



Board Report

File #: 2019-0420, File Type: Project

Agenda Number: 26.

2nd REVISED
PLANNING AND PROGRAMMING COMMITTEE
JUNE 19, 2019

SUBJECT: LINK UNION STATION PROJECT

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. CERTIFYING the Final Environmental Impact Report (FEIR);
- B. AUTHORIZING the Chief Executive Officer (CEO) to file a Notice of Determination with the Los Angeles County Clerk and the State of California Clearinghouse;
- C. ADOPTING the:
 - 1. Findings of Fact and Statement of Overriding Considerations in accordance with the California Environmental Quality Act (CEQA) and
 - 2. Mitigation Monitoring and Reporting Plan (MMRP).

ISSUE

The Link Union Station (Link US) Project will transform how the commuter and intercity rail operates in Southern California with run-through capability that provides one-seat rides from San Luis Obispo to San Diego. The Link US Draft EIR was available for 45 days of public review from January 17, 2019 through March 4, 2019. Staff received a total of 634 comments of which over 75% of the public comments opposed the above-grade concourse and indicated the preference for the new modified expanded passageway or at-grade passenger concourse. In consideration of the public comments received and in coordination with California High Speed Rail Authority, California State Transportation Agency and Southern California Regional Rail Authority (also known as Metrolink) and Amtrak/LOSSAN, staff recommends that the Final EIR include a modified expanded passageway without the above-grade concourse and a revised up to 10 run-through track alignment without a loop

track.

DISCUSSION

Background

In November 2018, the Board approved staff's recommendations to designate the CEQA "Proposed Project" in the Link US Draft EIR with shared lead tracks north of Los Angeles Union Station (LAUS), an above-grade passenger concourse with a new expanded at-grade passageway, and up to 10 run-through tracks including a loop track. In addition, the Draft EIR also includes an analysis of the Build Alternative, at an equal level of detail as the Proposed Project, with dedicated lead tracks north of LAUS, an at-grade passenger concourse and up to 10 run-through tracks including a loop track. The No Build Alternative was also analyzed in the Draft EIR. The Draft EIR was available for a 45 day public review period from January 17, 2019 through March 4, 2019.

Final EIR Project Recommendations

The recommended actions certify the Link US Final EIR with a filing of a Notice of Determination (NOD) with the Los Angeles County Clerk and the State of California Clearinghouse (Refer to Attachment A- NOD). The Link US Final EIR project includes a modified expanded passageway without the above-grade concourse and a revised up to 10 run-through track alignment without a loop track (Refer to Attachment B- Link US FEIR Project). The FEIR project was analyzed under all CEQA issue areas both for construction (temporary) and operation phases, and was determined to have no impacts, less than significant impacts, or less than significant impacts with mitigation measures in 9 out of 12 issue areas for both construction and operation phases, and significant and unavoidable impacts in 3 issue areas (Air Quality and Global Climate Change, Noise and Vibration and Cultural Resources).

Passenger Concourse- Staff received a total of 634 public comments. Over 75% of public comments received opposed the above-grade concourse and preferred the new modified expanded passageway or the at-grade concourse, citing the following main concerns with the above-grade concourse:

- Increased passenger transfer times
- Negatively affect passenger circulation and ADA accessibility
- The need for the elevated portion of the above-grade concourse with the proposed expanded passageway
- Potential impacts on the historical character of Los Angeles Union Station

Therefore, in response to these public comments, staff recommends that the Final EIR Project includes a modified expanded passageway with transit and retail amenities and elimination of the above-grade passenger concourse. The expanded passageway will be modified from a width of approximately 100 feet to 140 feet in the Final EIR to include additional space for waiting areas, restrooms, retail, and other passenger amenities, while providing sufficient pedestrian capacity to meet the ridership of 200,000 passengers at LAUS by 2040. The new modified expanded passageway will provide similar transfer times and travel convenience as the existing passageway with enhanced pedestrian access and ADA accessibility to the platforms by replacing the existing

ramps with elevators and escalators along with retail and passenger amenities attributable to a world class transit terminal station.

The Link US project with the modified expanded passageway option is estimated to cost approximately \$2.3 billion in 2018 (with a 3% escalation factor) compared with the above grade passenger concourse with expanded passageway option at \$2.8 billion. The at-grade passenger concourse option is estimated to cost approximately \$3.3 billion in 2018 (with a 3% escalation factor). Therefore, the modified expanded passageway option provides the best value with the lowest cost (refer to Attachment C-Cost Comparison of the Passenger Concourse Options). Given today's market conditions with changing landscape on tariffs, the cost of construction and escalation rate may be higher. Staff will provide an updated total project cost once the environmental studies and 35% preliminary engineering design has been completed. As part of the 35% design of the modified expanded passageway, staff will develop a detailed construction phasing plan including passenger circulation and work closely with the current rail operators (Metrolink, Amtrak and Metro Rail).

Run-Through Tracks Alignment- Staff has been coordinating closely with project funding partners consisting of California State Transportation Agency (CalSTA), California High Speed Rail Authority (CHSRA), and Southern California Regional Rail Authority (SCRRA), to reduce the overall project impacts and improve interoperability between regional rail trains and future High-Speed Rail trains south of LAUS. The project funding partners have agreed to move forward with a combined run-through track structure between LAUS and First Street and remove the loop track from the run-through track alignment. Therefore, the new run-through track structure over the US 101 will support up to 10 run-through tracks without the northern loop track and will be designed to ~~include aesthetic treatments~~ improve the visual quality of the US 101 run-through track bridge structure. Staff will ~~continue to coordinate with City of Los Angeles~~ to identify additional funding and/or savings in coordination with the City of Los Angeles to further enhance the aesthetic treatments of the US 101 run-through track bridge structure. (Refer to Attachment D Preliminary Draft Bridge Aesthetic Concepts) The elimination of the loop track will allow for improved interoperability between regional rail and future high-speed rail (HSR) with a common regional rail and HSR structure east of Center Street, resulting in six fewer property acquisitions, avoid the need to realign and lower Commercial Street and the need for permanent closure of Vignes Street at Commercial Street. Therefore, staff recommends that the Final EIR Project include modifications to the run-through track alignment with the elimination of the loop track which will reduce the project footprint and associated property impacts south of US-101 freeway.

Operations Planning - On November 26 and 27, 2018, CalSTA, CHSRA and Caltrans held two all day workshops at Metrolink's offices to go over the operations planning for the combined run-through track structure without the loop track. The State presented and discussed the initial operations planning model results of the combined run-through track structure without the loop track with Metrolink. On February 20, 2019, Metrolink issued a memorandum to memorialize Metrolink's position and concurrence with a total of five (5) conditions on specific design considerations for the Link US Project at its current stage of 10% conceptual design, specifically the removal of the loop track and the required number of run-through tracks. (Refer to Attachment G Memorandum from Metrolink regarding the Link US project). Four of the five conditions will be carried forward into the 35% preliminary engineering design and final design efforts for Link US project, where feasible. The State will work with Metrolink on the remaining condition that is outside the Link US Project. Staff will

prepare a detailed construction staging plan and continue to work with Metrolink to develop an operating plan that provides a satisfactory level of on time performance (OTP) during construction including engaging a third party to conduct an independent operational analysis and network planning, if needed.

