feet of construction activities will be avoided by establishing a designated construction-free buffer zone around the nests until the nests are no longer active, as determined by a qualified biologist.

Several bat species, including the pallid bat and Townsend's big-eared bat, may forage on the project area year-round or during migration. Trees within and adjacent to the project area provide potential nesting habitat for many bat species. Bats may be particularly vulnerable during project construction activities that require tree removal during the winter hibernation period (mid-October through the end of February) or during the maternity season (mid-April through the end of August). With implementation of MM BIO-4, impacts on bats would be less than significant.

MM BIO-4 Preconstruction surveys for bats will be conducted by a qualified biologist 30 days before work begins. If day roosts are not detected within 300 feet of construction activities, construction may proceed. However, any day roosts found within 300 feet of construction activities will be avoided by establishing a designated construction-free buffer zone around the roosts until the roosts are no longer active, as determined by a qualified biologist.

The valley elderberry longhorn beetle has been recorded in the region, and suitable habitat for this species is approximately 300 feet from the southern portion of the project area. Complete avoidance would require a 100-foot setback from the dripline of elderberry shrubs with a minimum of 20 feet allowed where encroachment has been approved by the USFWS (1997 and 1999). The two elderberry shrubs in the project area are more than 100 feet away from proposed construction footprint and would be avoided. Therefore, the project would avoid direct and indirect impacts on elderberry shrubs and have no impact on valley elderberry longhorn beetle or its habitat.

Wildlife using the Sacramento River corridor in and around the project area are likely tolerant to levels of disturbance typically associated with freeway traffic along I-5, roadways such as 7th Street, and surrounding commercial and residential development. The visual and acoustic disturbance to wildlife associated with the project is not expected to be significantly higher than what currently exists, and wildlife along the river and in the surrounding areas are expected to habituate to new levels of disturbance. Therefore, impacts would be less than significant.

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

NO IMPACT. Riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS do not occur within the project area; therefore, there would be no impact.

- c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

NO IMPACT. Federally protected wetlands, as defined by Section 404 of the Clean Water Act, do not occur within the project area. Therefore, there would be no impact.

- d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

NO IMPACT. The project area does not support native habitats, native wildlife nursery sites, or serve as a wildlife corridor for resident or migratory species. Therefore, there would be no impact.

- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

NO IMPACT. The project may require the removal of some trees along the F Street extension west of 7th Street, but the small trees in this area are not City street trees as defined by the Sacramento Municipal Code. Therefore, there would be no impact.

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

NO IMPACT. The project area is not within a known or proposed conservation plan area; therefore, there would be no impact.

4.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.5.1 Setting

4.5.1.1 Disturbance Area

The disturbance area, as it pertains to both archaeological and historic architectural resources, comprises all areas of the project footprint where project implementation could result in direct impacts on cultural resources. Figures 2-1a and 2-1b depict all areas that would be physically affected by the improvements described in Section 2, Project Description. Because the project would not alter the physical setting of the project area by introducing intrusive elements or other features that could adversely affect neighboring historic properties (i.e., installation of tracks, light rail stations, pedestrian circulation improvements, and electric charging stations, all of which are generally small in scale and massing), indirect impacts on cultural resources are not anticipated. Figures 2-1a and 2-1b show that the disturbance area occurs within the public rights-of-way of both 7th Street and H Street and across a City-owned portion of the Railyards area.

The vertical extent of the disturbance area is based on the maximum depth of construction-related soil disturbance. Ground-disturbing activities would include the installation of the tracks and associated OCS within the right-of-way. Typically, excavations of no more than 2 to 3 feet below the ground surface are required for the setting of the tracks unless unsuitable material is removed to prepare the track bed. The OCS pole foundations typically range from 2 to 3 feet in diameter and require drilling a shaft up to 30 feet below ground surface (bgs). The proposed bus electric charging stations could be supplied with an overhead system or possibly from an underground vault that could extend 10 feet bgs.

Although the maximum vertical extent of the disturbance area would extend from the current ground surface to a maximum depth of 30 feet bgs, disturbance to this depth would be limited to an estimated 26 borings for the installation of the OCS poles. With the exception of the pole locations and the potential underground vault, the vertical disturbance area for the majority of the project would range from 2 to 3 feet bgs.

At the current stage of design, the exact location of the OCS poles is undetermined; however, they are typically spaced about 100 feet apart. Furthermore, the underground vault for the electric bus charging

station is an option; depending on the vendor, potential impacts, and costs, the charging stations may be powered using an aboveground or overhead system.

4.5.1.2 Cultural Resources Context and Overview

Prehistoric and Ethnographic Context. The archaeology of the County is included within the broad framework established by archaeologists for the Sacramento Valley. Although human occupation may extend back 10,000 years or more, reliable evidence of such an early human presence is lacking. Early archaeological sites bearing evidence of Paleo-Indian populations may be present in the Sacramento Valley but likely are buried deep under the alluvium (Moratto, 1984). The following summary of the prehistoric cultural sequence is primarily from Rosenthal et al. (2007).

The Paleo-Indian Period (12,000 to 8,000 Before Present [B.P.]) saw the first demonstrated entry and spread of humans into California. Known sites are situated along lake shores, and a developed milling tool technology may have existed at this time. The social units were not heavily dependent on exchange of resources, with exchange activities occurring on an ad hoc, individual basis. Most resources were acquired when the group changed habitats. Characteristic artifacts include fluted projectile points and chipped stone crescents. Traditionally, Paleo-Indians were viewed as exclusive big-game hunters. However, more recent research suggests that they pursued much more varied subsistence and economic systems than previously thought possible.

The beginning of the Lower Archaic Period (8,000 to 5,000 B.P.) coincides with that of the middle Holocene climatic change to generally drier conditions that brought about the drying up of the pluvial lakes. Subsistence appears to have been focused on the consumption of plant foods more than those obtained by hunting. Settlement appears to have been semi-sedentary, with little emphasis on wealth. Most tools were manufactured from local materials, and exchange remained on an ad hoc basis. Distinctive artifact types are large dart points, the milling slab, and handstones.

The Middle Archaic Period (5,000 to 3,000 B.P.) began at the end of mid-Holocene climatic conditions, when the climate became similar to present-day conditions. Cultural change primarily occurred in response to environmental technological factors. Economies became more diversified, possibly with the introduction of acorn technology. Hunting remained an important source of food. Sedentism appears to have more fully developed, and a general population growth and expansion occurred. Little evidence exists for development of regularized exchange relations. Artifacts diagnostic of this period include the bowl mortar and pestle, the first documented use of these implements, and the continued use of large projectile points.

Growth of sociopolitical complexity marks the Upper Archaic Period (3,000 to 1,500 B.P.). The development of status distinctions based on wealth is well documented. Group-oriented religions emerged and may have been the origins of the Kuksu religious system at the end of the period. Greater complexity of exchange systems occurred, with evidence of regular, sustained exchanges between groups. Shell beads gained in significance, as possible indicators of personal status and important trade items. This period retained the large dart points in different styles, but the bowl mortar and pestle replaced the milling stone and handstone throughout most of the state.

Several technological and social changes distinguish the Emergent Period (1,500 to 200 B.P.). The bow and arrow were introduced, ultimately replacing the dart and atlatl. Territorial boundaries between groups became well established and may closely resemble those documented in the ethnographic literature. It became increasingly common for distinctions in an individual's social status to be linked to acquired wealth. Exchange of

goods between groups became more regularized with more material, including raw materials, entering into the exchange networks. In the latter portion of this period (500 to 200 B.P.), exchange relations become highly regularized and sophisticated. The clam disk bead became a monetary unit for exchange, and increasing quantities of goods moved greater distances. Specialists arose to govern various aspects of production and exchange. During the latter decades of this period, large-scale Euro-American-related impacts on Native American groups took place.

The Nisenan, or Southern Maidu, and the Plains Miwok occupied the area that encompasses the project area. The Nisenan territory included the drainages of the Yuba, Bear, and American rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. According to Bennyhoff (1977), the southern boundary of the Miwok was probably a few miles south of the American River, bordering a shared area used by both Miwok and Nisenan groups that extended to the Cosumnes River.

In the Sacramento Valley, the tribelet, consisting of a primary village and a few satellite villages, served as the basic political unit (Moratto, 1984). Valley Nisenan territory was divided into three tribelet areas, each populated by several large villages (Wilson and Towne, 1978), generally located on low, natural rises along streams and rivers or on slopes with a southern exposure.

Euro-American contact with the native cultures began with infrequent excursions by Spanish explorers and Hudson's Bay Company trappers, traveling through the Sacramento and San Joaquin valleys in the early 1800s. In general, indigenous lifeways remained stable for centuries until the early to middle decades of the nineteenth century. With the coming of Russian trappers and Spanish missionaries, cultural patterns began to be disrupted as social structures within and among groups were stressed. An estimated 75 percent of the Valley Nisenan population died in a malaria epidemic in 1833. With the influx of Europeans during the Gold Rush era, the native population was further reduced as a result of disease and violent relations with the miners. However, today the Nisenan and Miwok are reinvesting in their traditional culture; through newfound political, economic, and social influence; they now constitute a growing and thriving native community in California.

Historic Context. The historic context is in large part summarized from the *Railyards Specific Plan Draft Environmental Impact Report* (PBS&J/EIP, 2007) and *Historical Resources Evaluation Report for the Sacramento Intermodal Transportation Facility* (ICF Jones & Stokes, 2008):

Early Exploration and Settlement. Early exploration of California's interior began in the early 1800s, starting with the Spaniards. Lieutenant Gabriel Moraga and Spanish soldiers from Mission San Jose are credited with being the first to enter the Sacramento Valley circa 1808. They were followed by other explorers including Jedediah Smith who passed through the region with fellow fur-trappers by the 1820s. In 1839, John Sutter, a Swiss emigrant, arrived in the Sacramento area and established Sutter's Fort on land the Mexican government granted him. Within a short time, and throughout the 1840s, Sutter's Fort was a destination for immigrants traveling to northern California from Oregon and points east, serving as a trading post and a place of refuge.

The ranch and farmland on the California frontier had dwindled by the 1830s, leaving the agrarian way of life in crisis and many people living in rural settings facing bleak futures. However, the Gold Rush, which began early in 1848 and extended through the early 1850s, forever changed the demographic composition of California as thousands of people flooded into the state to seek their fortune. During this period, the newly-established town of Sacramento was bustling. Despite experiencing several devastating floods, over the next few

decades, Sacramento made the transition from a Gold Rush boomtown to a stable commercial, industrial, and social center. Two decades later, Sacramento was extolled for its strengths as the railroad center of the state.

Early Development of the Central Pacific Railroad. In the mid-nineteenth century, the Sacramento River was the main supply route for the growing population of the City. However, the absence of a railroad system connecting the Sacramento Valley to points east slowed exchange relationships with eastern markets. In an effort to remedy the situation, Colonel Charles Wilson filed incorporation papers in 1852 for the Sacramento Valley Railroad and he called upon budding engineer Theodore Judah to work on the new rail project. Upon successful completion of the railroad, Judah moved on to survey the central Sierra Nevada and sought funding for his transcontinental connection project. To that end, the engineer courted a group of prominent Sacramento businessmen: Leland Stanford, Charles Crocker, Mark Hopkins, and C. P. Huntington. With financial backing from the Big Four, the Central Pacific Railroad (CPRR) incorporated in 1861.

The CPRR broke ground for the California portion of the Transcontinental Railroad in Sacramento in January 1863. In 1869 the CPRR and UPRR companies met in Promontory, Utah and celebrated the completion of the Transcontinental Railroad. In February 1885, the CPRR and the SPRR combined operations under a holding company called the Southern Pacific Co. Later that year, the SPRR took over all operations of the CPRR.

The years 1869–1888 were productive years for SPRR railyard workers in Sacramento. Over a ten year period, the SPRR completely filled in the former China Slough (Sutter Lake) in downtown Sacramento and established the Central Pacific-Southern Pacific Railyard. The railyard expanded through the 1930s becoming the busiest in the nation. However, post-World War II rail activity came to a head, and the company constructed few new buildings on the site between 1945 and 1955. Following the war, shop crews erected a small number of structures in the 1960s and 1970s, primarily designed to meet temporary shop needs. In 1996 SPRR merged with UPRR. Ten years later, in 2006, as rail usage declined throughout the United States, the Sacramento Railyards were closed.

Southern Pacific Railroad Sacramento Depot. Rail service activity increased in Sacramento into the early twentieth century. In 1925, SPRR moved forward on the construction of a depot and associated parcel and freight (Railway Express Agency) building on the site formerly known as China Slough. The existing passenger station at 401 I Street was the fourth built by CPRR/SPRR. CPRR built the first depot in 1864 on Front Street between J and K Streets. UPRR built the second and third depots in the same location in 1868 and 1879. The third depot served the company until SPRR constructed the existing depot in 1925. The San Francisco architectural firm of Bliss and Faville designed the building, and Davison and Nichol森 of San Francisco were the general contractors.

The Depot terminal served as a major transportation center in the west for both passenger and freight service. By the mid-1920s, 86 trains passed through the facility on a daily basis, including 64 passenger trains and 22 freight trains. The Depot remained an integral part of Northern California’s rail system throughout the twentieth century and remains one of the busiest stations in the country. Following the establishment of Amtrak in 1971, the new rail company occupied the depot although it continues to be owned by SPRR.

4.5.1.3 Inventory Methods and Results

Cultural resources in the project area were identified through (1) a records search, (2) a review of applicable previous documentation, and (3) Native American consultations. Field surveys were not

performed because the project area and surrounding vicinity have been previously inventoried for cultural resources (as described below).

Records Search. On September 29, 2015 and January 13, 2016, AECOM conducted a records search of ethnographic and historic literature and maps; federal, state, and local inventories of historic properties; archaeological base maps and site records; and survey reports on file at the North Central Information Center (NCIC). The NCIC is a regional clearinghouse of the California Historical Resources Information System, which is administered and coordinated by the California Office of Historic Preservation. The purpose of the records search was to (1) determine if portions of the project area have been previously inventoried for cultural resources (both archaeology and historic architecture); (2) determine if cultural resources have been recorded in or adjacent to the disturbance area; and (3) assess the likelihood for unrecorded cultural resources to be present within the disturbance area.

The records search revealed that the disturbance area as well as much of the surrounding area has been previously investigated for archaeological and historic architectural resources. The initial search determined that 84 studies were previously conducted within 0.5 mile of the disturbance area. Because of the large number of previous studies, the records search radius was reduced to 1/16th mile to more accurately identify the studies and resources most relevant to the project. Ten studies have been conducted previously within the 1/16th mile search radius; 5 of the 10 investigations included all or portions of the disturbance area (see Table 4-3). The remaining five previous investigations were all conducted outside of the disturbance area (see Table 4-4).

Table 4-3. Previous Cultural Investigations Conducted in All or Portions of the Disturbance Area

NCIC Report No.	Report Title	Author	Date
3335	<i>Southern Pacific Railyards Existing Conditions Report: Archaeology</i>	Praetzellis, A.	1999
8619	<i>Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California</i>	SWCA Environmental Consultants	2006
10121	<i>Rediscovering A Legacy: Archaeological Monitoring Report for the Sacramento Light Rail Extension Project, Regional Transit District</i>	Tremaine and Ferris.	2009
10553	<i>Richards Boulevard Area Architectural and Historical Property Survey</i>	Historic Environment Consultants	2000
10812	<i>Cultural Resources Inventory for the SMUD Station A Reconductor Project Sacramento County, California</i>	Pacific Legacy	2010

Source: NCIC, 2015

Table 4-4. Previous Cultural Investigations Conducted within the 1/16 Mile Search Radius but Outside the Disturbance Area

NCIC Report Number	Report Title	Author	Date
3363	<i>Historical Archaeology of an Overseas Chinese Community in Sacramento, California. Volume 1: Archaeological Excavations</i>	Praetzellis, A.	1997

Table 4-4. Previous Cultural Investigations Conducted within the 1/16 Mile Search Radius but Outside the Disturbance Area

NCIC Report Number	Report Title	Author	Date
3404	<i>Alkali Flat Redevelopment Area Determination for Inclusion in the National Register of Historic Places</i>	McGuire, P., K. Owens, S. Searcy, and J. West	1979
5804	<i>Historic Property Survey Report for the Sacramento Rail Depot Acquisition and Improvement Project</i>	Parsons Transportation Group, Inc.	2002
10449	<i>Historic Property Survey Report for the 4th Street and I Street Intersection Project, Sacramento, Sacramento County California</i>	Caltrans, District 3	2009b
10551	<i>Sacramento Valley Station</i>	Page & Turnbull	2010

Source: NCIC, 2015

The records search identified 425 previously recorded cultural resources within 0.5 mile of the disturbance area, the majority of which are historic structures. Within the 1/16th mile search radius there are 16 previously recorded cultural resources, of which two (P-34-002358 and P-34-002359) are located at least partially within the disturbance area (see Table 4-5). None of the identified resources occur within the disturbance area delineated for the Railyards Station (see Figure 2-3).

Table 4-5. Summary of Cultural Resources within 1/16 Mile Search Radius

Primary Number	Type	Description	NRHP/CRHR	Within Disturbance Area
P-34-001004-H	Historic	Sacramento Southern Pacific Railroad Depot	Eligible	No
P-34-001561	Historic	6th Street Levee ^a	Eligible	No
P-34-002325	Historic	Alkali Flat West Historic District	NRHP listed 1984 (#84000936)	No
P-34-002358	Multicomponent (prehistoric and historic)	Raised Streets and Hollow Sidewalks District	Eligible	Yes
P-34-002359 Also Feature RT-1 of P-34-002358	Prehistoric Archaeological Site	House Pit Site and Burials	Eligible	Yes

Table 4-5. Summary of Cultural Resources within 1/16 Mile Search Radius

Primary Number	Type	Description	NRHP/CRHR	Within Disturbance Area
P-34-002360 Also Feature RT-2 of P-34-002358	Historic Archaeological Site	Historic Trash Deposit	Eligible	No
P-34-002371	Historic	Sacramento Hall of Justice	NRHP Listed 1999 (#99001179)	No
P-34-002385	Historic	Anton Wagner Duplex	NRHP listed 1980 (#80000836)	No
P-34-002421	Historic	525-5 7th Street	Contributing	No
P-34-002742	Historic	707 E Street	Contributing	No
P-34-003292	Historic	Station A	Eligible; CRHR listed; California State L andmark No. 633-2	No
P-34-003309	Historic	728-30 E Street	—	No
P-34-003311 P-34-003677 ^b	Historic	719 F Street, rear	Contributing	No
P-34-003383	Historic	Building/African Methodist Episcopal Church	CRHR listed	No
P-34-003667	Historic	729-31 E Street; The Glenwood	—	No
P-34-003900	Historic	Site of the first and second state capitols in Sacramento	Historic marker	No

^a West of 7th Street, at F Street, the disturbance area passes through an area where the 6th Street Levee appears to have once extended. No portion of the levee occurs within the disturbance area.

^b The California Department of Parks and Recreation (DPR) forms for P-34-003311 and P-34-003677 depict the same structure.