Active Transportation Improvements - The Final EIR includes new Class II bicycle facility-bike lanes on Commercial Street between Alameda and Center Streets, which improves the active transportation network in the Union Station area by completing an east-west connection in the network, consisting of new active transportation corridors on Alameda Street from Cesar Chavez Avenue to 1st Street (to be constructed by Metro's Alameda Esplanade and 1st/Central Station Improvement Projects) and Ramirez/Center Street from Vignes Street to 1st Street (to be constructed by Metro's 1st/Central Station Improvement Projects). In addition, the active transportation elements on Commercial Street at the Center Street intersection and could facilitate a future potential connection to the Proposed LA River Path near at Center Street, which can be connected to the active transportation network being constructed on Center Street/Ramirez Street to Vignes Street to the LAUS East Portal being constructed by Metro's 1st/Central Station Improvement Project providing a neighborhood connectivity. In lieu of the at-grade improvements, if additional funding is identified, a dedicated bicycle/pedestrian bridge over the US 101 connecting Patsaouras Bus Plaza with Center Street is also included in the Final EIR. Staff has been coordinating closely with the LA River Path, Alameda Esplanade and Alameda/US 101/El Monte Busway Project Study Report project teams to ensure consistency across various planning efforts. Coupled with other Metro active transportation plans and projects in the Union Station area, the Link US improvements will complete the active transportation network that is integrated with the LA River Path.

Furthermore, to enhance neighborhood connectivity consistent with the Los Angeles River Revitalization Master Plan, RIO Overlay District guidelines, LAUS Sustainable Neighborhood Assessment, City of Los Angeles Mobility Plan, Connect US, and Metro's LA River Path Project, Metro, in coordination with the City of Los Angeles to obtain necessary approval on the Link Union Station plans providing a minimum lane width of 10 feet and removal of street parking on Commercial Street, Metro can implement a new Class IV bicycle facility along Commercial Street from Alameda Street to Center Street by pavement striping and bollards with no additional right-of-way acquisition and no raised median will be required, enhancing neighborhood connectivity south of US-101 subject to Caltrans approval where Commercial Street intersects the existing on- and off-ramps. Due to the funding constraints on the Link US project, this upgrade is only feasible if City of Los Angeles is agreeable to work with Metro to ensure that the cost increase due to the upgrade is kept at a minimal. If additional funding is identified, a dedicated bicycle/pedestrian bridge over US-101 could be constructed in addition to ~~place of~~ new bicycle facilities along Commercial Street.

Lastly, staff will continue to coordinate with City of Los Angeles in regards to replacement of the Cesar Chavez bridge that provides an opportunity to widen Cesar Chavez Avenue that is directly under the bridge to support the future addition of bike lanes on Cesar Chavez Avenue if the City is interested in leading the effort to add an active transportation corridor on Cesar Chavez Avenue between the LA River and Alameda Street or beyond. Cesar Chavez Avenue is a heavily-used bus

corridor between Alameda Street and Lyon Street with over 10 Metro Local and Rapid Bus routes, LADOT Dash Bus and other regional bus routes, and a Flix Bus terminal at the north-west corner of Cesar Chavez and Vignes. Refer to Attachment E for the proposed Link US active transportation elements in the Union Station area.

Construction Access and Laydown/Staging Areas- The First 5 LA building located at 750 North Alameda Street (near the terminus of El Monte Busway) is a key project stakeholder that expressed concerns regarding the proposed use of an internal access for construction as described in the Draft EIR. In response to these concerns, staff recommends that the use of the internal access road during construction be removed. The primary construction access to the rail yard would be changed to the other entrance points along Cesar Chavez Avenue and Vignes Street to the LAUS campus. There are two laydown and construction staging areas identified in the Draft EIR are also proposed to be removed in the Final EIR because the associated properties are no longer feasible or available.

Mitigation Measures

The Final EIR includes a total of 47 mitigation measures during construction and operation phases. Metro is the Lead Agency under CEQA in implementing and monitoring the mitigation measures. A full description of the mitigation measures is included in the Mitigation Monitoring and Reporting Plan (MMRP). Staff recommends adopting the MMRP for the Link US Project (Refer to Attachment E).

Significant and Unavoidable Impacts

Implementation of the Final EIR project would result in significant and unavoidable impacts in the following issue areas: Air Quality, Noise, and Cultural Resources.

Air Quality- During construction, emissions would exceed the SCAQMD's daily criteria pollutant and localized significant thresholds, even after proposed mitigation measures are implemented. The proposed mitigation measures during construction include AQ-1 (Fugitive Dust Control) and AQ-2 (Compliance with US EPA's Tier 4 Exhaust Emission Standards for Off-Road Equipment).

Noise- During construction, daytime and nighttime noise levels would exceed FTA's construction noise guidelines at William Mead Homes and Mozaic Apartments, even after proposed mitigation measures are implemented. The proposed mitigation measures during construction include NV-2 (Employ noise-reducing measures during construction) and NV-3 (Prepare a community notification plan for project construction).

Cultural Resources- During and after construction, the project would cause a substantial adverse change in the significance of the following historical resources: Los Angeles Union Station including the Vignes Street Undercrossing and the Friedman Bag Company Building (currently occupied by Life Storage), even after proposed mitigation measures are implemented. The proposed mitigation measures before, during and after construction include HIST-1a (LAUS City of Los Angeles CHC review and consultation), HIST-1b (LAUS HABS-like documentation: historic resource documentation), HIST-1c (LAUS Restoration of the Existing Passenger Concourse), HIST-1d (LAUS Educational Exhibit), HIST-2 (William Mead Homes Consultation), HIST 3 (Friedman Bag Company-City of Los Angeles OHR review and consultation and HABS-like documentation), HIST-4 (North Main Street Bridge City of Los Angeles CHC review and consultation), HIST-5 (Archaeological Site CA-LAN-1575/H) and HIST-6 (Development of a Public Participation or Outreach Plan).

Statement of Overriding Considerations and Findings of Facts

Staff recommends to the Board to adopt the Findings of Fact and Statement of Overriding Considerations in accordance with the CEQA. Pursuant to Public Resources Code Section 21081(b) and State CEQA Guidelines Section 15093(a) and (b), the Metro Board is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

For the foregoing reasons, staff finds that the project's unavoidable significant environmental impacts are outweighed by these considerable benefits:

1. Improved intrastate, intercity, and local transit connectivity with Metrolink, Amtrak, and Metro Rail and future High-Speed Rail; Metro and municipal bus systems;
2. Improved regional connectivity with one seat rides from San Luis Obispo County to San Diego County;
3. Increased rail operational capacity by up to 63% to accommodate future demand and a new high speed rail system;
4. Reduced train idling times resulting in shorter wait times and fuel savings and emissions reductions per train with indirect contribution to cumulative benefits for the region, including a reduction of GHG emissions and Vehicle Miles Traveled in the region;
5. Enhanced passenger experience with new concourse, retail and other amenities and new expanded platforms that also accommodates passenger growth from current 100,000 passengers to 200,000 passengers a day along with enhanced mobility and accessibility;
6. Improved US-101 freeway and local roadways;
7. Generation of an estimated 4,500 temporary jobs per year over a 5-year construction period and an estimated 200 permanent jobs;
8. Enhancement of neighborhood connectivity with future connections from LAUS to the Los Angeles River;
9. Remediation of hazardous materials sites encountered during construction within the project area.

Outreach

During the Draft EIR 45-day public comment period, a total of 634 written comments were received from individuals, agencies, organizations and Native American tribes along with 16 verbal commenters received at the January 29, 2019 DEIR public hearing. The public comments generally are related to the following subject areas:

1. Passenger concourse
2. Construction impacts
3. Public art and amenities
4. Vignes Street permanent closure
5. Hazardous materials/contaminated soil uncovered during construction

Responses to comments were prepared and included in the Final EIR. The Link US project team has coordinated with other CEQA responsible agencies including City of Los Angeles, Caltrans, Southern California Regional Rail Authority and California High Speed Rail Authority during the preparation of the responses to comments. Written responses were provided to all commenting agencies in accordance with CEQA Guidelines Section 15088(b).

On June 5, 2019, staff presented the Final EIR project to the Metro Technical Advisory Committee including representatives from cities within the Los Angeles County. On June 6, 2019, staff hosted a Link US community event in the East Portal of Union Station featuring two (2) presentations as well as other project displays to allow the public to learn about and provide feedback on the proposed Final EIR project. Subsequently, staff received two support letters from the Little Tokyo community for the Final EIR Project (Refer to Attachment H).

DETERMINATION OF SAFETY IMPACT

The Link US project is being planned and designed in accordance with Metro and Metrolink standards, state and federal requirements. Approval of the Link US project will have no impact on safety.

FINANCIAL IMPACT

Approval and adoption of the Link US project would have no financial impact to the agency.

Impact to Budget

The funds required for completing the preliminary engineering and environmental certification consist of previously approved and programmed Measure R Metrolink Commuter Rail Capital Improvements (3%) and CHSRA funds. These funds are not eligible for Metro bus or rail operating or capital expenditures.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Link US project supports Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. The proposed run-through tracks would increase regional and intercity rail capacity and reduce train idling at Los Angeles Union Station (LAUS), enable one-seat rides from Santa Barbara County to San Diego County through LAUS, and accommodate a new high-quality transportation option such as High Speed Rail in Southern California. The project also supports Strategic Goal 2: Deliver outstanding trip experiences for all users of the transportation system. The proposed new passenger concourse and the new outdoor plaza (West Plaza) would improve customer experience and satisfaction by enhancing transit and retail amenities at LAUS, and improving access to train platforms with new escalators and elevators. Lastly, the project supports Strategic Goal 4: Transform LA County through regional collaboration and national leadership. The project requires close collaboration with many local, regional, State and Federal partners including City of Los Angeles, SCRRA, LOSSAN Authority, Caltrans, CHSRA, CalSTA, FRA and Amtrak.

ALTERNATIVES CONSIDERED

The Board could delay action to certify the Final EIR, adopt the Findings of Fact and Statement of Overriding Considerations, as well as the MMRP. Deferral of these actions is not recommended as they would delay the project schedule including advancing preliminary design and meeting the

funding requirements.

The Board could decide to approve the Draft EIR Project and reject the staff recommended Final EIR Project. This is not recommended because the Final EIR Project changes were developed in response to the substantial public comments received regarding the above-grade passenger concourse, concerns regarding construction access, and the agreement among the project funding partners and rail operators to modify the run-through track alignment.

NEXT STEPS

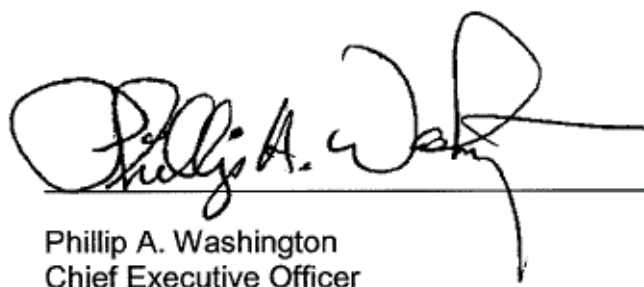
Staff will return to the Board in July 2019 for a contract modification to the preliminary engineering design based on the FEIR project, perform additional subsurface utility investigations and third-party costs. CHSRA has made a commitment to recommend to the CHSRA Board approval of a funding agreement with Metro in the amount of \$423.335 million for the Link US project by October 2019. Metro is working with Metrolink to shall execute an agreement with Metrolink defining roles and responsibilities between the two parties for the successful planning, design, and implementation of the Link US Project.

ATTACHMENTS

Attachment A - Notice of Determination
Attachment B - Link US Final EIR Project
Attachment C- Cost Comparison of the Passenger Concourse Options
Attachment D - Preliminary Draft Bridge Aesthetic Concepts
Attachment E - Link US Proposed Active Transportation Elements
Attachment F - Link US Mitigation Monitoring and Reporting Plan
Attachment G - Memorandum from Metrolink regarding the Link US project
Attachment H - Support Letters from the Little Tokyo Community

Prepared by: Vincent Chio, Director, Regional Rail, (213) 418-3178
Jeanet Owens, Senior Executive Officer, Regional Rail, (213) 418-3189

Reviewed by: Richard Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A**Notice of Determination****Appendix D****To:**

☒ Office of Planning and Research
 U.S. Mail: Street Address:
 P.O. Box 3044 1400 Tenth St., Rm 113
 Sacramento, CA 95812-3044 Sacramento, CA 95814

☒ County Clerk
 County of: Los Angeles
 Address: PO Box 1208
Norwalk, CA 90650-1208

From:

Public Agency: LACMTA (Metro)
 Address: One Gateway Plaza, MS 99-17-2
Los Angeles, CA 90012
 Contact: Jeanet Owens
 Phone: 213-418-3189

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2016051071

Project Title: Link Union Station

Project Applicant: Los Angeles County Metropolitan Transportation Authority

Project Location (include county): 800 Alameda Street, Los Angeles, CA; Los Angeles County

Project Description:

The project would transform LAUS from a "stub-end tracks station" into a "run-through tracks station" with a new passenger concourse to improve the efficiency of the station and accommodate future growth and transportation demands in the region. Key projects components include: an optimized throat with one new lead track, a modified expanded passageway; new passenger platforms on an elevated rail yard; new run-through tracks over US-101 freeway; new rail communications, signals, and tracks; modifications and safety enhancements to US-101 and local roadways. The project accommodates the planned High-Speed Rail system on shared lead tracks north of LAUS.