Notes:

CRHR = California Register of Historical Resources

NRHP = National Register of Historic Places

Source: NCIC, 2015

Description of Previously Identified Cultural Resources. As shown in Table 4-5, the NCIC indicates that two previously identified cultural resources, P-34-002358 and P-34-002359 occur in the disturbance area. In addition, P-34-002359 is also considered a feature of P-34-002358. Each of these resources is described in the following sections.

P-34-002358: Raised Streets and Hollow Sidewalks Historic District. The Raised Streets and Hollow Sidewalks (RSHS) Historic District (P-34-002358) was originally identified by Tremaine and Ferris (2009) as Sacramento’s Buried Urban Landscape. Tremaine’s landscape was ultimately assimilated into Downey’s (2010) RSHS. The RSHS covers a portion of Sacramento approximately bounded by Front Street on the west, 11th Street on the east, I Street to the north, and L Street to the south. This area encompasses those city blocks that were raised in the 1860s and 1870s in response to years of severe flooding. The raising of the streets buried the streetscape of the earliest days of the city and resulted in the creation of an open, below-grade space currently referred to as the hollow sidewalks. The hollow sidewalks retain elements of storefronts, end walls, brick building walls, corbelled buttresses, and other architectural features directly below the existing sidewalks and streets of present-day Sacramento. Today’s streetscape in this area is often marked by cast iron and quartz skylights embedded in the modern day sidewalk.

The RSHS Historic District has been determined eligible for the NRHP “under Criterion A at the State level of significance in the areas of Social History, Politics and Government, and Commerce for its association with the efforts of Sacramento’s business leaders to deal with flooding in the 1860s so as to maintain a viable business district and create an environment that would support the presence of the state capital (Downey, 2010).” Under Criterion C, the district is eligible at the state level for its design and method of construction, and under Criterion D, for its potential to yield potential information about nineteenth century “vernacular design and construction of retaining walls and bulkheads” (Downey, 2010). Furthermore, the City has made a preliminary determination that RSHS Historic District is eligible as a historic resource for CEQA purposes during environmental review for projects they have sponsored.

The buried historic-era features of the urban landscape are contributing elements to the RSHS Historic District. Except for the hollow sidewalks and associated raised street earthworks, none of these resources have been determined eligible for the NRHP individually on their own merit (Tremaine and Ferris, 2009).

Although Sutter Lake/China Slough is a California State Historic Landmark, it is not an NRHP-eligible property. Buried elements associated with the RSHS Historic District include the following:

- Underground, or hollow, sidewalks, 1864–1876
- Redwood plank crosswalks
- Stacked streets dating from 1850 (including cobbled roads)
- Street rail track dating from 1870
- Early 20th century redwood conduit
- Mid-20th century concrete duct banks
- Brick sewer main, circa 1880
- Wood sewer dating to 1854
- Raised street earthworks, 1864–1876
- Sutter Lake/China Slough (State Historic Landmark No. 594)

Evidence of the cobblestone streets (as part of the stacked streets element) and street rail track have been discovered at depths as shallow as 2 feet below the current pavement along 7th and H Streets. The remaining elements are minimally 3 feet bgs, and most are below 8 feet bgs (Tremaine and Ferris, 2009).

P-34-002359: Pit House Site. P-34-002359 is a prehistoric archaeological site identified during monitoring conducted for the Gold Line extension (also referred to as the Amtrak-Folsom extension) (Tremaine and Ferris, 2009). The site consists of a large pit house (estimated at 20 meters in diameter) that has been interpreted as an assembly or dance house based on its size. In addition to this feature, two human burials, six cremations, hearth features, and an extensive artifact assemblage were also identified within the deposit. There are discrepancies in the site record; however, it appears that the site was identified at depths ranging from 2.2 to approximately 9.0 feet below current street level.

P-34-002359 has been determined to be individually eligible for the NRHP and a contributing element to the RSHS Historic District (Tremaine and Ferris, 2009).

P-34-002360: Trash Deposit. Geographical information system (GIS) information from the NCIC places P-34-002360, a Gold Rush-era trash deposit, within the disturbance area. According to the actual archaeological site record. However, the deposit, which was located during trenching for the Gold Line extension, is located over 100 feet south of the disturbance area. Furthermore, the resource is located between 5.0 and 8.5 feet below current street level (with the deeper extent of the deposit being towards the disturbance area). Ground disturbing construction on 7th Street would be limited to track installation only (3 feet maximum disturbance). As such, P-34-002360 is also below the limits of the vertical disturbance area.

Literature Review. In addition to the NCIC records search, a review of documents was performed that included confidential appendices of the Environmental Assessment with Finding of No Significant Impact (EA/FONSI) for the Sacramento Intermodal Transportation Facility (USDOT et al., 2009); the EIR for the Sacramento Railyard Specific Plan (PBS&J/EIP, 2007) and early administrative drafts of the Environmental Impact Statement/EIR prepared for the Downtown-Natomas-Airport corridor (now the Green Line to the Airport Project).

These environmental documents contain descriptions of a Sacramento Southern Pacific Railroad Station (SSPRRS) Historic District. Although NCIC documentation did not identify it as such, the EA/FONSI (USDOT et al., 2009) identifies the SSPRRS Historic District as P-34-1004; for consistency that convention is maintained in this IS.

The contributing elements of the SSPRRS Historic District according to the EA/FONSI (USDOT et al., 2009) include the Southern Pacific Railroad Sacramento Depot (Depot), the platform amenity structures, the UPRR tracks immediately north of the Depot passenger platform, and the REA Building, which is located directly east of the Depot. The SSPRRS Historic District is eligible for the NRHP under Criteria A and Criteria C for its association with events in local and national history and for its distinguished works of architecture.

4.5.1.4 Previously Unidentified Cultural Resources

Besides the known resources, there is the potential for the discovery of currently unknown prehistoric and historic archaeological remains and currently unrecorded components of the RSHS Historic District during the construction period. Current conditions were considered to evaluate the potential for exposing previously undiscovered cultural resources during project implementation. Although the disturbance area has undergone significant development that often results in the inadvertent damage and destruction of cultural resources, as demonstrated by Tremaine and Ferris (2009), numerous cultural resources lie buried beneath the streets of Sacramento including within the disturbance area. As such, the disturbance area must be considered to be of elevated sensitivity for containing previously unrecorded, buried cultural resources.

4.5.1.5 Native American Consultation

On September 21, 2015, AECOM, on behalf of RT, contacted the California Native American Heritage Commission (NAHC) to request a review of its Sacred Land Files and to receive a list of Native American tribal groups that the NAHC believes should be consulted in accordance with Assembly Bill 52. The NAHC responded on October 19, 2015; their review of the Sacred Land Files did not identify Native American cultural resources in the immediate project area. The NAHC also provided a list of tribal groups that could have an interest in the project area (see Table 4-6).

On November 9, 2015, AECOM mailed certified project notification letters to all tribal groups identified by the NAHC, providing a project description and inviting project consultation, in accordance with Assembly Bill 52, on behalf of RT. Follow-up phone calls were made and e-mails were sent on

December 30, 2015, to confirm receipt of the notifications, to inform tribes that they will receive a copy of this document notwithstanding consultation status, and to be advised on the tribes' intentions for consultation. As of January 5, 2015, two responses have been received, one from the United Auburn Indian Community of the Auburn Rancheria (UAIC) requesting consultation and the other from the Wilton Rancheria acknowledging receipt of the project information. AECOM is currently facilitating consultation meetings between RT and UAIC.

Table 4-6. Native American Heritage Commission Identified Contacts and Contact Efforts

Stakeholder	Contact	Date Letter Sent	Response to Letter	Follow Up Contact	Response
Shingle Springs Band of Miwok Indians	Nicolas Fonseca, Chairperson	11/09/15	No	12/30/15 Voice-mail message left	None.
Wilton Rancheria	Raymond Hitchcock, Chairperson	11/09/15	No	12/30/15 Voice-mail message left; e-mail sent	E-mail response from Mr. Hitchcock that he has forwarded project notification to his cultural resources staff.
Ione Band of Miwok Indians	Dr. Crystal Martinez, Chairperson	11/09/15	No	12/30/15 Voice-mail message left; e-mail sent	None.
Buena Vista Rancheria	Rhonda Morningstar Pope, Chairperson	11/09/15	No	12/30/15 Voice-mail inoperable; e-mail sent	None.
T'si-Akim Maidu	Don Ryberg, Chairperson	11/09/15	No	12/30/15 Because of re-routing of letter, a voice-mail left for Grayson Coney, Cultural Director of the T'si-Akim Maidu.	None.
United Auburn Indian Community of the Auburn Rancheria	Gene Whitehouse, Chairperson	11/09/15	Response received 12/28/2015 at L Street office designating Marcos Guerrero as UAIC contact	12/30/15 Voice-mail message left; e-mail sent to Mr. Guerrero	E-mail response from Tristan Evans confirming that UAIC are requesting consultation; AECOM is scheduling a consultation meeting for RT and UAIC.

4.5.1.6 Paleontological Context

The Railyards is underlain by fill material comprising river sand, coarse gravel, cobbles, and granite imported primarily from Rocklin. The fill also contains discarded railroad equipment, such as boilers and scrap metal. The depth of this fill material reportedly ranges from 30 to 50 feet bgs (PBS&J/EIP, 2007).

4.5.2 Impact Analysis

The California Code of Regulations, beginning with Section 15064.5(b), defines significant impacts for historical resources as follows and is used to respond to the checklist questions:

Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired; and the significance of a historical resource is materially impaired when a project does the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion on or eligibility for inclusion on the CRHR;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion on a local register of historical resources, pursuant to Section 5020.1(k) of the PRC, or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion on the CRHR as determined by a lead agency for purposes of CEQA.

a. **Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Under CEQA, a historical resource (including archaeological and historical architectural resources) is considered significant if it meets the criteria for listing in the CRHR set forth in CEQA §15064.5 and defined as significant any resource that:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
- Is associated with lives of persons important in our past
- Embodies the distinctive characteristics of a type, period, region, method of construction, or it represents the work of an important creative individual or possesses high artistic values
- Has yielded, or may be likely to yield, information important in prehistory or history

Resources listed in or formally determined to be eligible for listing in the NRHP are automatically listed in the CRHR and are considered historical resources for the purposes of CEQA compliance.

Baseline conditions for cultural resources within the project area have been previously described. Potential impacts on historical resource as defined in Section 15064.5 are described below.

P-34-001004: Sacramento Southern Pacific Railroad Station Historic District. Project construction would include the placement of new tracks within the SSPRRS Historic District. In addition, pedestrian connections and circulation in the new SVS Station would remove a portion of the eastern section of the existing platform canopy, which is a contributor the SSPRRS Historic District. The SSPRRS Historic District would be affected by the installation of this new track and the partial removal (approximately the easternmost 50 feet of the approximately existing 750 feet) of the canopy.

The new track would be embedded in the street and would not affect the existing viewshed, which has already been changed by ongoing City improvements. The new light rail tracks would not alter the

relationship or orientation of the Depot with respect to the REA building or the UPRR tracks. In addition, the majority of the platform and its amenities would remain in place and would not be altered by the loop track, the electric charging station, or pedestrian improvements. The retention of most of the platform and the other contributors would allow the SSPRRS Historic District to maintain its overall integrity, the spatial and functional relationship, and the ability to convey its historical significance as a major transportation hub in the region. Therefore, the project impact on the SSPRRS Historic District would be less than significant.

P-34-002358: Raised Streets and Hollow Sidewalks Historic District. Project construction within the RSHS Historic District would include the placement of new tracks, installation of OCS poles, and possibly placement of an underground vault for the electrical charging station. Although the alignment of the new track has been determined, the locations for the OCS poles and the need for an underground vault have not yet been determined.

Typically, excavations of no more than 2 to 3 feet bgs are required for the setting of the tracks unless unsuitable material is removed to prepare the track bed. As a result, the only elements of the RSHS Historic District that may be disturbed by the installation of new track are cobbled roads and historical streetcar rail track, which were previously identified at depths as shallow as 2 feet (Tremaine and Ferris, 2009). All other historical-era elements of the RSHS Historic District were identified below 3 feet bgs.

The OCS poles typically range from 2 to 3 feet in diameter and require drilling a shaft up to 30 feet bgs. Installation of OCS poles could potentially disturb all of the elements of the RSHS Historic District. Similarly, if ultimately deemed necessary, and depending on the placement at 10 feet bgs, the installation of the underground vault also has the potential to disturb elements of the RSHS Historic District. Disturbances to any elements comprising the RSHS Historic District would be a potentially significant impact requiring mitigation measures.

P-34-002359: Pit House Site. Within the vicinity of P-34-002359 the project would include the placement of new tracks and the installation of OCS poles. Tremaine and Ferris (2009) identified components of this resource at depths of between 2.2 and 9.0 feet bgs; therefore, the project has the potential to disturb this resource. As previously noted, P-34-002359 is also a contributing element of P-34-002358. Disturbance of this site would also represent a disturbance to a contributing element of the RSHS Historic District. Disturbance to P-34-002359 would be a potentially significant impact requiring mitigation measures.

Previously Unidentified Cultural Resources. The entire disturbance area should be considered to have elevated sensitivity for unidentified cultural resources. Project implementation anywhere within the disturbance area could result in the inadvertent exposure of previously unidentified cultural resources. The exposure of previously unknown archaeological resources would be a potentially significant impact requiring mitigation measures.

Implementation of the following mitigation measures would reduce impacts to a less-than-significant level. Therefore, impacts to known historical resources and currently unidentified cultural resources would be less than significant with mitigation.

MM CUL 1 Additional identification efforts will consist of further archival research and subsurface exploration to avoid impacts on historic properties. As the project design advances, additional archival research will be conducted to help identify specific locations in the disturbance area where contributing elements of the RSHS Historic District may exist. This research will target those areas of the design that coincide with known or likely below-grade hollow sidewalks or raised street structures. Preconstruction subsurface explorations will be conducted where construction is anticipated to approach the vertical limits of the disturbance area in areas sensitive for prehistoric and historical cultural resources.

RT will also coordinate with the City and property owners to obtain permission to access any remaining hollow sidewalk segments that are identified or suspected to exist in areas that could be affected by construction, particularly installation of OCS poles. If access is obtained and hollow sidewalks are present, the potentially affected hollow sidewalk segment(s) will be field recorded and the data collected will be added to the existing RSHS Historic District DPR 523 form (Downey, 2010), following the protocol described in an Unanticipated Discovery Plan (UDP) (see MM CUL 4). This recordation will capture data about the hollow sidewalks and raised streets that are not readily available and improve access to information about these historical resources. If access cannot be obtained, RT will use ground-penetrating radar or other means to confirm the presence or absence of hollow sidewalk segments in the construction footprint.

Should hollow sidewalks be identified in areas where OCS poles could potentially be installed, avoidance options will be implemented. These options include modifying the proposed OCS pole locations, modifying the pole foundation type, using a building attachment, or attaching span or pull-off wires to a backbone wire between two other poles or structures. The attachment of wires to adjacent buildings may require modification of the disturbance area to accommodate those buildings. No historical structures would be selected for wire attachment.

Furthermore, if research or field investigation confirms the presence of historical or prehistoric archaeological resources that are eligible for the CRHR, and that would be in conflict with project construction, RT will revisit the design to avoid adverse effects to historic properties.

MM CUL 2 All ground-disturbing activities will be monitored by a qualified archaeologist and, when appropriate, a Native American representative of any tribe that has been determined a consulting party to the project. If any prehistoric or historical-era resources are exposed during construction, work will stop in the immediate vicinity and be redirected to allow for recordation, including photography, measurements, and GIS) data. Field recordation data will be added to the existing RSHS Historic District DPR 523 form (Downey, 2010).

Monitors will be responsible for working with construction personnel and identifying cultural resources that may be uncovered during ground disturbance. If unanticipated cultural materials are unearthed, the monitor will have the authority to immediately halt work to allow the onsite archaeological monitor to inspect and assess the materials, determine whether additional analysis of the find is warranted, and whether construction can proceed without further analysis.

MM CUL 3 If cultural resources not identified by research or other investigations during the pre-construction period are inadvertently exposed during project construction, work will stop or be redirected within 50 feet of the find to allow for recordation, including photography, measurements, and GIS data in accordance with the UDP (see MM CUL 4).

If previously unidentified hollow sidewalk features or raised street structures are exposed, the field recordation data collected (e.g., photography, field measurements, and GIS data) will be added to the existing RSHS District DPR 523 form (Downey, 2010). This recordation will follow the protocol for treating cultural resources identified as inadvertent discoveries described in the UDP for the project. The UDP will describe treatment for prehistoric and below-grade historical-era resources, including all elements that contribute to the RSHS Historic District.

MM CUL 4 The UDP will be developed prior to the initiation of construction. The UDP will provide detailed descriptions of protection and mitigation measures for archaeological resources in the disturbance area. The UDP will include guidelines for the following:

- Avoidance of historical properties and establishment of environmentally sensitive areas
- Data recovery guidelines for known historical properties and resources that cannot be avoided by project design
- Protocols for treating cultural resources identified during preconstruction subsurface explorations, monitoring activities, and unanticipated discoveries, including human remains
- Monitoring during construction
- Responsibilities and coordination with Native American tribes and individuals
- Curation of recovered materials

The UDP will address treatment for prehistoric resources, including human remains, and historical-era resources, including all elements that contribute to P-34-2358, the RSHS Historical District. All activities outlined in the UDP will be conducted under the direction of individuals who meet the professional qualification standards in Archaeology and Historic Preservation, Secretary of Interior’s Standards and Guideline (Federal Register, Volume 48, No. 190, September 29, 1983).

As project design progresses, all efforts will be made to avoid known historical properties in the disturbance area. Resources avoided by project design will be identified as environmentally sensitive areas so that these locations are not inadvertently encroached upon during construction. New cultural resources identified during preconstruction subsurface explorations, monitoring activities, and as inadvertent discoveries during construction will require testing to assess their research potential and eligibility for the listing in the CRHR.

Evaluation efforts will involve archival research and archaeological fieldwork. Fieldwork methodologies will be tailored to the location, circumstance, and nature of the find. Therefore, it may be appropriate to use mechanical trenching techniques, controlled excavation units, or block exposures, shovel sampling explorations, or any combination of these. All newly identified resources will be thoroughly mapped, photographed, located through GIS, and recorded on DPR 523 forms.

If resources are determined to be eligible to the CRHR and cannot be avoided by construction, data recovery will be required. Data recovery may involve archaeological excavation, or for resources such as hollow sidewalks, detailed recordation on DPR 523 forms.

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

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. In addition to assessing impacts on archaeological resources meeting the requirements for listing as historical resources, impacts on unique archaeological resources are also considered under CEQA §15064.5 and in the California Public Resource Code (PRC) §21083.2. If an archaeological site does not meet the criteria for inclusion on the CRHR (as described under item (a) but meets the definition of a unique archaeological resource described in PRC,

it is entitled to special protection or attention under CEQA. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

- The archaeological artifact, object, or site contains information needed to answer important scientific questions, and there is a demonstrable public interest in that information
- The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type
- The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the above criteria. Impacts on non-unique archaeological resources and resources that do not qualify for listing on the CRHR receive no further consideration under CEQA.