This is to advise that the LA County Metropolitan Transportation Authority has approved the above
☒ Lead Agency or ☐ Responsible Agency)

described project on _____ and has made the following determinations regarding the above
 (date)
 described project.

1. The project [☒ will ☐ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☒ was ☐ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

<https://www.metro.net/projects/link-us/overview/>

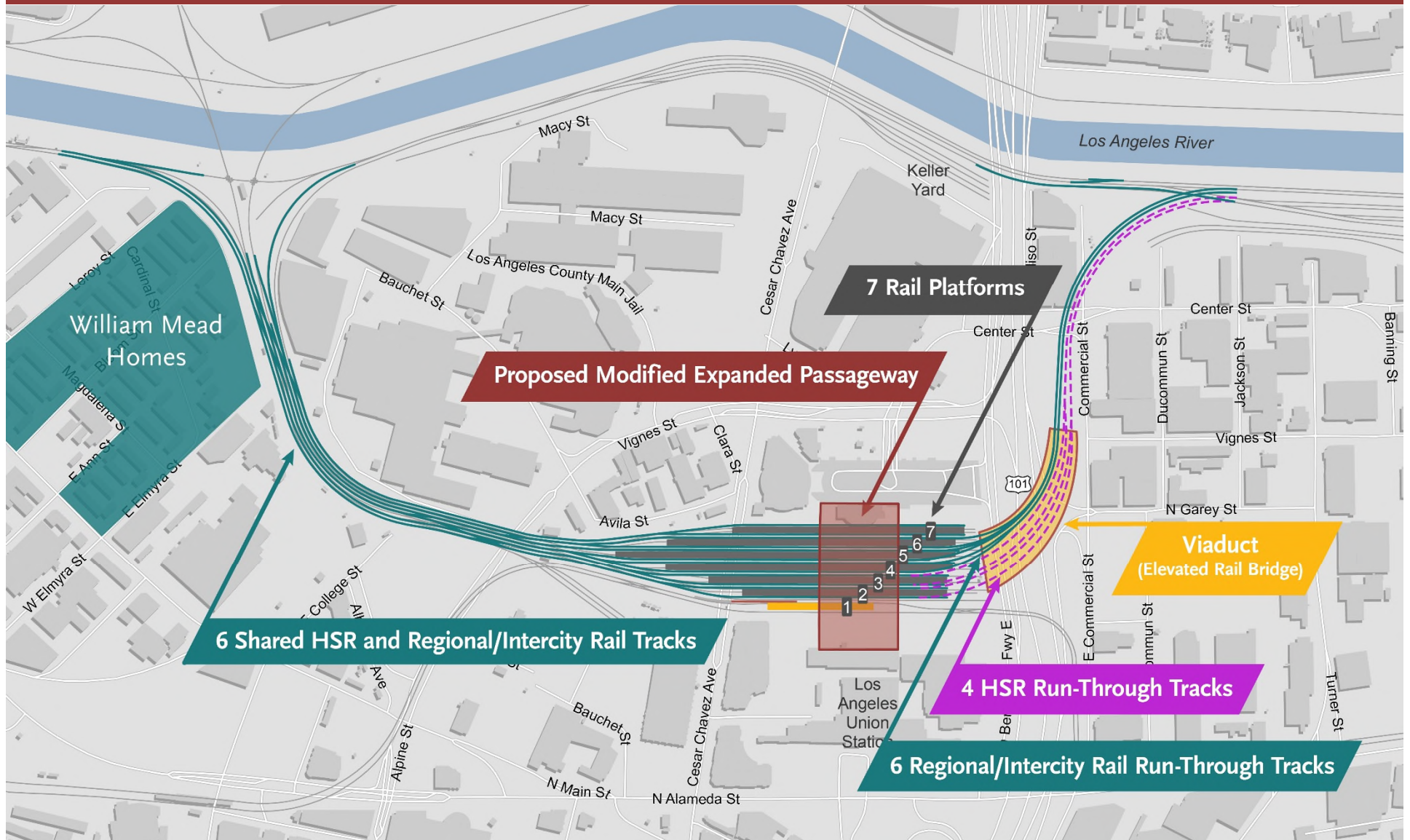
Signature (Public Agency): _____ Title: _____

Date: _____ Date Received for filing at OPR: _____

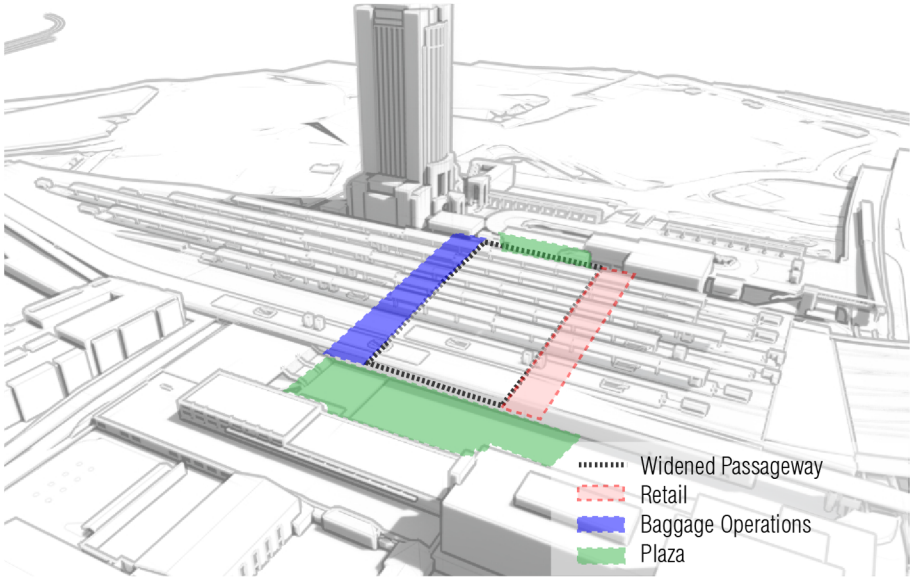
ATTACHMENT B

Link Union Station Final EIR Project*

*Final EIR Project is Subject to Metro Board Approval



1 MODIFIED EXPANDED PASSAGEWAY
(FINAL EIR PROJECT)



CONSTRUCTION PHASING

- Lesser passenger disruption compared to the At-Grade Concourse

PASSENGER TRANSFER TIME

- Similar to the At-Grade Concourse

ENVIRONMENTAL

- Less potential for environmental impacts than the At-Grade Concourse

BAGGAGE HANDLING

- Baggage service is proposed to be accomplished through a centralized location for ticketing and baggage check-in at the concourse level