No previously recorded unique archaeological resources have been identified within the disturbance area. Potential impacts on previously unidentified unique archaeological resources causing a substantial adverse change in the significance of a historical resource, as defined in §15064.5, would be the same as described above under item (a), potentially significant, and require MM CUL 1 through MM CUL 4. Impacts on previously unidentified unique archaeological resources would be less than significant with mitigation.

c. Would the project disturb human remains, including those interred outside of formal cemeteries.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. CEQA §15064.5 assigns special importance to human remains, and specifies procedures to be used when Native American remains are discovered. These procedures are detailed in PRC §5097.98.

As described in Section 4.6.1, Setting, human remains have been identified within the confines of prehistoric archaeological site P-34-002359 (Tremaine and Ferris, 2009). Within the vicinity of P-34-002359, the project would include the placement of new tracks and the installation of OCS poles. Tremaine and Ferris (2009) identified human burials and cremations at depths ranging between 7.2 and 8.0 feet bgs. Although the human remains were all identified at depths greater than 7 feet bgs, other site constituents were identified at 2.2 feet bgs. As such, project implementation in the vicinity of P-34-002359 has the potential to disturb this resource. Disturbance to P-34-002359, which has been documented to contain human remains, would be a potentially significant impact.

The inadvertent exposure of previously unidentified human remains would be a potentially significant impact. Implementation of MM CUL 1 through MM CUL 4 in addition to MM CUL 5 (described below) would reduce this impact to a less-than-significant level. With implementation of these mitigation measures, impacts related to the disturbance of human remains would be less than significant with mitigation.

MM CUL 5 The following measures shall be implemented should construction activities result in the accidental discovery of human remains and associated cultural materials. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activities shall comply with applicable state laws. This shall include:

- Immediate notification of the coroner of the county in which the project is located.

- In the event of the coroner’s determination that the human remains are Native American, notification of the California NAHC, which shall appoint a most likely descendent (PRC Section 5097.98).
- RT shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.
- The PRC allows 48 hours for the MLD to make recommendations after access has been allowed to the remains. If the MLD and the other parties do not agree on the reburial method, RT shall follow Section 5097.98(b) of the PRC, which states that “the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.”

d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. According to Assembly Bill 52, impacts on tribal cultural resources (TCR) must also be addressed under CEQA. As defined in PRC §21074, a TCR is a site, feature, place, cultural landscape, sacred place or object with cultural value to a “California Native American tribe,” that is either on, or eligible for inclusion in, the CRHR or a local historic register, or is a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a TCR.

As described in Section 4.6.1, Setting, prehistoric archaeological site P-34-002359 is eligible for listing to the NRHP and, as such, is eligible for listing to the CRHR. Within the vicinity of P-34-002359, the project would include the placement of new tracks and the installation of OCS poles. Tremaine and Ferris (2009) identified components of this resource at depths of between 2.2 and 9.0 feet bgs. As a result, project implementation in the vicinity of P-34-002359 has the potential to disturb this resource, which would be a potentially significant impact.

Implementation of MM CUL 1 through MM CUL 4, and potentially MM CUL 5, in consultation with consulting tribes would reduce impacts to a less-than-significant level.

e. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

NO IMPACT. The results of subsurface testing for the nearby Sacramento Metropolitan Utility District Station A project indicated that approximately 10 to 20 feet of fill material composed of mixed sands and silts is present (Youngdahl Consulting Group, Inc. [Youngdahl], 2014). Native levee and channel deposits were encountered below the fill material, to a depth of approximately 60 feet bgs. The levee and channel deposits consist of Holocene (i.e., 11,700 years B.P. to present day) silts, sands, and clays (Wagner et al., 1987; Youngdahl, 2014).

To be considered a unique paleontological resource, a fossil must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered unique paleontological resources. Furthermore, regardless of the origin of the fill material, if any unique paleontological resources originally were present, they would have been destroyed during the excavation and fill placement. Therefore, these deposits are not considered to be paleontologically sensitive. Although Pleistocene sedimentary deposits (which may contain unique paleontological resources) are located at approximately 50 to 60 feet bgs, the deepest project-related

excavation activities (i.e., the OCS pole foundations) would extend to approximately 30 feet bgs. Therefore, excavation for the project would be limited to Holocene materials, and there would be no potential for damage to or destruction of unique paleontological resources. Therefore, there would be no impact.

4.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.6.1 Setting

The project area is in the Great Valley geomorphic province. Existing topography is generally flat across the northern and central portions of the property and slopes gently toward a depression at the southern portion of the property. Elevations range from approximately 28 to 32 feet above mean sea level. The project area is underlain by Cenozoic alluvium and sediments and sedimentary rocks of the Mesozoic and early Cenozoic-aged Great Valley Sequence, which generally consists of sandstone shale and conglomerates. Soils in the project area are classified primarily as Orthents-Urban Land Complex, with some areas along H Street classified as Urban Land (Natural Resources Conservation Service [NRCS], 2015). According to subsurface soil explorations, the project area generally contains a mixture of silt, sand, and gravel fill underlain by dense to loose silty sand, stiff to soft silt, and sandy silt. A deeper layer of very dense to loose sand and silty sand is beneath the sand and silt (USDOT et al., 2009; PBS&J/EIP, 2007). The project area is not located in an area that is subject to fault rupturing, based on information in *Fault-Rupture Hazard Zones in California* (California Geological Society, 2007) and the most recent Alquist-Priolo Earthquake Fault Zoning Act maps (California Department of Conservation, 2015).

4.6.2 Impact Analysis

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

NO IMPACT. Because no known faults traverse the project area, there would be no impact.

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

LESS-THAN-SIGNIFICANT IMPACT. The potential for an earthquake to result in strong seismic ground shaking and resulting ground failures (e.g., liquefaction and settlement) in the project area was studied for both the overall Railyards Specific Plan EIR (PBS&J/EIP, 2007) and for the City's SVS program (USDOT et al., 2009). As stated in Railyards Specific Plan EIR, the highest intensity of ground shaking in the project area would be caused by an earthquake on the San Andreas Fault with a magnitude of 7.9. The artificial fill and alluvial deposits in the project area indicate that seismic ground shaking could result in damage to facilities including indirect damage from liquefaction or settlement. RT addresses civil design and construction practices by requiring that all rail projects comply with the *Manual for Railway Engineering* (AREMA Manual) (American Railway Engineering and Maintenance-of-Way Association [AREMA], 2015). In addition, rail projects on public streets must comply with applicable roadway design requirements of the American Association of State Highway and Transportation Officials (2011) and Caltrans (2015). Conformance to standard design practices, such as the AREMA Manual, would ensure that the trackwork, utility installation, and construction of new platforms would not present an increased risk from seismic hazards due to ground shaking. Therefore, impacts would be less than significant.

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

LESS-THAN-SIGNIFICANT IMPACT. See previous response to item (a)(ii).

- iv) **Landslides?**

NO IMPACT. The project area is flat with no adjacent hillsides; therefore, there would be no impact.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS-THAN-SIGNIFICANT IMPACT. Construction of the project would require clearing, grading, and excavation. The NRCS does not rate Orthents-Urban Land Complex and Urban Land soil types for erosion potential. In general, erosion due to wind or rain could occur if soil is left uncovered for extended periods. To minimize and control the erosion of soils disturbed and exposed by construction activities, BMPs will be implemented as discussed in Section 4.9, Hydrology and Water Quality. Therefore, the potential for the project to result in substantial soil erosion or loss of topsoil would be less than significant.

c. Would the project be located on a geologic unit or soils that is unstable, or that would become unstable as a result of the project, and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS-THAN-SIGNIFICANT IMPACT. Because of the project area's generally flat topography, there would be no instability from landslides, lateral spreading, or collapse. Liquefaction and settlement/subsidence are discussed in item (a) above. As described, the impact would be less than significant.

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

LESS-THAN-SIGNIFICANT IMPACT. The NRCS does not rate the Orthents-Urban Land Complex or Urban Land soils types for linear extensibility, a characteristic of expansive and shrink-swell soils. The existence of undocumented fill in the project area increases the possibility of expansive soils occurring randomly and causing foundation stability issues. As discussed in item (a) above, consideration of geology and soils limitations would occur pursuant to the generally accepted design standards in the AREMA Manual (AREMA, 2015), the Caltrans Highway Design Manual (Caltrans, 2015), and City standards. This regulatory framework would require that the project design address weak soils conditions, including the risk of linear extensibility, to acceptable engineering standards for safety; therefore, the impact would be less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

NO IMPACT. The project does not include use of septic tanks or alternative wastewater systems; therefore, there would be no impact.

4.7 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.7.1 Setting

Greenhouse gases (GHG) include naturally occurring and anthropogenic gases, such as carbon dioxide (CO₂), methane, nitrous oxide, hydro-chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs absorb infrared radiation, trap the energy from the sun, and help maintain the temperature of the Earth's surface, creating a process known as the greenhouse effect. The accumulation of GHGs in the atmosphere influences the long-term range of average atmospheric temperatures. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce economic and social consequences across the globe. This section describes the regulatory background and existing conditions for GHG emissions.

4.7.1.1 Federal Regulations

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency. EPA and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles, from the smallest cars to the largest trucks, through reduced greenhouse gas emissions and improved fuel use. Together, the enacted and proposed standards are expected to save more than 6 billion barrels of oil through 2025 and reduce more than 3,100 million metric tons of carbon dioxide emissions.

EPA is also responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. By 2022, the Renewable Fuel Standard program will reduce greenhouse gas emissions by 138 million metric tons, about the annual emissions of 27 million passenger vehicles, replacing about 7 percent of expected annual diesel consumption and decreasing oil imports by \$41.5 billion. (EPA, 2015).

On August 3, 2015, EPA issued the Clean Power Plan, which put the nation on track to cut harmful pollution from the power sector by 32 percent below 2005 levels while also cutting by 20 percent smog and soot-forming emissions that threaten public health (EPA, 2015).

Other GHG related federal regulations include (1) the Mandatory Greenhouse Gas Reporting Rule, which requires facilities that emit 25,000 metric tons per year or more of carbon dioxide equivalent emissions to report emissions to EPA and (2) the revised GHG Tailoring Rule, which requires implementation of BACT for sources under Prevention of Significant Deterioration and Title V Operating Permit programs, and increase GHG emissions by 75,000 tons per year.

4.7.1.2 State Regulations

At the state level, the following legislation and Executive Orders (EO) are the basis for California's approach to address GHG emissions and potential climate change-related impacts:

- Assembly Bill (AB) 1493, Vehicular Emissions: Greenhouse Gases, 2002: Requires ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year.
- EO S-3-05, June 1, 2005: Defines goal to reduce California GHG emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by the 2020, and (3) 80 percent below year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32, as described below.
- AB 32, The Global Warming Solutions Act of 2006: Sets the same overall GHG emissions reduction goals as outlined in EO S-3-05 and further mandates that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” In December 2008 the ARB approved the initial scoping plan (ARB, 2008), which included a suite of measures to sharply cut GHG emissions. Key elements of the initial scoping plan included the following:
 - Expand and strengthen energy efficiency programs, including building and appliance standards.
 - Increase electricity generation from renewable resources to at least 33 percent of the statewide electricity mix by 2020.
 - Establish targets for passenger vehicle-related GHG emissions for regions throughout California and pursue policies and incentives to achieve those targets. Included with this strategy is support for the development and implementation of a high-speed rail system to expand mobility choices and reduce GHG emissions.
 - Adopt and implement measures pursuant to existing state laws and policies, including California’s clean car standards and the Low Carbon Fuel Standard.
 - Develop a cap-and-trade program to ensure the target is met, while providing California businesses the flexibility to reduce emissions at low cost.

In May 2014, ARB approved the Climate Change Scoping Plan, First Update (First Update) (ARB, 2014). The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the state’s “longer-term” GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

- EO S-20-06 (October 18, 2006): Establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency and state agencies with regard to climate change.
- EO S-01-07 (January 18, 2007): Sets forth the low carbon fuel standard for California; the carbon intensity of California’s transportation fuels is to be reduced by at least 10 percent by 2020.
- Senate Bill (SB) 97, Chapter 185, 2007, Greenhouse Gas Emissions: Requires the Governor’s Office of Planning and Research to develop recommended amendments to the CEQA Guidelines (California Natural Resources Agency, 2009) for addressing GHG emissions. The amendments became effective March 18, 2010.
- SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: Requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a “sustainable communities strategy” that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.
- SB 391, Chapter 585, 2009 California Transportation Plan: Requires the state’s long range transportation plan to meet California’s climate change goals under AB 32.

- Renewables Portfolio Standard (RPS): Established in 2002 under SB 1078, accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.
- California EO B-30-15, 2015: Calls for a California GHG reduction target of 40 percent below 1990 levels by 2030. This is the most aggressive GHG emissions reduction goal in North America. Legislation for this target has not been ratified at this time; however, EO B-30-15 sets the stage for the work being done on climate change by the State Legislature (Office of the Governor of California, 2015).

4.7.1.3 Regional Climate Actions

The *Climate Change Action Plan: Strategy and Framework Document* in November 2011 (County, 2011) summarizes the actions that the County has already taken within its jurisdictional control and identifies a menu of future actions. The Sacramento Climate Action Plan (City, 2012) includes GHG reduction targets, strategies, and specific actions which the City can implement to adapt to the effects of climate change. One of the key GHG reduction strategies identified in the Climate Action Plan is to create a connected multimodal transportation network that increases the use of sustainable modes of transportation (i.e., walking, biking, and transit) and reduces dependence on automobiles. Implementation of this strategy would reduce total communitywide vehicle miles traveled per capita by a minimum of 7 percent by 2020 and 16 percent by 2035.

4.7.1.4 Greenhouse Gas Emission Inventory

In the United States, the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (e.g., passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest category of GHG-emitting sources (ARB, 2015). In 2013, the most recent year for which data are provided, the annual statewide GHG emissions were 459.3 million metric tons of CO₂-equivalent (ARB, 2015). The transportation sector accounts for about 37 percent of the statewide GHG emissions inventory. The industrial sector accounts for about 20 percent of the total statewide GHG emissions inventory. The dominant GHG emitted is CO₂, primarily from fossil fuel combustion.

The Sacramento County Department of Environmental Review and Assessment developed 2005 GHG inventories for the County. The countywide GHG emissions total is 13.9 million metric tons. On-road transportation emissions are the largest source of GHG emissions in the County, accounting for approximately 48 percent of the County's GHG emissions. Residential, commercial, and industrial building energy use is the next largest source of GHG emissions in the County. GHG emissions from the City in 2005 accounted for 30.4 percent of the countywide emissions inventory (City, 2012).

4.7.2 Impact Analysis

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

LESS-THAN-SIGNIFICANT IMPACT. GHG emissions increases would occur during project construction because of fuel use in the construction equipment and vehicles. GHG impacts from project construction were evaluated based on the GHG emissions from off-road construction equipment and on-road vehicles. GHG emissions from off-road construction equipment and vehicles were estimated using CalEEMod (CAPCOA, 2013). GHG emissions estimated for project construction and the SMAQMD CEQA threshold for GHGs are presented in Table 4-7.

Construction emissions of GHG would be below the SMAQMD CEQA threshold of 1,100 metric tons per year; therefore, the project would have a less-than-significant impact related to GHG emissions during construction.

Table 4-7. Project Construction Greenhouse Gas Emissions

Emissions	Carbon Dioxide Equivalent (metric ton/year)
2017 Construction Emissions	316.8
2018 Construction Emissions	47.2
SMAQMD Threshold	1,100

The light rail operation would use electrically powered trains, which would result in indirect GHG emissions from power generation. However, the project would only add approximately 0.5 mile of new track in the project area. Increased electricity usage due to the project operation would be limited because of the short length of the track added. In addition, the light rail would use electricity from the state power grid that would comply with the RPS and the AB 32 Scoping Plan GHG reduction strategy. The RPS and the Scoping Plan require electricity service providers to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. Indirect GHG emissions from the project operation would have less-than-significant impacts on the environment.

In conclusion, the project construction and operational GHG emissions would not result in significant impacts on the environment.

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

LESS-THAN-SIGNIFICANT IMPACT. As discussed in item (a) above, construction GHG emissions would be below the SMAQMD CEQA threshold. The project would also implement BMPs to reduce air quality impacts during project construction, some of which would also reduce GHG emissions, such as limiting vehicle idling time and maintaining equipment in good operational condition. Therefore, project construction would not conflict with the state GHG reduction goal or the City and County climate change plans.

Operation of the light rail would use electrical power, so there would not be direct GHG emissions from the light rail train movements. Electricity for train operations would be obtained from the state power grid, and would, therefore, comply with the RPS and the AB 32 Scoping Plan GHG reduction strategy to meet the 2020 goal. Therefore, operational GHG emissions would not hinder or otherwise conflict with AB 32 or the AB 32 Scoping Plan and the First Updates for reducing GHG emissions to 1990 levels by 2020.

Although the First Update identified and described a long-term vision and near-term activities to put California on the path to its 2050 emission reductions goal, many factors will influence the state's ability to attain the 2050 GHG reduction goal, including changes in regulatory standards, fuel, transportation, and power generation technologies, growth in population, land use development patterns, and other factors that cannot presently be known. However, because the project is part of the key strategy identified in the Climate Action Plan (City, 2012) to reduce GHG emissions, implementation of the project would help fulfill GHG reduction targets by introducing a more energy-efficient alternative that better connects to other transit services and reduces travel by single-occupant automobiles. In all other respects, the project would not hinder or delay California's ability to meet the GHG reduction targets in AB 32 and the Climate Change Scoping Plan. Therefore, the impact from the project would be less than significant.

4.8 Hazards and Hazardous Materials

Would the project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.8.1 Setting

The project area has been disturbed by commercial and industrial activities, including development and use of transportation facilities and the assembly and maintenance of rail cars and locomotives. Environmental testing and cleanup activities are currently being performed pursuant to a 1988 Enforceable Agreement between the Department of Toxic Substance Control (DTSC) and UPRR. The soil profile within the project area predominantly consists of fill soils ranging in elevation from 20 to 30 feet above mean sea level (USDOT, et al., 2009).

A record search was conducted to identify existing hazardous sites in the project area. The search identified two sites with hazardous groundwater or soil in the project area (California State Water Resources Control Board [State Water Board], 2015). Both sites are related to the historical operations of the Railyards:

- Southern Pacific Railyards:** The historical operation of the Railyards began in 1865. This contaminated site is approximately 240 acres and encompasses most of the project elements. Inorganic and organic contamination are broadly distributed across most the site. On June 2, 1988, DTSC and Southern Pacific Transportation Company entered into an Enforceable Agreement. A work plan and schedule for investigation and cleanup was finalized in October 1988, and site remediation

is ongoing. The overall cleanup status is “Active,” however, remediation activities have been completed at some individual sites.