OPERATIONS & MAINTENANCE

- Maintenance of spaces approximately 246,000 square feet West Plaza, East Plaza, Expanded Passageway & Baggage Handling Facility

IMPACTS TO THE METRO GOLD LINE

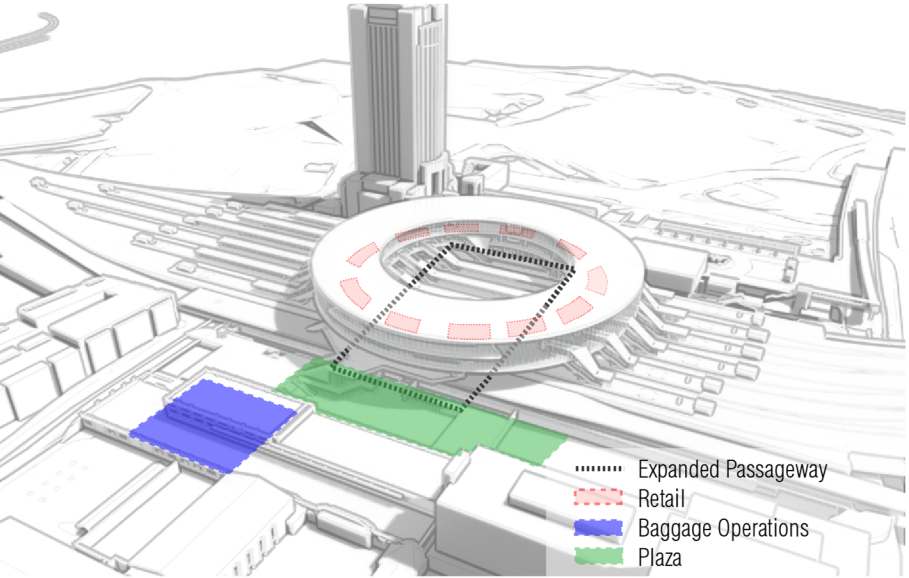
- Metro Gold Line would be temporarily relocated on-site during construction

PRELIMINARY COST ESTIMATE

- Estimated total project cost approx. \$2.3 billion

CONCOURSE OPTIONS (in 2018 dollars)
SUMMARY

2 ABOVE-GRADE CONCOURSE WITH NEW EXPANDED
PASSAGEWAY (DRAFT EIR - PROPOSED PROJECT)



CONSTRUCTION PHASING

- Greater potential for passenger disruption compared to the Modified Expanded Passageway

PASSENGER TRANSFER TIME

- Identical travel time from trains to platform. Increase in passenger transfer time with use of retail amenities and waiting areas in Above-Grade Concourse

ENVIRONMENTAL

- Lower potential for environmental impacts than At-Grade Concourse

BAGGAGE HANDLING

- Baggage service is proposed to be accomplished through a split location for ticketing and baggage check-in at the east and west ends of LAUS

OPERATIONS & MAINTENANCE

- Maintenance of spaces approximately 334,000 square feet West Plaza, East Plaza, Concourse & Baggage Handling Facility

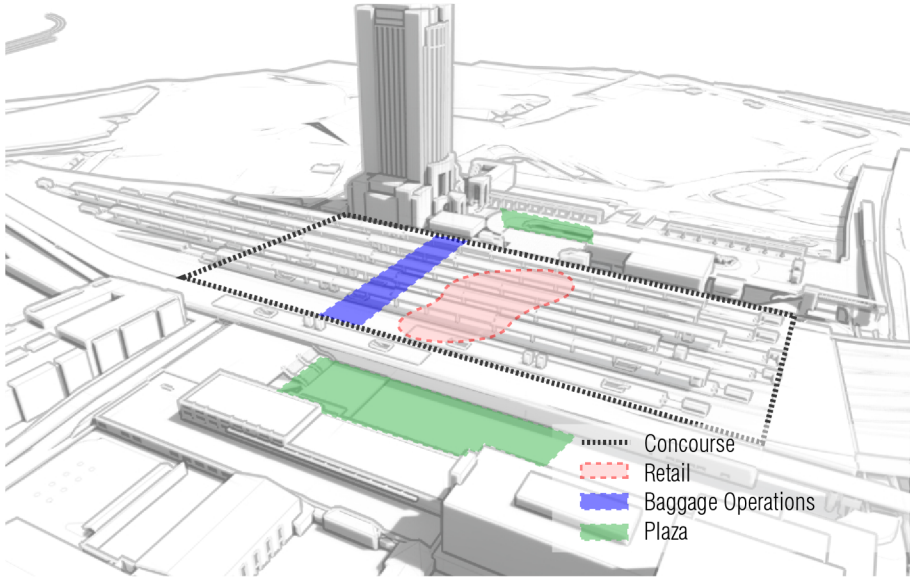
IMPACTS TO THE METRO GOLD LINE

- Metro Gold Line would not be temporarily relocated during construction

PRELIMINARY COST ESTIMATE

- Estimated total project cost approx. \$2.8 billion

3 AT-GRADE CONCOURSE
(DRAFT EIR - BUILD ALTERNATIVE)



CONSTRUCTION PHASING

- Greatest potential for passenger disruption

PASSENGER TRANSFER TIME

- Similar to Modified Expanded Passageway

ENVIRONMENTAL

- Greatest potential for environmental impacts

BAGGAGE HANDLING

- Baggage service is proposed to be accomplished through a centralized location for ticketing and baggage check-in at the concourse level

OPERATIONS & MAINTENANCE

- Maintenance of public space approximately 533,000 square feet West Plaza, East Plaza, Concourse & Baggage Handling Facilities

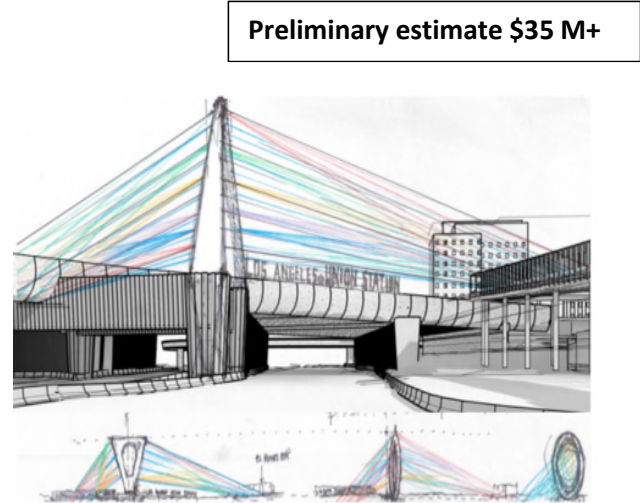
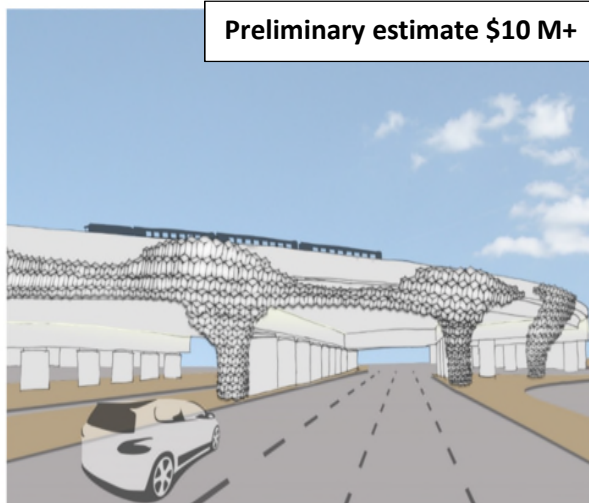
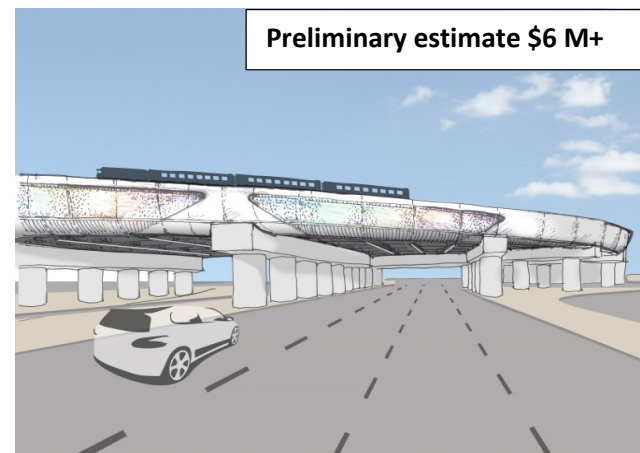
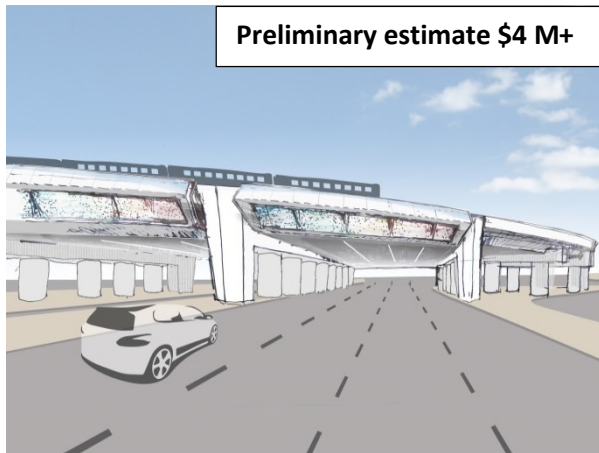
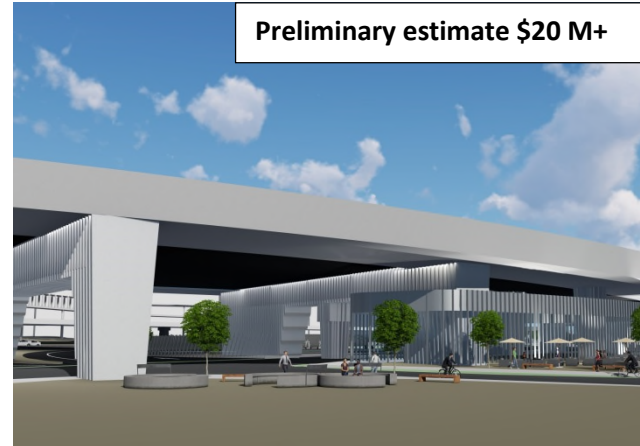
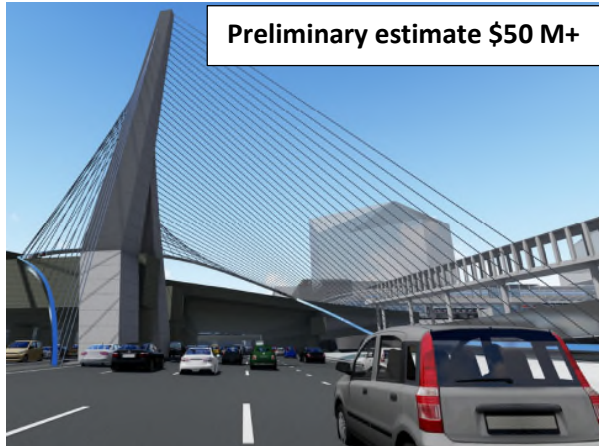
IMPACTS TO THE METRO GOLD LINE