- **South Plume Groundwater Study Area:** A significant dissolved-phase chlorinated VOC plume extends from the Railyards area to the south, beneath downtown Sacramento, to approximately P Street. The cleanup status for this area of groundwater contamination is “Open – Assessment and Interim Remedial Action” (State Water Board, 2015). Contaminated groundwater has been detected in onsite and offsite contaminant plumes. Groundwater is being actively pumped and treated both on the Railyards site and near the southern terminus of the plume. In addition, soil vapor extraction of the major VOC source areas is ongoing at the Railyards site. DTSC is the designated lead agency and the State Water Board is the lead support agency (State Water Board, 2015).

4.8.2 Impact Analysis

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

LESS-THAN-SIGNIFICANT IMPACT. The project does not include the routine transport, use, or disposal of hazardous materials. Operation of light rail vehicles, electrical facilities such as overhead contact wires and charging stations, routine station cleaning, and landscape maintenance activities may require the use of products that could be considered hazardous materials, but all products would be applied by RT staff or vendors consistent with label requirements. Project construction would involve the use of construction equipment, which could result in a potential for release of hazardous materials such as fuel, oil, and similar pollutants derived from vehicle use. Given the small size of the construction project and the limited number of facilities and the small length of additional tracks, the potential for impacts is small. In addition, the job site would be maintained in compliance with standard construction requirements for pollution and water quality control (see additional discussion in Section 4.9, Hydrology and Water Quality). For these reasons, impacts would be less than significant.

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

LESS-THAN-SIGNIFICANT IMPACT. As previously described in Section 4.8.1, Setting, the project area has a history of environmental contamination. Most of the soil and groundwater remediation activity is nearing completion in anticipation of the Railyards Specific Plan (City, 2007) development, and some new infrastructure projects, notably the 5th and 6th Street overcrossings, have been completed. However, the site history indicates there is the potential to encounter contaminated soil or groundwater during construction. This presents a risk to the public and construction workers and to the environment, in addition to the slight possibility of accidental releases or upset of hazardous materials during construction.

For improvements on lands that are part of (or were formerly part of) the historical Sacramento Railyards property, RT is obligated to follow environmental restrictions contained in the Land Use Covenant and Agreement between DTSC and the property owner. Environmental restrictions call for preparation of a soil management plan prior to any excavation, grading, or similar construction activities that may disturb native soils. The plan would include provisions for handling and disposing of native soil encountered during construction, which is likely to occur during excavating work for installation of the OCS poles and for a possible underground electric charging station. Safe handling and disposal of potentially contaminated soil would minimize risks to the environment and the general public.

Construction worker safety is regulated by the California Department of Industrial Relations, Division of Occupational Safety and Health, which implements California Code of Regulations Title 8 requirements that protect construction workers from exposure to hazardous substances. Key Title 8 requirements include maintaining an injury and illness prevention program, adopting a code of safe practices, and

conducting onsite safety meetings at least every 10 working days. Because of these and other standard construction requirements (see additional discussion in Section 4.9, Hydrology and Water Quality), the risks from accidental releases or upset of hazardous materials during construction would be reasonably controlled. After construction, there is little potential for project elements to disrupt or upset hazardous materials. Routine landscape maintenance would be required at the SVS Station and the Railyards Station, and RT is obligated to follow post-remediation covenants including preventing exposure to native soil. For these reasons, impacts would be less than significant.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. The closest school is 0.6 mile away; therefore, there would be no impact.

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

LESS-THAN-SIGNIFICANT IMPACT. The hazardous materials sites discussed in item (b) above meet the criteria for Government Code Section 65962.5 (i.e., the Cortese List); as discussed in item (b) above, the safety hazard related to construction at the Railyards would be subject to the provisions of the Land Use Covenant and Agreement and would be less than significant.

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

NO IMPACT. The project is not located within 2 miles of an airport; therefore, there would be no impact.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The project is not within the vicinity of a private air strip; therefore, there would be no impact.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. None of the streets that would be affected by the project are listed as evacuation routes (City, 2008); therefore, there would be no impact.

h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

NO IMPACT. The project area is not considered a Fire Hazard Severity Zone (CalFire, 2007) or a Very High Fire Hazard Severity Zone (CalFire, 2008); therefore, there would be no impact.

4.9 Hydrology and Water Quality

Would the project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements (WDR)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j.	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.9.1 Setting

The project area topography is flat, with micro-relief from soil stockpiles, a detention pond, and similar features. The project area is in an urban environment, with no natural drainage features and full urban streetscape improvements (including underground utilities) along H Street and at the 7th Street/F Street intersection. Other portions of the project area, including the SVS Station and Railyards Station areas, are undeveloped but have been subjected to large, recent disturbances associated with Railyards soil and groundwater remediation activities.

The project area is in a portion of the City that is served by a combined sewer and storm drain system, known as a combined sewer system (CSS). Flows from the CSS service area ultimately discharge to the Sacramento Regional Wastewater Treatment Plant, which is approximately 5 miles south of the project area, for treatment and disposal into the Sacramento River. Interim facilities exist for partial treatment

during periods of high flows (e.g., storm events).³ The project area is not located within a 100-year flood hazard area and is protected by an existing levee system (Federal Emergency Management Administration [FEMA], 2015a; FEMA, 2015b).

4.9.2 Impact Analysis

a. **Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality?**

LESS-THAN-SIGNIFICANT IMPACT. The primary water quality standards that apply to the project are the *Sacramento Areawide NPDES Municipal Stormwater Permit* (Order No. R5-2008-0142), which applies to most new development projects in the Sacramento area, and the *General Permit for Discharges of Stormwater Associated with Construction Activity* (Order No. 2009-0009-DWQ), which applies to all construction projects larger than 1 acre. The stormwater quality standards are applicable to the project because of the potential for the project to generate runoff during the construction and operational phases. The project would not generate wastewater; therefore, other water quality standards and waste discharge requirements do not apply.

Pursuant to the Municipal Permit, Sacramento-area permittees have published the *Sacramento Region Stormwater Quality Design Manual* (City of Citrus Heights, et al., 2014). The manual outlines planning tools and requirements to reduce urban runoff pollution from new development and redevelopment projects to the maximum extent practicable, and calls for an integrated planning and design approach in which stormwater quality controls are considered early so that they can be effectively integrated into site design and planning. The manual applies to most new projects, including street and road projects. RT will incorporate the following (or similar) stormwater quality control measures from the manual during project design and construction:

- Incorporate infiltration basins or infiltration trenches in project design
- Include vegetated swales in the landscape plan
- Use low-impact development principles such as permeable pavement

With the inclusion of these or similar control measures pursuant to the *Sacramento Region Stormwater Quality Design Manual*, project impacts would be less than significant.

The construction general permit requires development and implementation of a storm water pollution prevention plan (SWPPP). Prior to construction, RT (or its construction contractor) will file a Notice of Intent for coverage under the construction general permit and prepare a SWPPP that lists BMPs to protect stormwater quality. Typical BMPs used during construction include silt fences for sediment control and storm drain inlet protection using fabric barriers. In addition, the SWPPP also will contain a visual monitoring program and a chemical monitoring program for nonvisible pollutants to be implemented if the BMPs fail. Implementation of the SWPPP, as required by the construction general permit, will ensure protection of stormwater quality; therefore, impacts during project construction would be less than significant.

³ The City's long-term SVS program is making various improvements to minimize the potential for overflows of partially treated CSS wastewater into the Sacramento River. An important component of the SVS program is the utilities plan for the Railyards redevelopment project, which would separate wastewater from the storm drainage system (i.e., the Railyards would no longer be served by the CSS). With full buildout of the Railyards, including the SVS project area, drainage from RT's SVS project facilities would flow to the City's modernized Railyards storm drain system.

- b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

LESS-THAN-SIGNIFICANT IMPACT. The project does not include facilities that would require substantial water service. Water service in the project area is generally provided by the City's surface water system. The project would generate a minor amount of new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards Stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS. Because the project would not increase demand for groundwater or interfere substantially with groundwater recharge, potential impacts would be less than significant.

- c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?**

NO IMPACT. Because of the generally flat topography and limited site grading, the project would not change the existing drainage patterns. Therefore, there would be no impact.

- d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?**

NO IMPACT. See response to item (c) above.

- e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

LESS-THAN-SIGNIFICANT IMPACT. The project would generate a minor amount of new runoff associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas with no impervious surfaces. In addition, there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and further storm drainage improvements are planned as part of several ongoing projects such as F Street construction west of 7th Street.

Stormwater runoff quantities associated with the project are unknown but would be small in the context of local infiltration capacity and drainage infrastructure. Potential changes in drainage would be addressed by compliance with existing regulatory programs including the *Sacramento Region Stormwater Quality Design Manual* (City of Citrus Heights et al., 2014). For example, final design is expected to include extensive landscaping in pedestrian access areas, permeable pavement, and similar measures. For these reasons, hydrologic impacts from runoff would be less than significant. Potential water quality impacts are addressed in item (a) above.

- f. Would the project otherwise substantially degrade water quality?**

LESS-THAN-SIGNIFICANT IMPACT. See response to item (a) above.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. No housing construction is proposed as a part of the project. Therefore, there would be no impact.

h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

NO IMPACT. The project area is not located within a 100-year flood hazard area and is protected by an existing levee system (FEMA, 2015a; FEMA, 2015b). Therefore, there would be no impact.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

NO IMPACT. The project area is not located in a special flood hazard area; it is protected by an existing levee system (FEMA, 2015a; FEMA, 2015b). Therefore, there would be no impact.

j. Would the project result in inundation by seiche, tsunami, or mudflow?

NO IMPACT. There are no waterbodies in the project area that would create conditions for inundation by a seiche or tsunami, and there are no hillslopes in the project area that could inundate the site with mudflows. Therefore, there would be no impact.

4.10 Land Use and Planning

Would the project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.10.1 Setting

The project area is located in the northwestern portion of downtown Sacramento. The SVS area is characterized by transit uses including Amtrak, light rail, and private and public bus services. Surrounding the SVS area are office, commercial, and high-density urban residential buildings. A substantial portion of the project site is undeveloped. Other than frontage improvements on the east side of North 7th Street, the Railyards Station site is undeveloped.

The General Plan (City, 2015) designates the project area as Urban Neighborhood High Density, Public/Quasi-Public, and Urban Center High Density. The SVS area is governed by the Railyards Specific Plan (City, 2007), which designates the area as Transit Use. The Railyards Station is designated as “Residential Mixed-Use.”

4.10.2 Impact Analysis

a. Would the project physically divide an established community?

NO IMPACT. The project would be constructed on City streets and in undeveloped areas, and as such would not divide existing residential communities. Therefore, there would be no impact.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

NO IMPACT. The General Plan (City, 2015) emphasizes the need for increased transportation uses and the development of an integrated and multimodal transit system. The goals and policies outlined in the Mobility Element, the Central City Community Plan, and the Land Use and Urban Design Element support the purpose and objective of the project, including goals and policies that encourage and focus on creating a multimodal and balanced transportation system that provides transportation facilities to support this network. Because the project aims to develop a more seamless and efficient transportation network, it is consistent with the General Plan.

The project is also a part of the Railyards Specific Plan (City, 2007), which provides a map for the planned buildout of the Railyards. In the Railyards Specific Plan, the SVS is designated as “Transit Use,” and the Railyards Station is designated “Residential/Mixed Use.” Because the project would develop

more transit opportunities and would support the higher densities and mixed uses by providing access, mobility, and an alternative to cars, the project is consistent with the Railyards Specific Plan.

Because the project would be consistent with the General Plan (City, 2015) and the Railyards Specific Plan, there would be no impact.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The project area is not located within a habitat conservation plan area or natural community conservation plan area. Therefore, there would be no impact.

4.11 Mineral Resources

Would the project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.11.1 Setting

The project is not located in an area of known mineral resources. According to the California Department of Conservation, Division of Mines and Geology, the project area is in the Mineral Resource Zone 1 (MRZ-1) area. MRZ-1 represents areas where there is enough information to indicate that there are no significant mineral deposits present, or where it is determined that it is unlikely that resources are present (Department of Conservation, 1999).

4.11.2 Impact Analysis

- a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

NO IMPACT. The project area is within MRZ-1, as classified by the Department of Conservation and Division of Mines and Geology. MRZ-1 is defined as “Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.” (Department of Conservation, 1999). Because the project does not affect any known mineral resource in the area, there would be no impact.

- b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

NO IMPACT. The project would not result in the loss of availability of a mineral resource recovery site as described in item (a) above; therefore, there would be no impact.

4.12 Noise

Would the project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.12.1 Setting

Existing noise levels in the vicinity of the project area are based on those described in the Railyards Specific Plan EIR (PBS&J/EIP, 2007). Although not recently measured, these noise levels adequately represent the existing major noise sources in the area. Noise and vibration sources associated with the project include construction, cars and trucks idling at intersections, and train operations. Sensitive receptors in the project area include the Mercy Housing of California multifamily complex at 7th and H Streets and several detached homes at 7th and F Streets. The current noise environment in these areas is estimated to be approximately 64 decibels A-weighted scale (dBA) day-night sound level (Ldn). The proposed SVS Station and electric bus charging station would not be near any sensitive receptors, and the existing noise is approximately 72 dBA Ldn. The Railyards Station would not be near sensitive receptors, and the current noise level is approximately 67 dBA Ldn. Existing noise is generated by light rail, passenger rail, and freight rail operations; bus operations; local traffic; and traffic on Interstate 5.

The *Transit Noise and Vibration Impact Assessment* (Federal Transit Administration [FTA], 2006) noise and vibration guidelines were used to evaluate operational noise. FTA provides thresholds for different land uses. The noise thresholds use a sliding scale that is based on existing noise exposure; thresholds are categorized as moderate or severe. Vibration thresholds are set maximum vibration levels by land use. For noise, the threshold of significance is the severe impact threshold. For vibration, the thresholds of significance are the FTA impact thresholds. The impact analysis also applies the regional and local limits described the following sections.

4.12.1.1 City of Sacramento General Plan

Policy NO-9 of the General Plan (City, 2015) describes noise limits for transportation projects that enhance existing roadway or rail projects or construction of new roadways or railways. It states that if

the pre-project ambient noise (i.e., the Ldn) already exceeds 65 dBA, an increase in the ambient noise by 1.5 dB or more due to the project would be considered a significant increase.

4.12.1.2 City of Sacramento Noise Ordinance

The City noise ordinance limits the maximum exterior noise levels at residential land uses to 55 dBA daytime and 50 dBA nighttime. Higher noise levels are permissible for short-duration noisy activities, but the exterior noise levels should never exceed 75 dBA for daytime hours or 70 dBA for nighttime hours. If existing ambient noise already exceeds the limit, the limit is increased in +5 decibel (dB) increments until the ambient level is encompassed. Section 8.68.200 of the Sacramento Municipal Code also prohibits the operation of pile drivers, steam shovels, pneumatic hammers, derricks, steam or electric hoists, or other noisy equipment during the nighttime hours (10 p.m. to 7 a.m.). However, construction activities are exempt from the noise limits during certain hours by Sacramento Municipal Code; Section 8.68.080 exempts the noise limits for construction between 7 a.m. and 6 p.m. from Monday through Saturday, and between 9 a.m. and 6 p.m. on Sundays. These noise limits are applicable within the City.

Construction activities outside of the exempted hours require a permit from the City.

4.12.2 Impact Analysis

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Noise from light rail vehicles is generally low on straight sections of track but can be higher at tight curves, because of wheel squeal and movements over common crossings. As a general guideline, wheel squeal may increase train noise by 10 dB. A common approach to controlling wheel squeal is to apply a friction modifier or lubricant such as rail curve grease to the railhead, wheel tread, and gauge face of the rail or wheel flange.

Special trackwork is necessary for turnouts and crossovers, where two rails cross. In those places, a fixture called a “frog” is used. The wheel impacts at the gaps in the rails of a standard frog cause noise and vibration levels near special trackwork to increase up to 10 decibels of vibration. Well-maintained, low-impact frogs are recommended to reduce noise and vibration by about half compared to standard frogs. Examples of low-impact frogs include flange-bearing frogs with a minimum ramp length of 2 feet, spring-rail and moveable-point frogs, and monoblock frogs milled out of a single block of steel.

Sensitive receptors are located near two tight curves: the 7th St and F Street and 7th St and H Street intersections. At both intersections, the estimated noise level would be 67 dBA, exceeding the FTA *severe* threshold of 66 dBA (based on existing sound being 65 dBA Ldn). The estimated worst hour equivalent sound level (Leq) is 66 dBA, which exceeds the Sacramento Noise Ordinance of 65 dBA (based on existing sound being 63 dBA Leq). Implementation of the following mitigation measures would reduce the severity of this impact, resulting in a less-than-significant noise impacts on nearby residents:

- | | |
|----------|--|
| MM NOI-1 | During final design, RT will specify that low-impact common crossings (frogs) be installed at the 7th St and F Street and 7th St and H Street intersections. |
| MM NOI-2 | During operations, RT will apply rail curve grease at the 7th St and F Street and 7th St and H Street intersections. Applications will be made at sufficient intervals and quantities to minimize wheel squeal during normal operations. |

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Groundborne noise and vibration from light rail vehicles is generally low on straight sections of track but can be higher at tight curves, because of movements over common crossings (frogs). Sensitive receptors are located near two tight

curves: the 7th St and F Street and 7th St and H Street intersections. Implementation of MM NOI-1 would reduce the severity of this impact, resulting in a less-than-significant groundborne noise and vibration impacts on nearby residents.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. In the vicinity of the 7th Street and F Street intersection, the ambient noise could permanently increase without mitigation. As described in item (a) above, a combination of low-impact frogs (MM NOI-1) and friction rail curve grease (MM NOI-2) would reduce the impact to a less-than-significant level.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS-THAN-SIGNIFICANT IMPACT. Construction activities are a temporary source of noise for the project. Typical construction equipment such as earthmovers, pneumatic tools, and generators range from 70 to 80 dBA Leq at a distance of 50 feet for an 8-hour work shift; a higher noise levels would be generated with a combination of equipment. RT is required to comply with City requirements for noise control (Sacramento Municipal Code, Section 8.68), including the allowance for daytime construction noise. By complying with this requirement, construction noise impacts would be less than significant.

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

NO IMPACT. The comprehensive land use maps for all airports in the vicinity of the project indicate that the project is outside the boundaries for all airport plans (SACOG, 2015a). Also, the project would not involve new residential development or increase the exposure of residents near the airports to more noise. Therefore, there would be no impact.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The project is not near any known private airstrips and the project would not involve new residential development. Therefore, there would be no impact.

4.13 Population and Housing

Would the project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.13.1 Setting

The project area is located in the northwest portion of downtown Sacramento. The SVS area is characterized by transit uses that include Amtrak, light rail, and private and public bus services. Surrounding the SVS area are office, commercial, and high-density urban residential buildings. A substantial portion of the project site is undeveloped. Other than frontage improvements on the east side of North 7th Street, the Railyards Station site is undeveloped.

4.13.2 Impact Analysis

- a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

NO IMPACT. The project does not include the construction of new homes or businesses. The project would extend transit infrastructure into the SVS area and provide a station to serve future Railyards Specific Plan (City, 2007) development. In this manner, the project is supportive of the higher densities and mixed uses by providing access, mobility, and an alternative to cars, but would not be growth inducing. Therefore, there would be no impact.

- b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

NO IMPACT. The project would not result in the displacement of existing housing, and would not necessitate the construction of replacement housing elsewhere. Therefore, there would be no impact.

- c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

NO IMPACT. The project would not displace people; therefore, there would be no impact.

4.14 Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14.1 Setting

Public services and facilities serving the project area are operated and maintained by the City. These services include fire, police, and public works. In addition, RT provides police services for its stations, including the use of patrol cars and patrol stations. There are no schools in the area. The project is less than 0.5 mile away from Cesar Chavez Plaza Park, Zapata Park, and River Walk Park (located across the Sacramento River).

4.14.2 Impact Analysis

a. Fire protection

NO IMPACT. The project does not include new residential, commercial, or industrial developments, so there would be no increase in the demand for fire protection services. Construction and operation of the project is not expected to increase the demand for fire protection services in the project area. During construction of the project, emergencies could occur at the project site; however, appropriate notification to local emergency service providers prior to construction would address impacts that could affect emergency response times, such as lane closures. In an emergency, the Sacramento Fire Department would provide fire protection and emergency medical services to the project site. In addition, RT would coordinate with the City and comply with necessary rules and procedures regarding street closures and traffic management related to construction. Therefore, there would be a less-than-significant impact as a result of this project.

b. Police protection

NO IMPACT. The project would not (1) increase population, (2) include park-and-ride facilities, or (3) create areas not easily monitored or surveyed. Stations would be designed in accordance with Section 8.3.1 of the RT Design Criteria (Sacramento Regional Transit District, 2009), which describes safety and security measures such as maintaining natural visibility and surveillance. As a result, the project is not anticipated to affect crime rates in the vicinity. In addition, RT provides police services, which include personnel patrolling the light rail systems by car, foot, and riding the light rail trains. With

these resources, additional City police protection would not be needed, and there would be no impact on public police services as a result of this project.

c. Schools

NO IMPACT. This is a non-residential project and, consequently, would not generate a direct or secondary impact resulting in an increase demand for schools. The project would not generate an increase in population or additional students during construction or operation. Therefore, the project would have no impact on schools.

d. Parks

NO IMPACT. This is a non-residential project and, consequently, would not generate a direct or secondary impact resulting in an increased demand for parks (see Section 4.15, Recreation, for more information). The project would not increase the use of existing neighborhood and regional parks or other recreational facilities. Therefore, the project would have no impact on parks.

e. Other public facilities

NO IMPACT. This is a non-residential project and, consequently, would not generate a direct or secondary impact resulting in an increased demand for public facilities. The project would not result in an increase in population during project construction or operation; therefore, the project would not affect other government services or public facilities.

4.15 Recreation

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.15.1 Setting

The project area consists of undeveloped land and urban uses including transportation infrastructure, housing, and office buildings. The project area is in the northwestern portion of downtown Sacramento, and less than 0.5 mile from Cesar Chavez Plaza Park, Zapata Park, and River Walk Park (located across the Sacramento River).

4.15.2 Impact Analysis

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

NO IMPACT. The project does not include new residential development, and it would not result in increased demands for park and recreation facilities. Therefore, there would be no impacts.

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

NO IMPACT. The project does not include recreational facilities. As described in (a) above, the project would not result in increased demands for park and recreational facilities, and would not require the construction or expansion of recreational facilities. Therefore, there would be no impact.

4.16 Transportation and Traffic

Would the Project:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.16.1 Setting

The transportation analysis focuses on the immediate vicinity of the SVS. This a multimodal station area where pedestrians and bicyclists mix with motor vehicle and train traffic.

The traffic mix is generated by station users and the surrounding downtown Sacramento land uses, which are largely office, commercial, and retail related. Operation of the existing roadway, bicycle, and pedestrian network is governed by the City; the following agencies are responsible for passenger rail transit and bus transit serving the station and surrounding area:

- RT operates light rail transit and fixed-route bus service.
- Amtrak operates long-distance intercity passenger rail and bus service.
- Capitol Corridor Joint Powers Authority operates intercity passenger rail service between the Bay Area and Sacramento region.

Traffic and transportation is addressed by regional and local plans and policies, as described in the following sections.

Regional. The *2035 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS 2035) (SACOG, 2015b) is the regional transportation plan for the SACOG region. MTP/SCS 2035 provides the basis for air quality conformity findings related to the CAA and determinations that the region complies with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with MTP/SCS 2035 could jeopardize its effectiveness in reducing air

pollution and GHGs. Consistency with the MTP/SCS 2035 is a basis for determining potential adverse impacts related to these environmental topics.

Local. Within the project study area, the General Plan (City, 2015) emphasizes the use of transit, walking, and bicycling. These modes have a priority over vehicle-related travel, because the core area of downtown is exempt from minimum performance standards related to vehicle delay and level of service (LOS), as noted in the following policy excerpt (City, 2015):

Excerpt of Policy M 1.2.2 Level of Service (LOS) Standard.

The City shall implement a flexible context-sensitive Level of Service (LOS) standard, and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure Vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour with the following exceptions described below and mapped on Figure M-1.

A. Core Area (Central City Community Plan Area) - LOS F allowed

Part of the rationale for allowing LOS F in the downtown core is that this area is well served by multiple modes including bus and rail transit, bicycling, and walking. Expanding and improving transit service at the SVS will help further the City's goals to expand transit use to and from downtown, thereby reducing demand for vehicle travel.

4.16.2 Impact Analysis

- a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

LESS-THAN-SIGNIFICANT IMPACT. The project is part of a larger long-term plan for the expansion and enhancement of public transit in downtown Sacramento that is included in MTP/SCS 2035 and the General Plan (City, 2015). The specific project elements and other changes to the SVS are identified on pages 66 and 67 in Appendix A-1 of the MTP/SCS 2035. The General Plan contains Goals M 3.1 and M 3.2 plus supporting policies M 3.1.1-3 and M 3.2.1-5 related to the expansion and enhancement of public transit including specific improvements at the SVS (referred to as the Sacramento Intermodal Transportation Facility in the General Plan). This information indicates that the project is an important part of completing the future public transit network for the region that has been included in the MTP/SCS 2035 as part of the regional solution for achieving air quality conformity and reducing GHG emissions.

Some project elements would change traffic operations at adjacent intersections and how trains, vehicles, bicyclists, and pedestrians access and travel through the study area. The changes would largely be due to modifications of the transportation network to improve transit service and accommodate improved access to transit stations consistent with City and RT policies. Furthermore, all of the modifications will be constructed to City and RT design standards. In some circumstances, design

tradeoffs may involve prioritizing transit, walking, or bicycling modes that could result in increased delays to drivers. Specifically, the construction of a new loop track through the SVS would include new light rail track on the western leg of the 7th Street and F Street intersection, which would result in new light rail movements through this intersection. Accommodation of these new light rail movements would require modifications to the existing traffic signal and could result in additional delay for motor vehicles at this location (see Appendix C for details regarding traffic operations with the project in place). According to the General Plan, transit, bicycle, and pedestrian travel in the downtown core is prioritized over vehicle traffic, as noted above in Policy M 1.2.2. Therefore, the project would not conflict with applicable transportation plans or policies.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

NO IMPACT. The project is located in Sacramento County, which does not have a congestion management plan. Therefore, no conflicts would occur.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NO IMPACT. The project does not include features that would alter air traffic patterns or air travel. Therefore, no safety risks would occur.

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

NO IMPACT. All project elements will be designed and constructed in compliance with City and RT design standards. Therefore, no increase in hazards or incompatible uses would occur.

e. Result in inadequate emergency access?

NO IMPACT. All project elements will be designed and constructed in compliance with City and RT design standards. Therefore, emergency access to and from the stations and through the project area where light rail service would be provided would remain adequate.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

NO IMPACT. Items (a) and (c) above note that this project is part of implementing planned improvements for public transit in the study area. Furthermore, all project elements will be designed and constructed to City and RT design standards. Therefore, no conflicts with adopted plans or programs would occur, and no decrease in the performance or safety of transit, bicycle, or pedestrian facilities would be expected.

4.17 Utilities and Service Systems

Would the Project:		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable RWQCB?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.17.1 Setting

The project area is located in the northwestern portion of downtown Sacramento. The project area consists of undeveloped areas and urban uses, including transportation infrastructure, housing, and office buildings. Undeveloped portions of the project area are part of the larger Railyards brownfields site, which has been undergoing site remediation (e.g., soil cleanup) activities since 1988 and is currently approved for redevelopment in most areas. Utility systems and services in the project area will comply with improvement plans of the Railyards Specific Plan (City, 2007) and the SVS program.

4.17.2 Impact Analysis

a. Exceed wastewater treatment requirements of the applicable RWQCB?

NO IMPACT. The project does not have facilities or uses that require water or wastewater disposal services. Because the project would not increase demand for water or wastewater utilities, it would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, there would be no impact.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NO IMPACT. The project does not include facilities or uses that would require water or wastewater disposal services. No restroom facilities would be installed at the SVS or Railyards Station. Because the project would not increase demand for water or wastewater utilities, there would be no impact.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

LESS-THAN-SIGNIFICANT IMPACT. As described above in Section 4.9, Hydrology and Water Quality, the project area is in a portion of the City served by a combined sewer system. The project would generate a minor amount of new stormwater associated with new impervious surfaces. Although portions of the project area are already impervious, primarily along H Street and at the 7th Street and F Street intersection, new impervious surfaces would be created along the loop track and at the SVS and Railyards Stations. Approximately 2 acres of newly paved areas would be added as part of the project, including the potential pedestrian access improvements near the SVS Station. The potential runoff would be small compared to the infiltration capacity of the large adjacent areas that have no impervious surfaces. In addition, there is a stormwater detention basin adjacent to the SVS area (Railyards Lot 40), and further storm drainage improvements are planned as part of several ongoing projects, such as F Street construction west of 7th Street.

Stormwater runoff quantities associated with the project are unknown, but would be small in context of local infiltration capacity and drainage infrastructure. Potential changes in drainage would be further addressed through compliance with existing regulatory programs including the *Sacramento Region Stormwater Quality Design Manual* (City of Citrus Heights et al., 2014). For these reasons, drainage impacts would be less than significant.

d. Has sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

LESS-THAN-SIGNIFICANT IMPACT. Most project elements would not require water. For example, no restroom facilities would be installed at the SVS or Railyards Station. Water would be required for drinking fountains and to irrigate landscaping installed at the stations and along pedestrian pathways, and water would be used during construction for dust control. Water needs for these uses would be small, and would not require new or expanded water entitlements from the City. Therefore, the impact would be less than significant.

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

NO IMPACT. See response for item (a) above.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

LESS-THAN-SIGNIFICANT IMPACT. The City provides solid waste disposal services to residents and businesses. Solid waste within the City is disposed of primarily at the Kiefer Landfill in southeastern Sacramento County. The landfill currently uses approximately 250 acres of its permitted 660-acre capacity. The project would generate solid waste from daily trash collection at the SVS and Railyards Stations. The amount of solid waste collected from the two stations would be negligible and would not exceed Kiefer Landfill's permitted capacity; therefore, impacts would be less than significant. For a discussion of construction and demolition waste, see item (g) below.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

LESS-THAN-SIGNIFICANT IMPACT. As discussed for item (f) above, the Kiefer Landfill is the main landfill that would receive solid waste generated from the SVS and Railyards Stations. Project construction activities would generate solid waste primarily from demolition of existing streetscape features (e.g., asphalt and concrete) and utilities (e.g., traffic signals). This type of construction debris would be generated primarily along the north side of H Street (approximately 800 feet, or two city blocks) and at

the 7th Street and F Street intersection (approximately 500 feet of paved area). Typically, metals from utility demolition are recycled, and inert construction debris such as asphalt and concrete is recycled; for example, ground asphalt is typically reused as road base and subbase material. There are seven construction debris recyclers and inert fill disposal operators in the County (California Department of Resources Recycling and Recovery, 2015). Because the expected amount of construction debris would be recycled or beneficially reused, impacts would be less than significant.

4.18 Mandatory Findings of Significance

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

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

LESS-THAN-SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. As discussed in this IS, especially Section 4.4, Biological Resources, and Section 4.5, Cultural Resources, impacts on all environmental resources were deemed to result in either no impact, a less-than-significant impact, or less than significant with mitigation incorporated. As a result, the project with proposed mitigation measures would not create environmental effects that would degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, or eliminate important examples of major periods of California history or prehistory.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? “Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?**

LESS-THAN-SIGNIFICANT IMPACT. As indicated throughout this IS, impacts on all environmental resources were deemed to result in either no impact, a less-than-significant impact, or less than significant with mitigation incorporated. In addition, the project is consistent with all local plans and policies including the General Plan (City, 2015) and the Railyards Specific Plan (City, 2007); these plans include the SVS project elements as part of the overall buildout of land use and transportation facilities in the project area. As a result, the project with proposed mitigation measures would not create environmental effects that would have impacts that are individually limited but cumulatively considerable.

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

LESS-THAN-SIGNIFICANT IMPACT. As indicated throughout this IS, especially Section 4.2, Air Quality; Section 4.6, Geology and Soils; Section 4.8, Hazards and Hazardous Materials; Section 4.9, Hydrology and Water Quality; and Section 4.12, Noise, impacts on all environmental resources were deemed to result in either no impact, a less-than-significant impact, or less than significant with mitigation incorporated. As a result, the project with proposed mitigation measures would not create environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

List of Preparers

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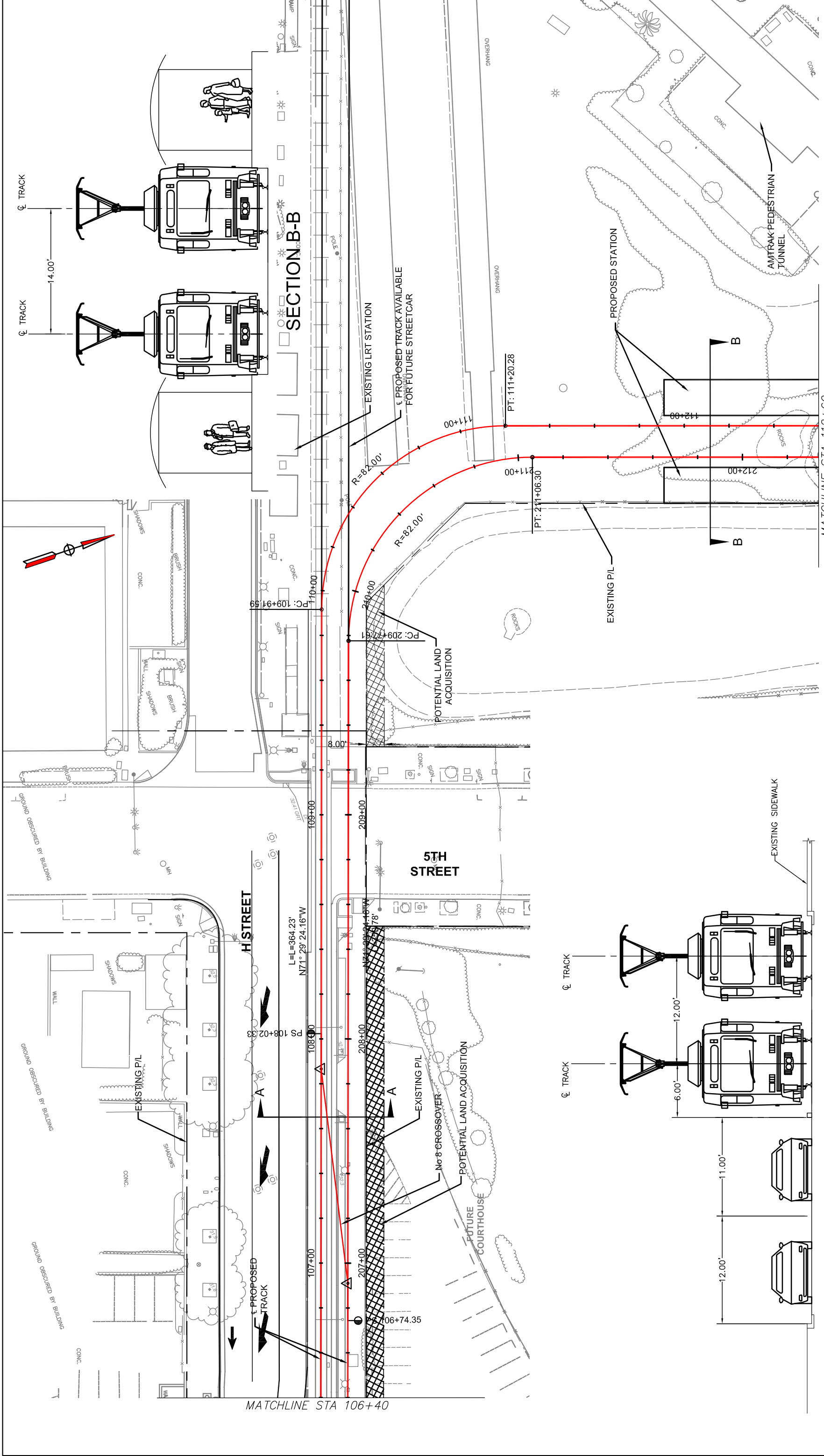
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Appendix A
Loop Track Side Boarding Option