- Metro Gold Line would be temporarily relocated on-site during construction

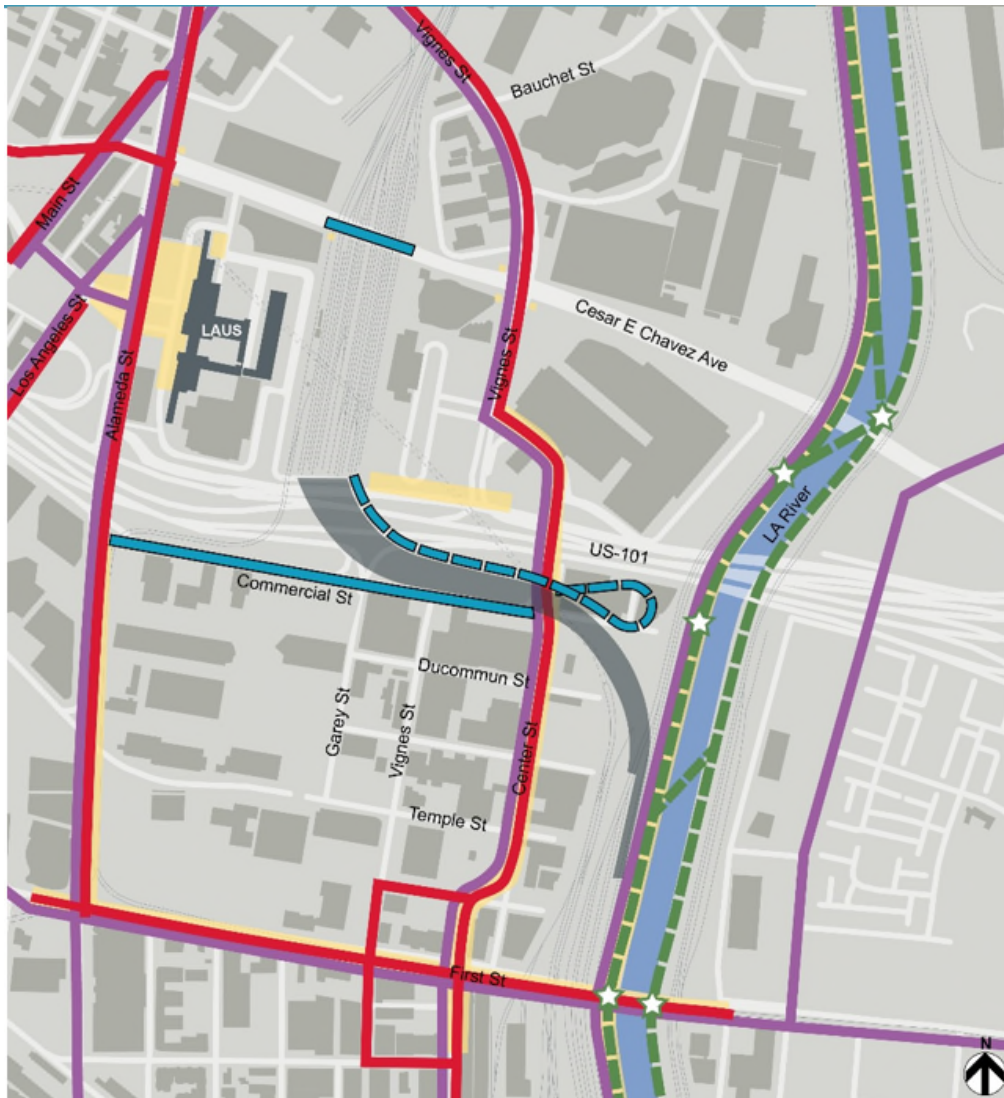
PRELIMINARY COST ESTIMATE

- Estimated total project cost approx. \$3.3 billion

ATTACHMENT D- PRELIMINARY DRAFT BRIDGE AESTHETICS CONCEPTS



ATTACHMENT E



Legend

Link US Proposed Active Transportation Elements

- Improvements At-Grade
- Improvements Elevated (as an alternative to at-grade with additional funding)

Connect US Action Plan

- Bike Lane/Cycle Track/Path

Mobility Plan 2035

- Bicycle Lane/Path

LA River Bike Path Project

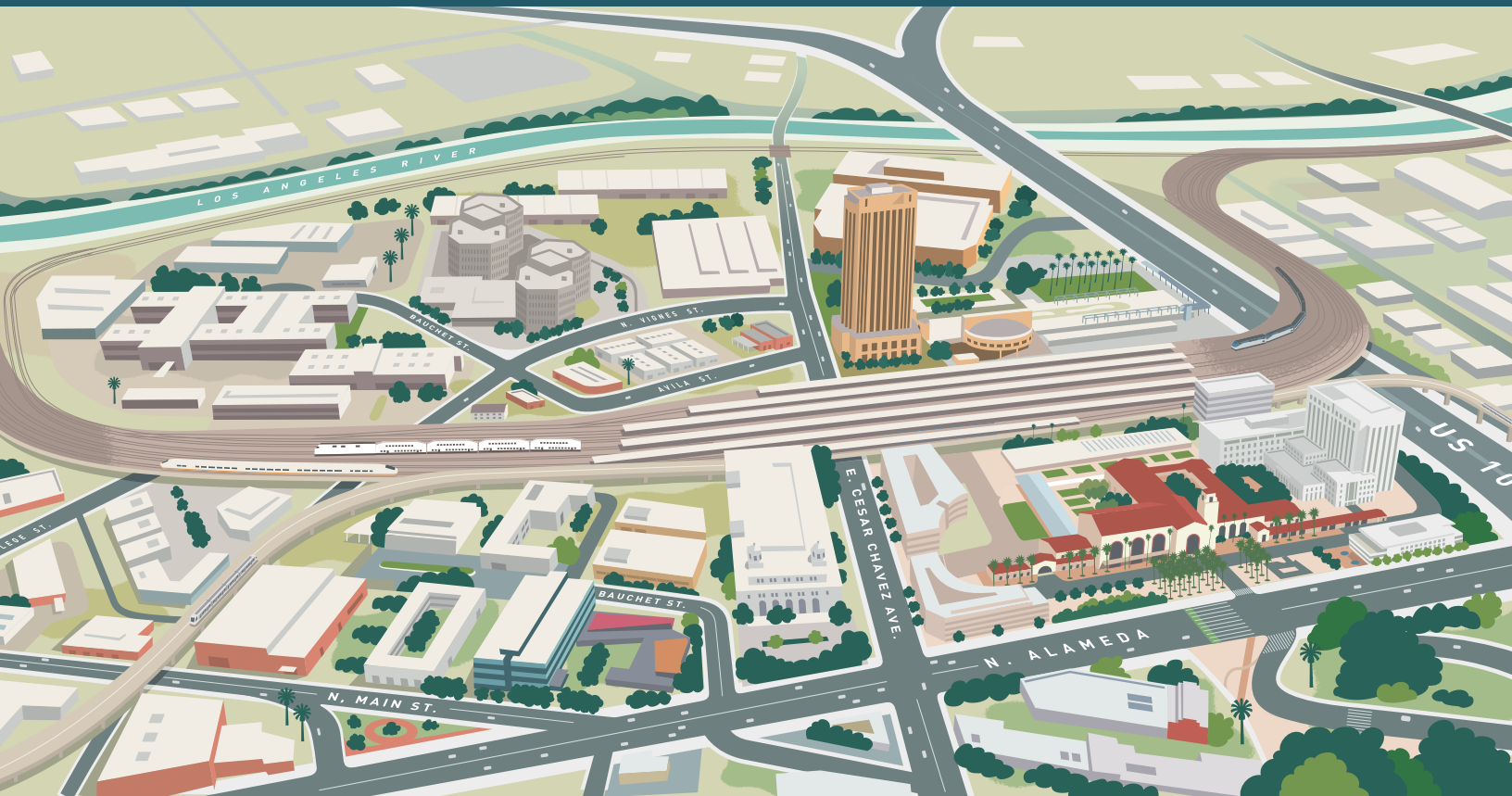
- Potential Alignment
- Potential Access Location

- Other Metro Projects

Link Union Station

Mitigation Monitoring and Reporting Program

June 2019



(THIS PAGE INTENTIONALLY LEFT BLANK)

CONTENTS

1.0 Introduction..... 1

TABLES

Table 1. Mitigation Monitoring and Reporting Program..... 3

ACRONYMS

AB	Assembly Bill
BMP	best management practice
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	construction general permit
CHC	Cultural Heritage Commission
CHSRA	California High-Speed Rail Authority
CRMMP	Cultural Resource Mitigation and Management Plan
DTSC	Department of Toxic Substance Control
EIR	environmental impact report
ESA	environmental site assessment
FTA	Federal Transit Administration
HABS	Historic American Buildings Survey
HACLA	Housing Authority of the City of Los Angeles
HCM	Historic-Cultural Monument
HMMP	Hazardous materials management plan
HSR	High-Speed Rail
IGP	industrial general permit
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LADOT	City of Los Angeles Department of Transportation
LAHCM	Los Angeles Historic-Cultural Monument
LAUS	Los Angeles Union Station
LID	low impact development
LOSSAN	Los Angeles-San Diego-San Luis Obispo
LUC	Land Use Covenant
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MMRP	Mitigation Monitoring and Reporting Program
MOU	memorandum of understanding
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
OHR	Office of Historic Resources
OSHA	Occupational Safety and Health Administration
PAH	polynuclear aromatic hydrocarbon
PMP	Paleontological Mitigation Plan
PRC	Public Resources Code
RIO	River Improvement Overlay District
ROW	right-of-way;
RWQCB	Regional Water Quality Control Board