SECTION A-A

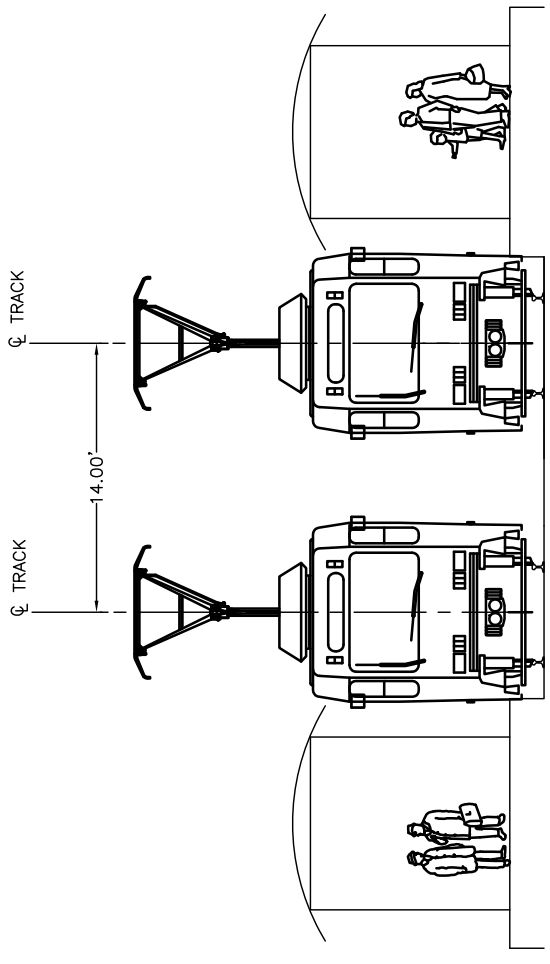
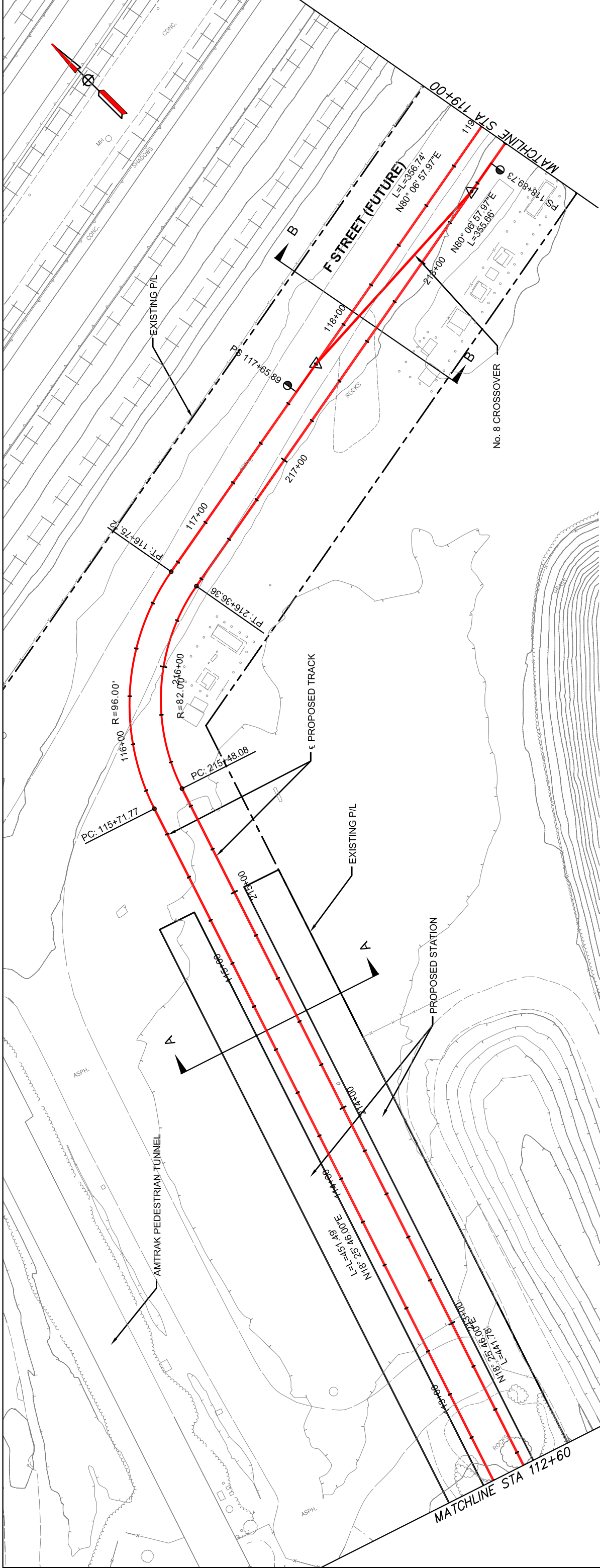
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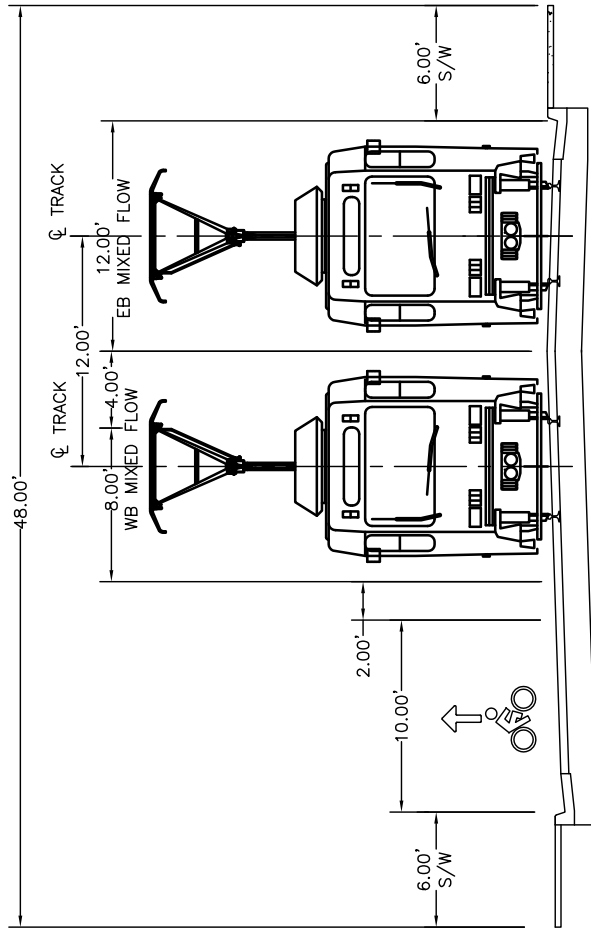
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SECTION A-A



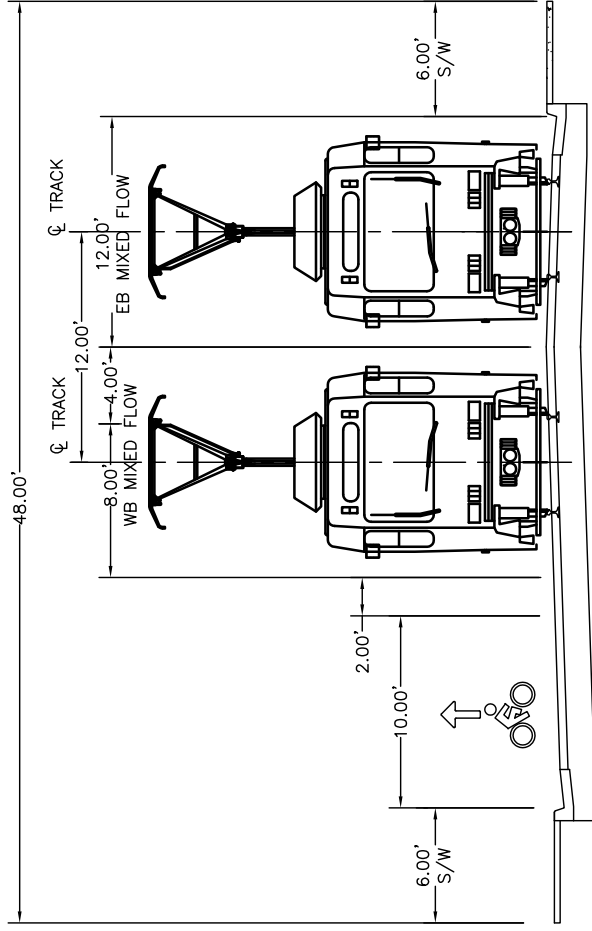
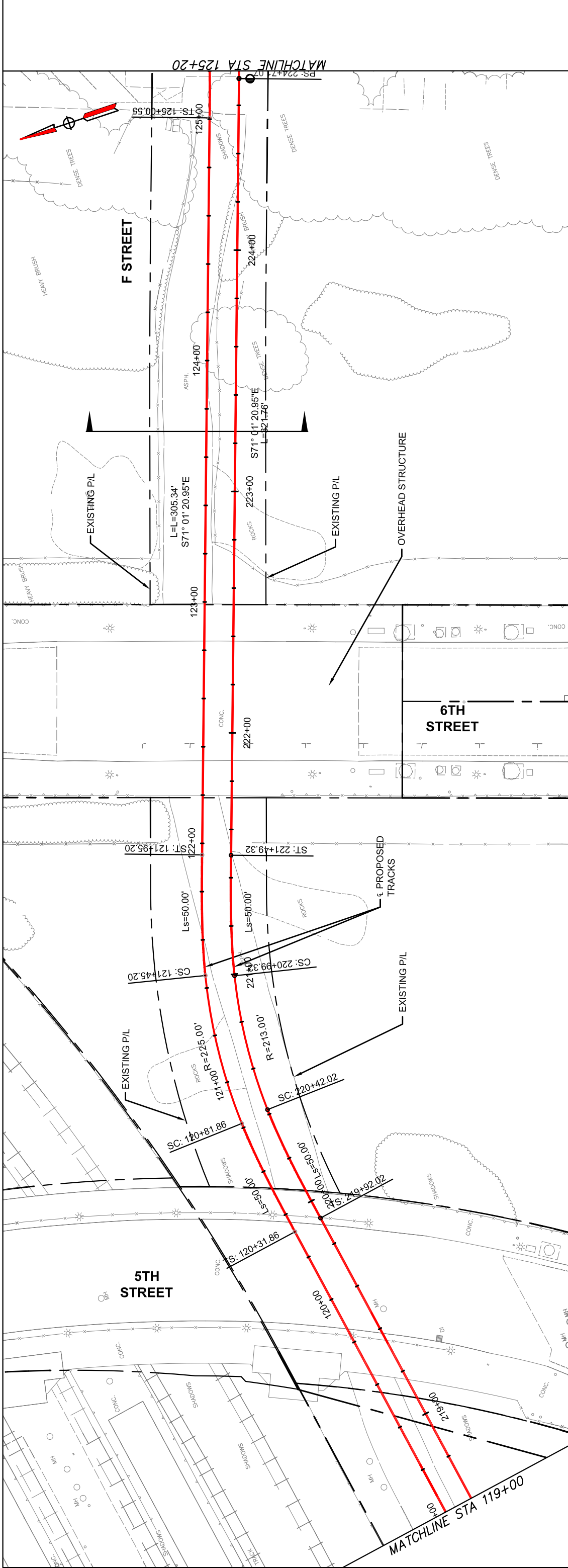
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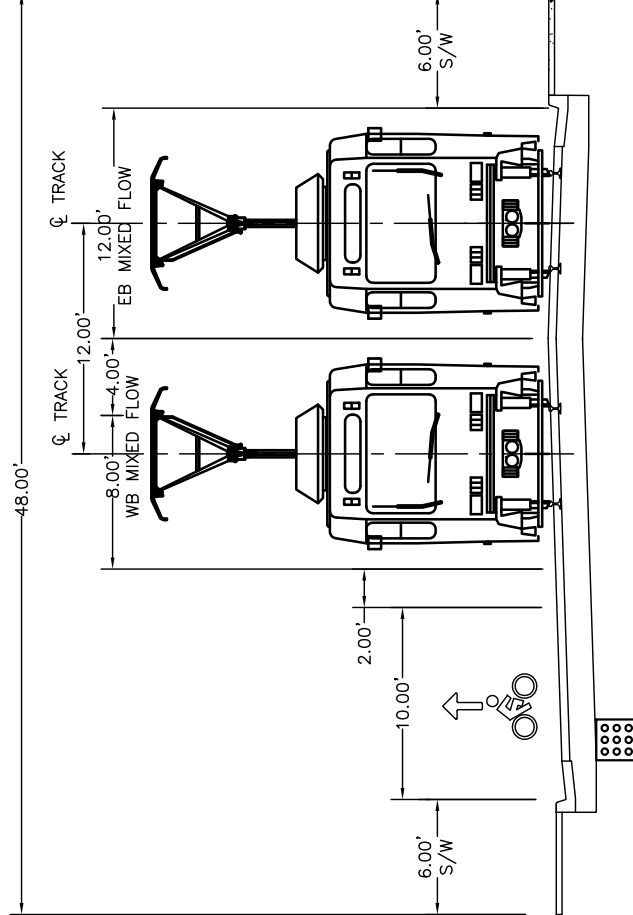
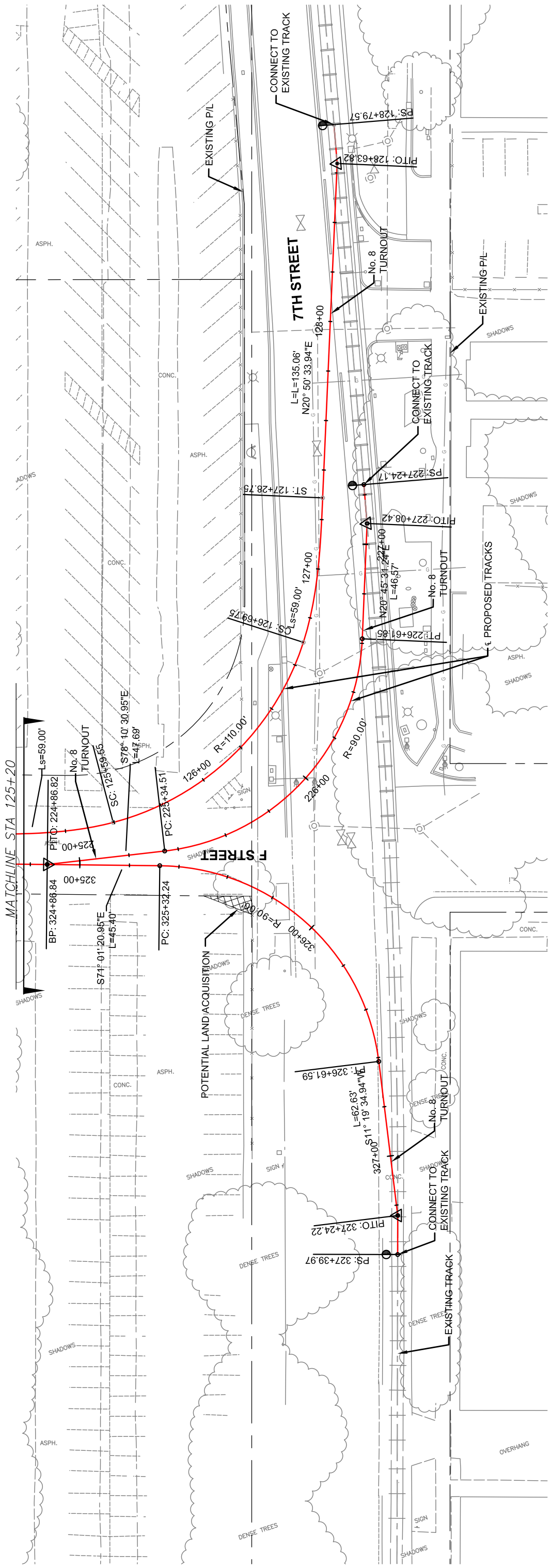
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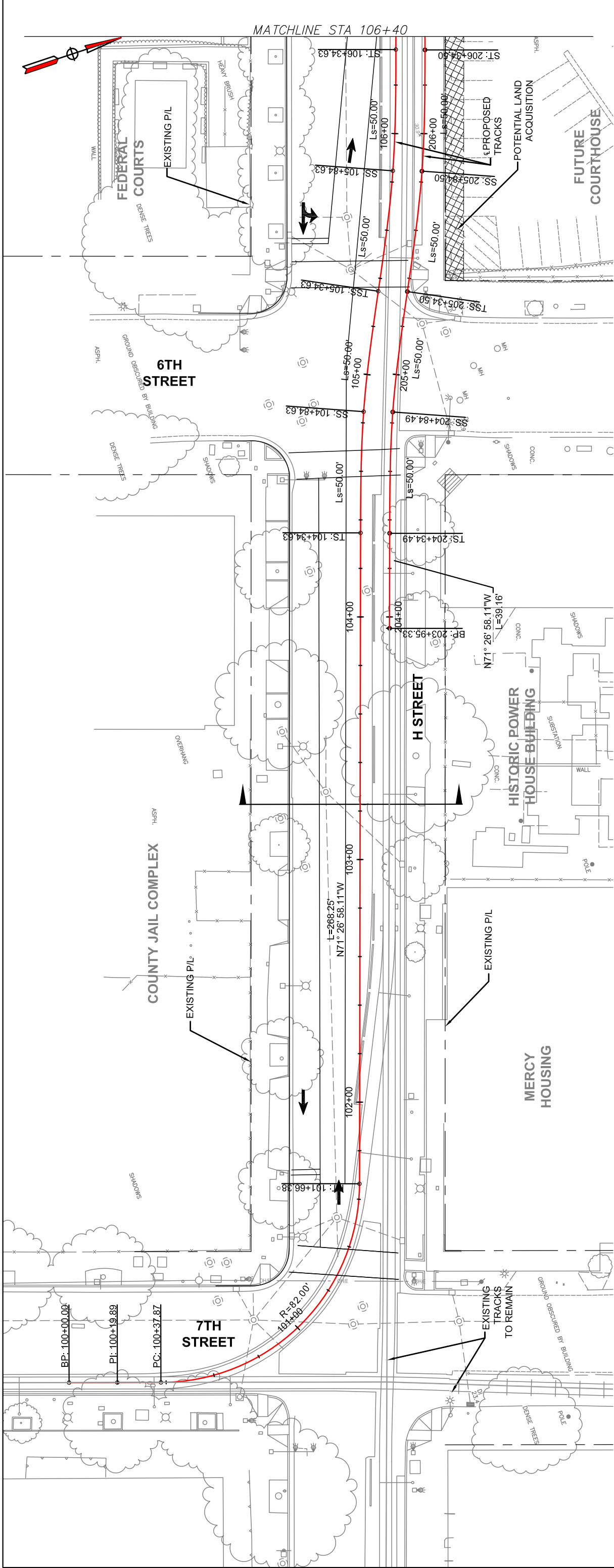
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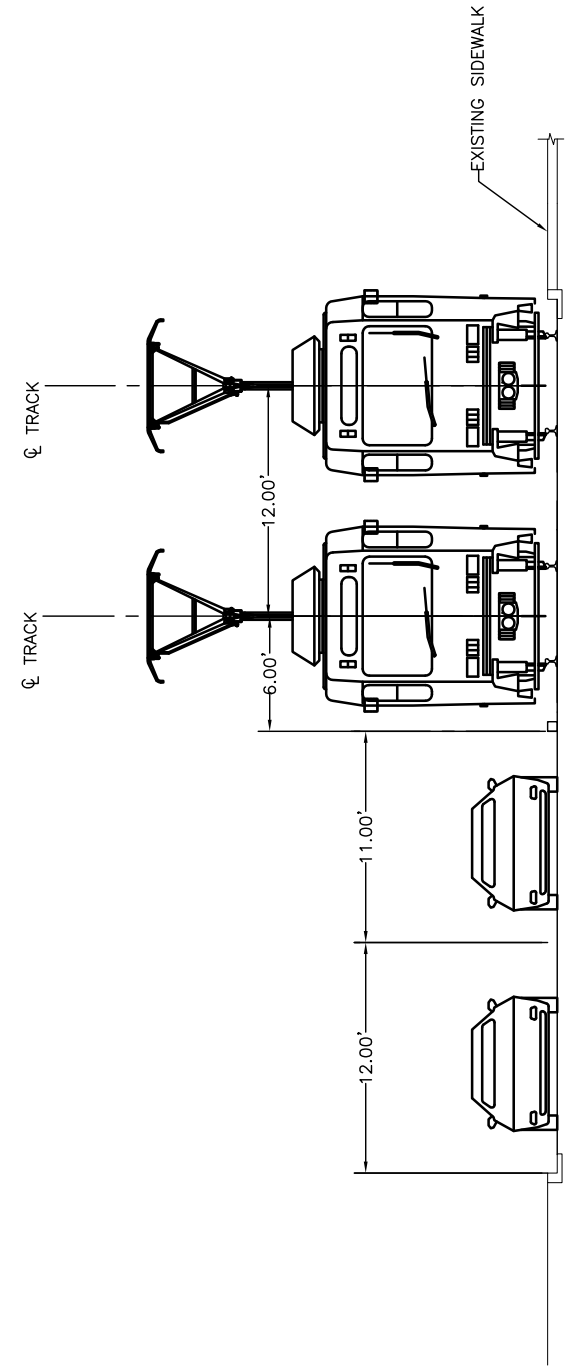
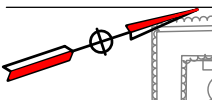
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Appendix B
Loop Track Center Boarding Option



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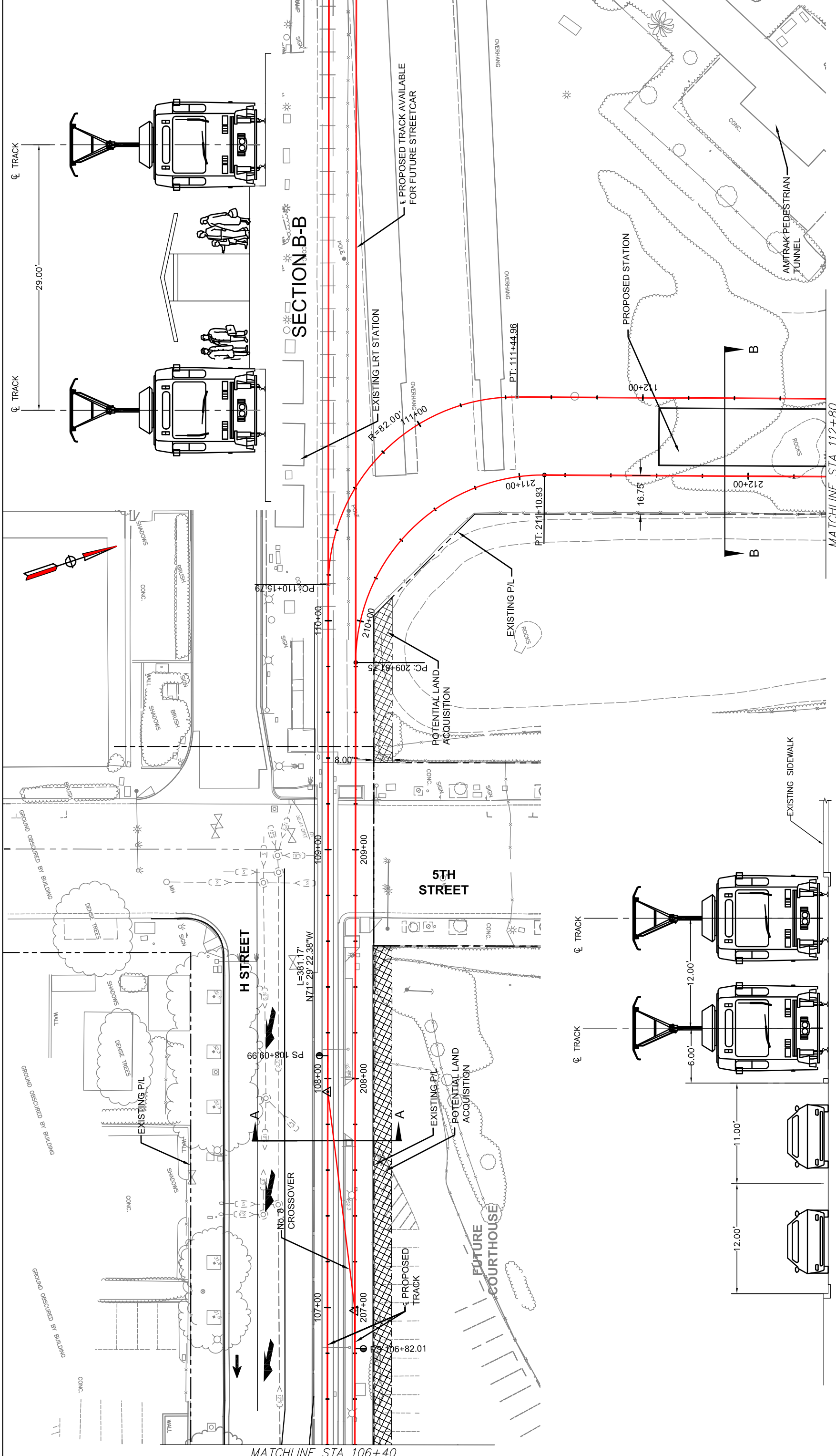
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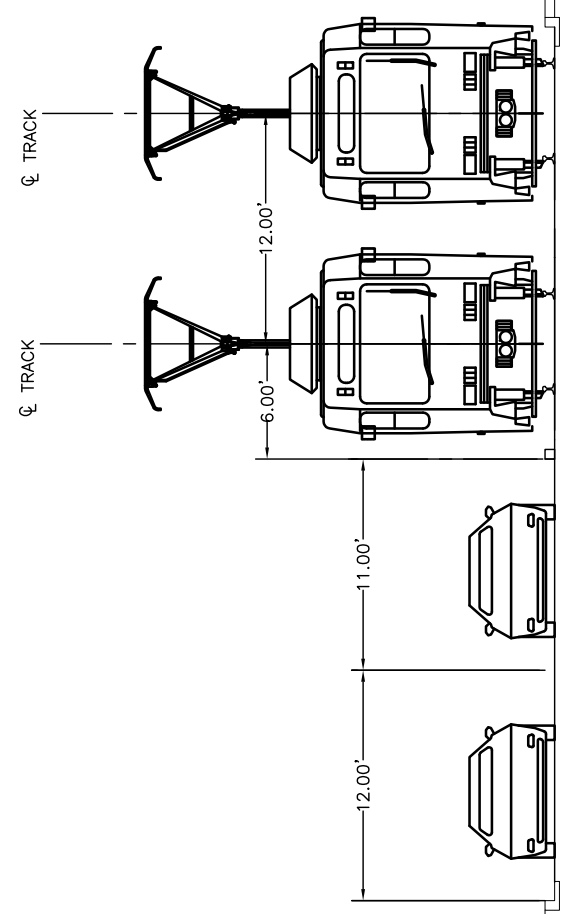
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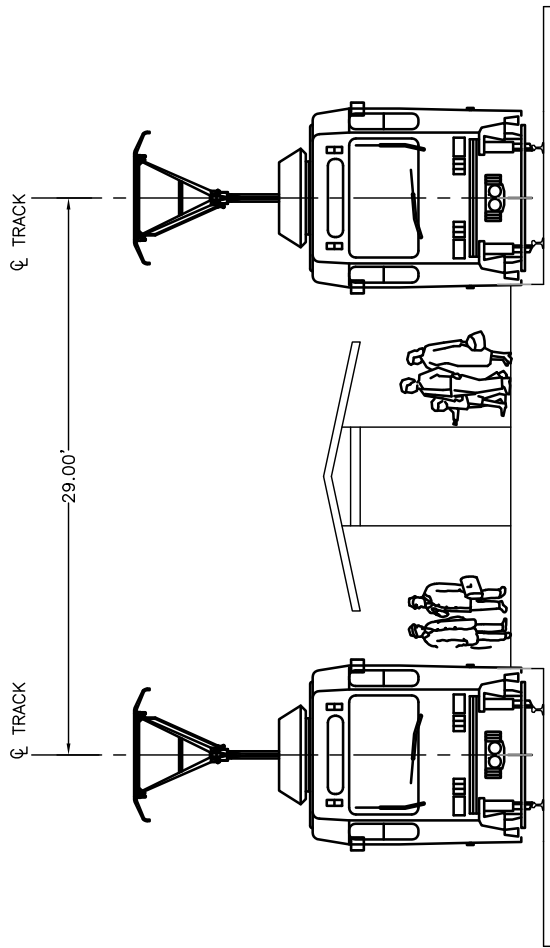
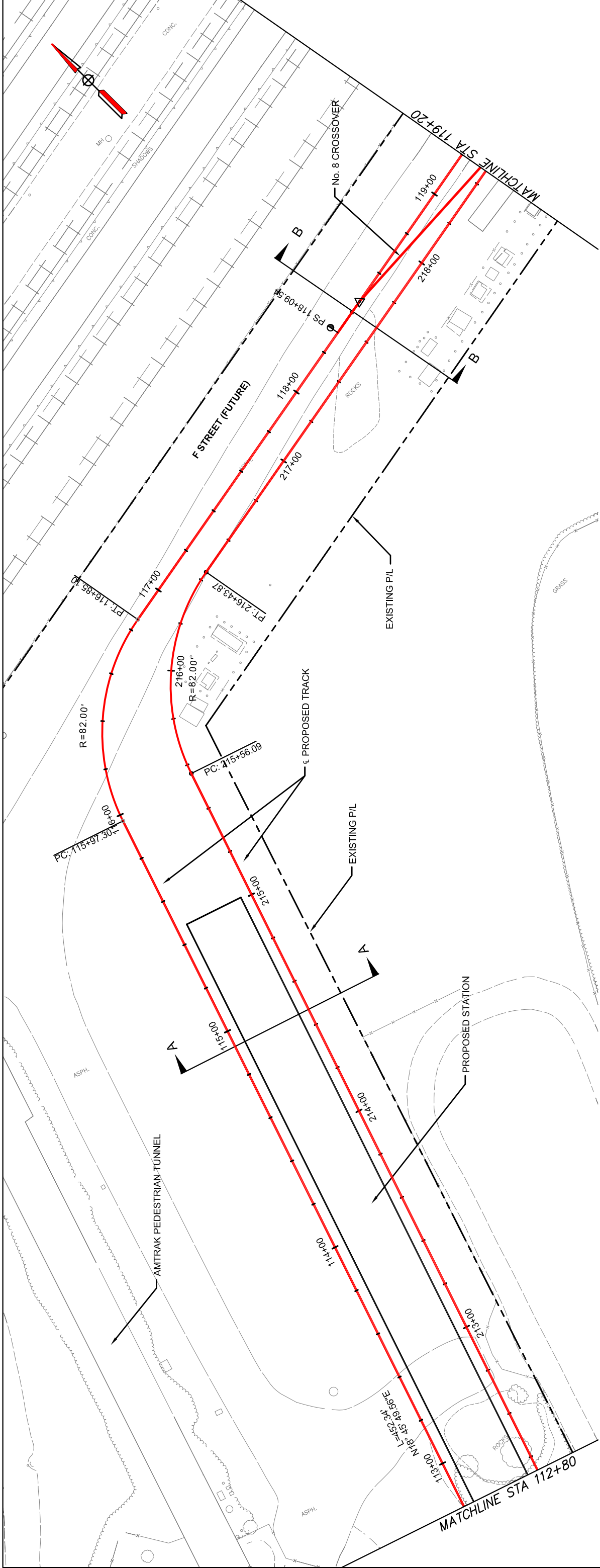
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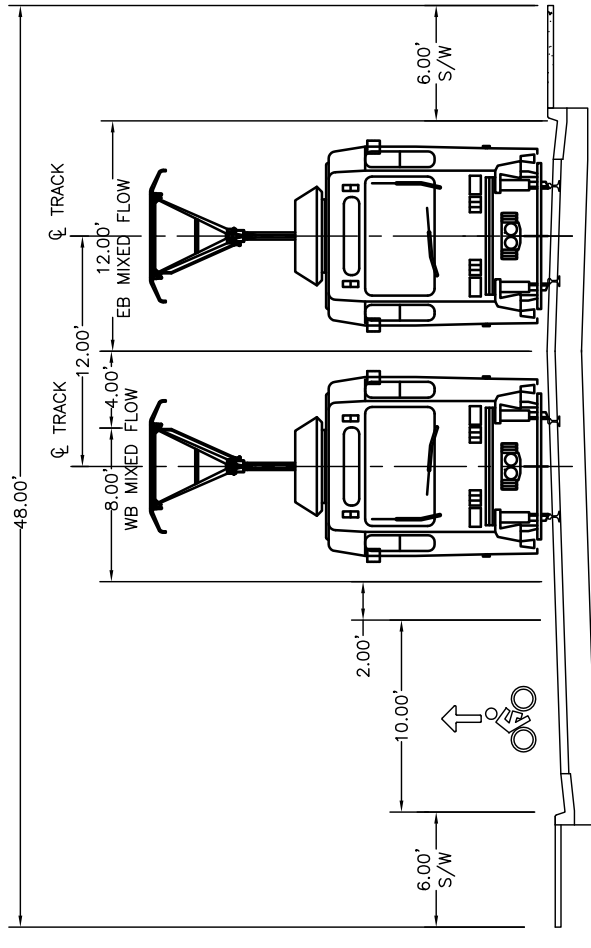
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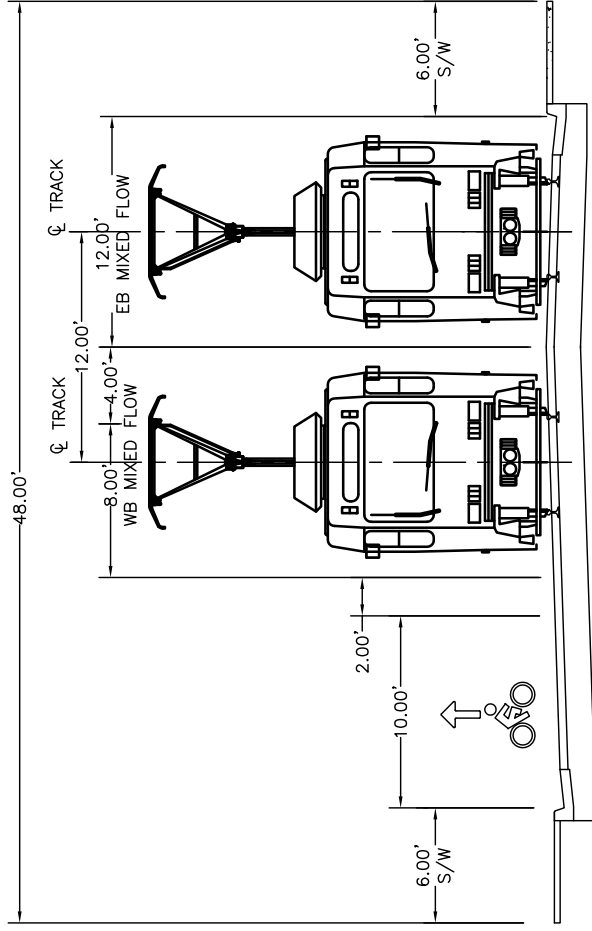
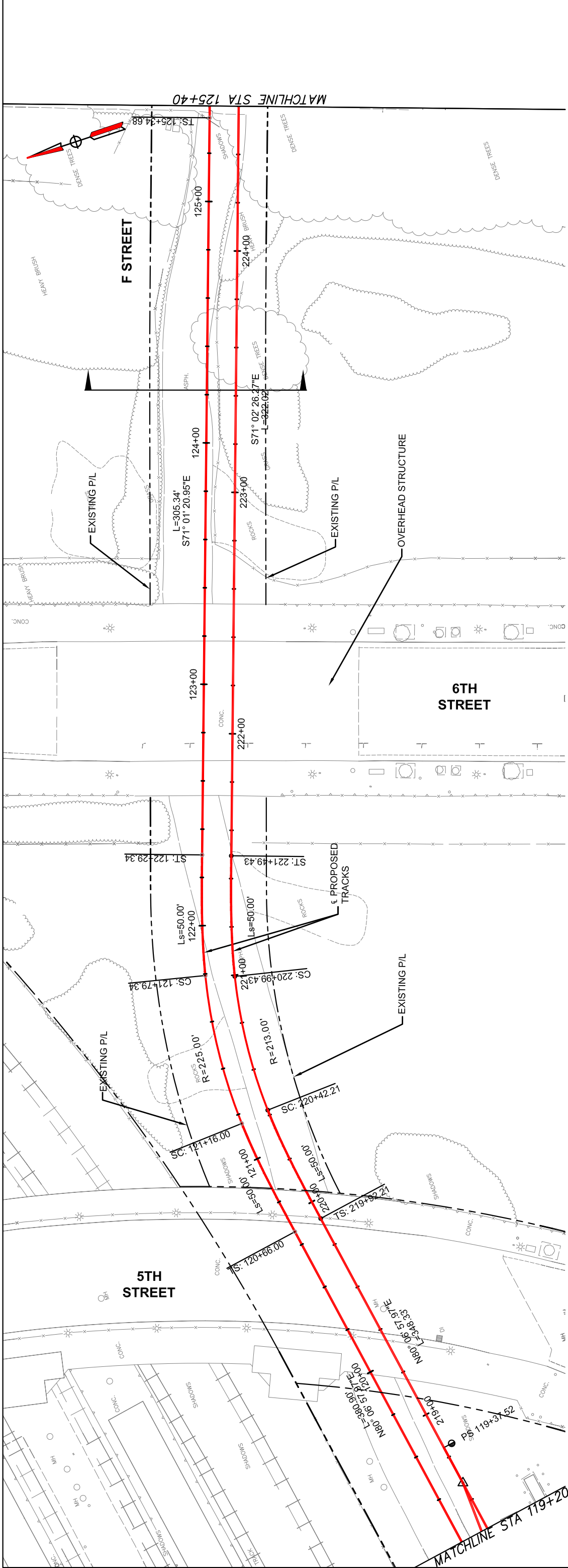


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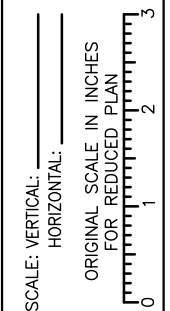
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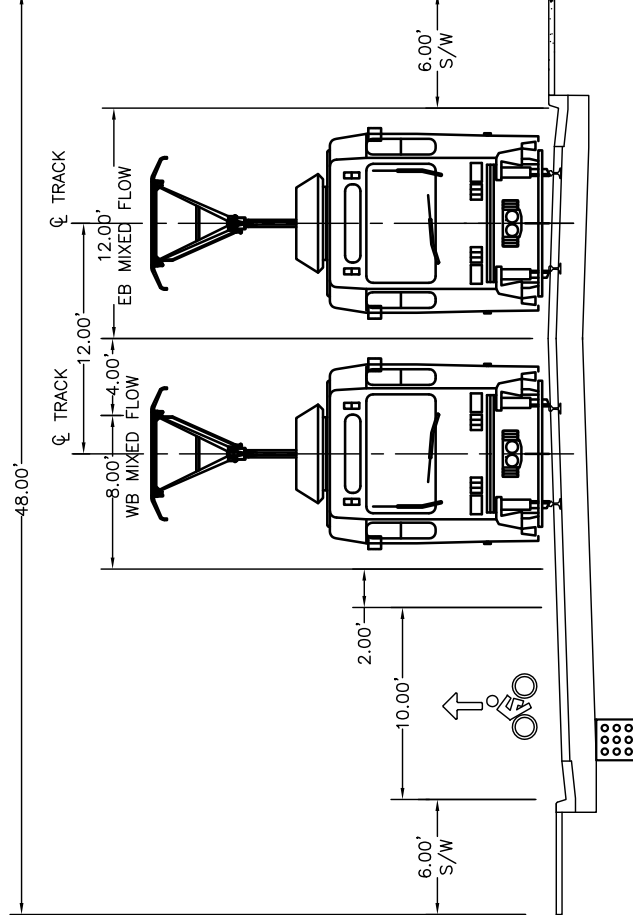
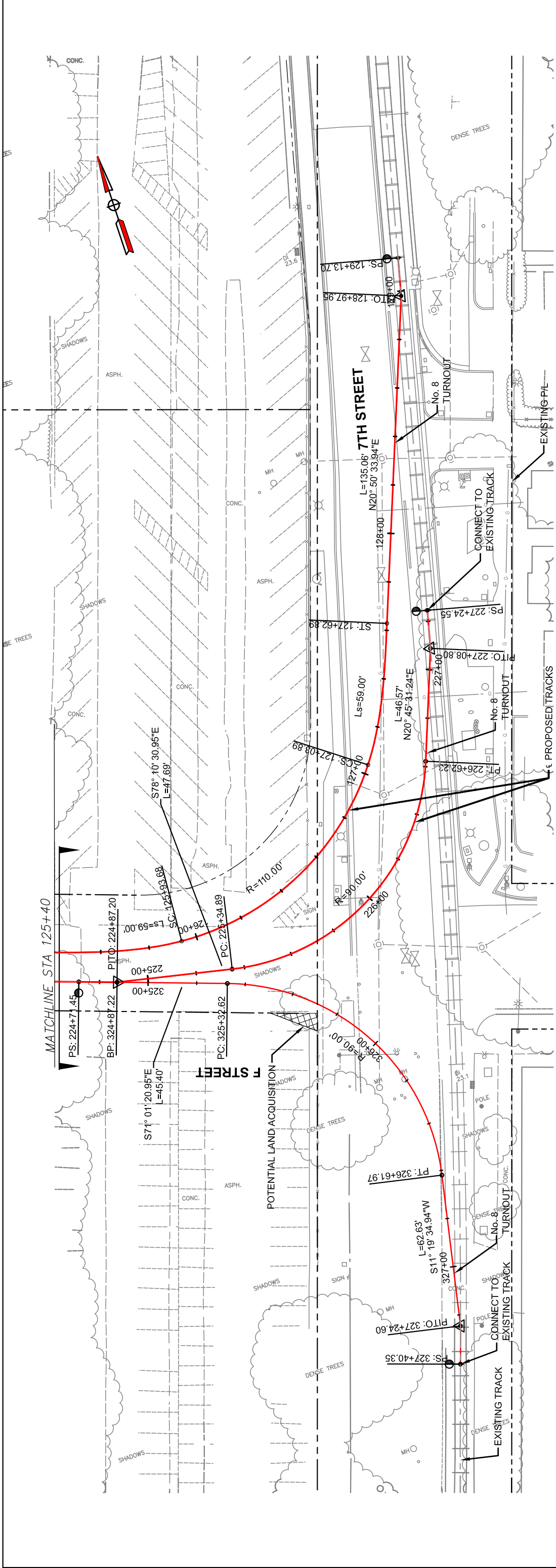
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Appendix C
Sacramento Green Line Project –
Sacramento Valley Station Area
Transportation Analysis

MEMORANDUM

Date: March 1, 2016

To: Jeff Damon – Sacramento Regional Transit District
Rod Jeung – AECOM

From: David Carter & Neil Smolen – Fehr & Peers

Subject: Sacramento Green Line Project – Sacramento Valley Station Area Transportation Analysis

RS13-3183

This memorandum documents the transportation operations analysis conducted for the segment of the Green Line located in the vicinity of the Sacramento Valley Station (SVS). This analysis was conducted in coordination with the Sacramento Regional Transit District (RT) and the City of Sacramento.

PROJECT DESCRIPTION

The RT Green Line currently travels between downtown Sacramento on the south and Township 9 on the north via an existing alignment along 7th Street north of G Street and along both 7th Street (southbound) and 8th Street (northbound) south of G Street.

The proposed project includes a new light rail transit (LRT) station (that would replace the existing Gold Line station) in a north-south orientation west of 5th Street and north of H Street to accommodate planned streetcar service and tie in with future improvements to the SVS. As part of the proposed project, the Green Line would be rerouted from its existing alignment between F and H Streets to form a new SVS loop track, which would replace the existing Gold Line service terminus. At the northern end of the loop, the new alignment would route the Green Line onto a planned extension of F Street at the intersection of F Street/7th Street, and at the southern end of the loop the alignment would enter and exit the roadway network at the intersection of H Street/5th Street. Additionally, double-tracking of the existing single-track LRT is planned as part of the project on H Street between 5th Street and 7th Street.

The proposed project also includes minor modifications to the Gold Line alignment to allow for access to the new Sacramento Valley LRT Station. Under the proposed project, the Gold Line would follow its existing



alignment along H Street to the new Sacramento Valley LRT Station, upon which the Gold Line would reverse directions and exit the new LRT station in the direction where it entered utilizing the planned double track.

DEVELOPMENT OF THE BASELINE PLUS PROJECT SCENARIO

Through coordination with RT and the City of Sacramento, Fehr & Peers developed a set of assumptions to incorporate into the near-term “baseline plus project” analysis of the Green Line SVS project.

The following new roadways are assumed open under the near-term baseline plus project analysis:

- 5th Street between H Street and Railyards Boulevard.
- 6th Street between H Street and Railyards Boulevard.
- G Street between 5th Street and 7th Street.
- F Street between the Sacramento Valley Station and 7th Street, including undercrossings at 5th and 6th Streets. This segment of F Street will accommodate automobiles, trucks, buses, and the new alignment of the Green Line in mixed-flow traffic. The extension of F Street west of 7th Street also includes a new two-way cycle track located on the north side of the roadway.
- Railyards Boulevard between Jibboom Street and 7th Street.

The following roadway modification is assumed in place under the near-term baseline plus project analysis:

- H Street converted from one-way to two-way traffic between 5th Street and 12th Street. This conversion allows for the planned addition of Blue Line LRT on H Street between 8th Street and 12th Street, replacing existing Blue Line service on K Street three blocks to the south.

In addition to the proposed project, the following transit projects are assumed in place under the near-term baseline plus project analysis:

- The realignment of Blue Line LRT service to H Street from K Street between 8th Street and 12th Street.
- Streetcar service between West Sacramento and Midtown Sacramento (i.e., Downtown/Riverfront Streetcar). Within the study area, this service would share the proposed Green Line alignment along H Street to the east of 5th Street, and would operate on exclusive right-of-way immediately west of 5th Street.

As a result of including the above transportation improvements in the baseline plus project analysis, the following modifications to lane configurations were made to the geometry of study intersections (see **Figure 1** for the resulting lane configurations):



H Street/5th Street (Int. 1)

- Conversion of 5th Street from one-way to two-way between H Street and I Street. The resulting northbound approach at the intersection of H Street/5th Street would have a left-turn lane and shared through/right lane.
- Conversion of H Street from one-way to two-way traffic. This would result in a shared left/through/right lane on the eastbound and westbound approaches to the intersection.

H Street/6th Street (Int.2)

- Conversion of H Street from one-way to two-way traffic. This would result in a left-turn lane and a shared through/right lane on the eastbound approach, and a shared left/through/right lane on the westbound approach to the intersection.

G Street/7th Street (Int. 4)

- The eastbound approach is assumed as one left-turn lane and one right-turn lane.
- Conversion of the westbound approach from dual left turn lanes and single right turn lane to one left-turn, one through, and one right-turn lane.

F Street/7th Street (Int. 5)

- The eastbound approach is assumed as a shared left/through/right lane.
- The southbound approach includes a second stop bar set back from the intersection to hold traffic away from the intersection and allow for trains to navigate the intersection as specified in plans provided by RT. The signal timing at the intersection allows for all modes to clear the intersection prior to and during preemption.
- The planned two-way cycle track on F Street ends just west of the 7th Street/F Street intersection and would not cross the LRT tracks. The signal timing does not include a separate phase for bicycle movements. Upon reaching the end of the planned cycle track, bicycles routes are assumed as follows:
 - Bicycles continuing north on 7th Street use the existing sidewalk on the west side of the street with designated bike route signage (sidewalk is marked as an established bike route, as allowed in Sacramento Municipal Code 10.76.010).
 - Bicycles continuing south on 7th Street enter the intersection from the northwest corner in coordination with the southbound through phase.
 - Bicycles continuing east on F Street enter the intersection from the northwest corner and utilize a two-stage crossing, first crossing F Street in coordination with the southbound



through phase and then crossing 7th Street in coordination with the eastbound through phase.

To account for all of the above changes to intersection geometrics, modifications were made to the traffic signal timing plans as appropriate to account for additional intersection approaches, motor vehicle turning movements, train movements, pedestrian crossings, and bicycle facilities.

The most recent version of the SACMET base year regional travel demand model (TDM), developed and maintained by SACOG, was used to forecast traffic volumes for the baseline plus project scenario. As part of the forecasting process, edits were made to the roadway network in the model to account for the above assumptions. Volume outputs from the model were then carried through the “difference method” process, a forecasting procedure to account for potential differences between the base year model and existing traffic counts. The forecasting procedure is as follows:

Baseline Plus Project Traffic Forecast = Existing Volume + (Base Year with Edits TDM Volume – Base Year without Edits TDM Volume)

The resulting forecasts used in this analysis are consistent with on-going Railyards Specific Plan Baseline No Project scenario analysis.¹ However, due to the unique parameters required by the simulation software (Vissim) used for this analysis, additional volume adjustments were made. *Vissim* is a microsimulation software package that is capable of simulating all travel modes with a high level of detail. Required adjustments to the Railyards Baseline volumes include additional volume balancing between study intersections, adjustments to bicycle and pedestrian volumes to account for SVS access improvements, and increasing volumes at select turn movements from volumes analyzed as part of the Railyards Specific Plan baseline evaluation.

ANALYSIS RESULTS

Figure 1 displays the baseline plus project roadway network, study intersections, and planned realignment of the Green Line within the downtown Sacramento study area, along with the intersection turning movement volumes, traffic controls, and lane configurations at all study intersections. **Table 1** displays the intersection delay and LOS results of the baseline plus project analysis of the Sacramento Valley Station study area.

¹ Assumptions included in this scenario were discussed and agreed to by City staff during a meeting held on November 12, 2015, and were subsequently confirmed via an e-mail exchange between RT and the City dated November 12-13, 2015.



**TABLE 1:
 PEAK HOUR INTERSECTION OPERATIONS – BASELINE PLUS PROJECT CONDITIONS**

Intersection	Traffic Control	Peak Hour	Baseline Plus Project Conditions	
			Delay	LOS
1. H Street / 5 th Street	Signal	A.M.	51	D
		P.M.	43	D
2. H Street / 6 th Street	Signal	A.M.	18	B
		P.M.	18	B
3. H Street / 7 th Street	Signal	A.M.	36	D
		P.M.	29	C
4. G Street / 7 th Street	Signal	A.M.	33	C
		P.M.	31	C
5. F Street / 7 th Street	Signal	A.M.	20	C
		P.M.	18	B

Notes: For signalized intersection, average intersection delay is reported in seconds per vehicle for all approaches.

Source: Fehr & Peers, 2016.

As shown in Table 1, all study intersections operate at LOS D or better during both the AM and PM peak hours. In accordance with the *Sacramento 2035 General Plan* Policy M 1.2.2, LOS F is allowed at intersections within the Central City, which encompasses the SVS study area, and therefore LOS D is considered an acceptable operating condition.

KEY FINDINGS

This analysis concludes that all study intersections would operate with moderate levels of delay during the AM and PM peak hours with the assumptions contained in this memorandum. In addition to the previously discussed intersection geometrics (which area also displayed in Figure 1), Fehr & Peers recommends investigation of the following operational strategies as part of the final design plans of the project:

F Street/7th Street (Int.5)

- Incorporating a second stop bar set back from the intersection on the southbound approach to hold traffic away from the intersection during LRT preemption. The signal at this stop bar would turn red only during LRT preemption.



- Incorporate appropriate clearance time into the traffic signal timing plans on the southbound and eastbound approaches during LRT preemption.
- Encouraging bicyclists exiting the cycle track and continuing east on F Street to cross the intersection in two phases, first via the southbound through phase and then via the eastbound through phase. Installation of a bike box on the eastbound approach of the intersection would help to encourage compliance with the intended routing and promote bicyclist safety. Fehr & Peers also recommends that appropriate signage be installed at this location directing bicyclists to cross the LRT tracks at a 90 degree angle.

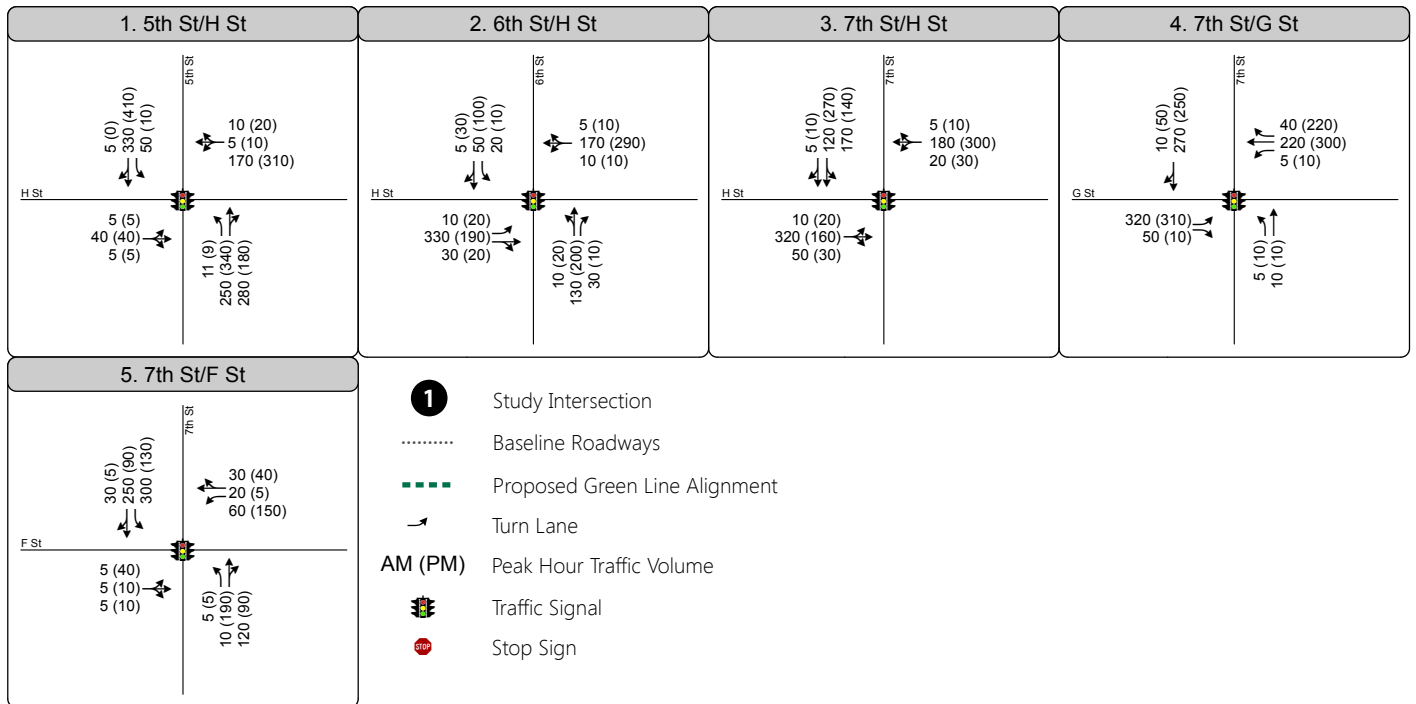
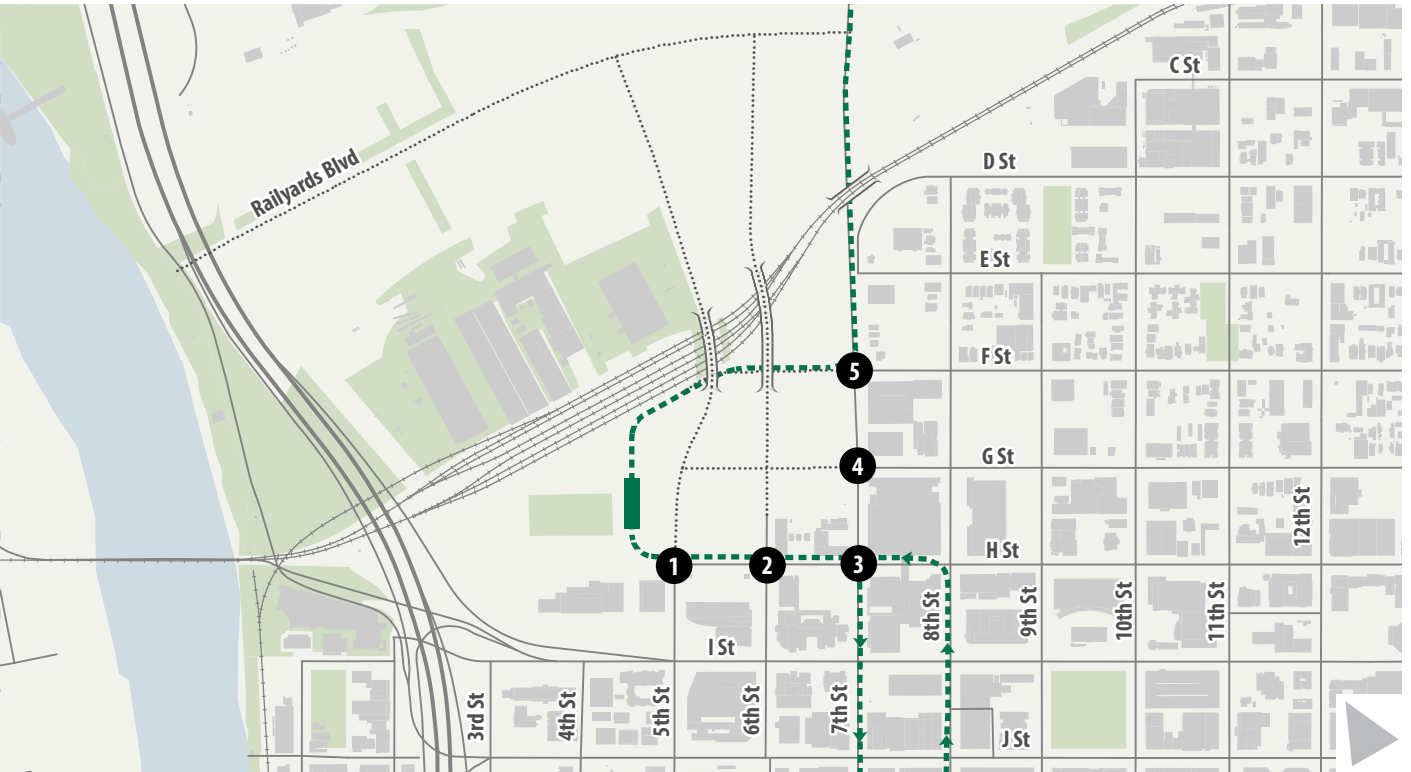


Figure 1
Peak Hour Traffic Volumes
and Lane Configurations -
Baseline Plus Project