Mitigation Monitoring and Reporting Program

SCAQMD	South Coast Air Quality Management District; SCORE=Southern California Optimized Rail Expansion
SCRRA	Southern California Regional Rail Authority
SWRCB	State Water Resources Control Board
SWPPP	stormwater pollution prevention plan
TMP	traffic management plan
TPH	total petroleum hydrocarbons
VOC	volatile organic compound
WEAP	worker environmental awareness program

(THIS PAGE INTENTIONALLY LEFT BLANK)

1.0 Introduction

Section 21081.6 of the Public Resources Code requires a lead agency to adopt a “reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment” (Section 15097 of the California Environmental Quality Act (CEQA) Guidelines provides additional direction on mitigation monitoring or reporting). As lead agency for the Proposed Project, Metro is responsible for administering and implementing the Mitigation Monitoring and Reporting Program (MMRP). The decision makers must define specific monitoring requirements to be enforced during project implementation prior to final approval of the Proposed Project. The primary purpose of the MMRP is to ensure that the mitigation measures identified in the Draft and Final Environmental Impact Report (EIR) are implemented, effectively minimizing the identified environmental effects.

Table 1 has been prepared to ensure compliance with all the mitigation measures identified in the Draft EIR and this Final EIR which would lessen or avoid potentially significant adverse environmental impacts resulting from the implementation of the Proposed Project. Each mitigation measure is identified in Table 1 and is categorized by topic and corresponding number, with identification of:

- Compliance Action/Deliverable – The criteria that would determine when the measure has been accomplished and/or the monitoring actions to be undertaken to ensure the measure has been implemented.
- Responsible Party – The entity accountable for implementing the action/deliverable.
- Enforcement Agency – The entity accountable for overseeing the implementation of mitigation.
- Implementation Phase (A or B) – The phase of the project when implementation would occur.
- Monitoring/Compliance Schedule – The compliance/monitoring schedule depends upon the progression of the overall project. Therefore, specific dates are not used within the “Schedule” column. Instead, schedule describes a logical succession of events (e.g., prior to construction, construction).
- Verification of Compliance – The monitor verifies completion of the particular mitigation measure by initialing and dating this column. Conclusion of the monitoring program concludes when all required signatures are obtained in the Verification of Compliance column.

(THIS PAGE INTENTIONALLY LEFT BLANK)

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures		Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
							Initial	Date
Land Use and Planning								
LU-1	Enhance Neighborhood Connectivity: Consistent with the Los Angeles River Revitalization Master Plan, RIO Overlay District guidelines, LAUS Sustainable Neighborhood Assessment, City of Los Angeles Mobility Plan, Metro’s LA River Path Project, and Metro’s Los Angeles Union Station Forecourt and Esplanade Improvements Project, to mitigate the identified significant impact, Metro, in coordination with the City of Los Angeles, shall implement either Class II or IV type bike lanes that consist of only pavement striping and bollards (no additional right-of-way and no raised median will be required) along Commercial Street from Alameda Street to Center Street, enhancing neighborhood connectivity south of US-101. If additional funding is identified, a dedicated bicycle/pedestrian bridge over US-101 could be constructed in addition to the new bicycle lanes described above.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A or B	During Final Design of these specific improvements	—	—
		Prepare infrastructure plans for review and approval by the City of Los Angeles	Metro	City of Los Angeles	Phase A or B	During Final Design of these specific improvements	—	—
		Implement either Class II or IV type bike lanes along Commercial Street from Alameda Street to Center Street	Contractor	City of Los Angeles	Phase A or B	Construction	—	—
Transportation and Traffic								
TR-1	Prepare a Construction TMP: During the final engineering phase and at least 30 days prior to construction, a construction TMP shall be prepared by the contractor and reviewed and approved by Metro, LADOT, and Caltrans, where applicable. The street closure schedules in the construction TMP shall be coordinated between the construction contractor, LADOT, Caltrans (if ramps are involved), private businesses, public transit and bus operators, emergency service providers, and residents to minimize construction-related vehicular traffic impacts during the peak-hour. During planned closures, traffic shall be re-routed to adjacent streets via clearly marked detours and notice shall be provided in advance to applicable parties (nearby residences, emergency service providers, public transit and bus operators, the bicycle community, businesses, and organizers of special events). The TMP shall identify proposed closure schedules and detour routes, as well as construction traffic routes, including haul truck routes, and preferred delivery/haul-out locations and hours so as to avoid heavily congested areas during peak hours, where feasible. The following provisions shall be included in the TMP: <ul style="list-style-type: none">Traffic flow shall be maintained, particularly during peak hours, to the degree feasible.Access to adjacent businesses shall be maintained during business hours via existing or temporary driveways, and residences at all times, as feasible.Metro or the contractor shall post advance notice signs prior to construction in areas where access to local businesses could be affected. Metro shall provide signage to indicate new ways to access businesses and community facilities, if affected by construction.Metro shall notify LADOT and Caltrans in advance of street closures, detours, or temporary lane reductions.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Prepare TMP	Contractor	Metro/City of Los Angeles/Caltrans	Phase A and B	Prior to Construction	—	—
		Implement TMP during construction	Contractor	Metro/City of Los Angeles/Caltrans	Phase A and B	Construction	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<ul style="list-style-type: none"> Metro shall coordinate with LADOT and Caltrans to adjust the signal timing at affected intersections and on- or off-ramps to mitigate detoured traffic volumes. Closed-circuit television cameras shall be installed at some of the impacted intersections (as approved by LADOT) to monitor traffic in real-time by the Automated Traffic Surveillance and Control department of LADOT during construction. This will allow the city to alleviate congestion by manually changing signal timing parameters, such as allowing more green time to congested movements. Contractor shall avoid concurrent closures of Cesar Chavez Avenue and Vignes Street north of LAUS. 							
TR-2 Install Traffic Signal: Metro shall install a new traffic signal at the intersection of Center Street and Commercial Street.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase B	During Final Design	—	—
	Install traffic signal	Contractor	City of Los Angeles		During Construction	—	—
TR-3 Prepare Rail Operations Temporary Construction Staging Plan: During final engineering design and prior to construction, Metro shall prepare a memorandum of understanding (MOU) with each current rail operator, including, but not limited to SCRRA, LOSSAN, and Amtrak, to outline mutually agreed upon on-time performance goals to be achieved throughout construction, and how construction sequencing and railroad operational protocols would be incorporated into applicable construction documents (plans and specifications). Prior to construction, Metro and the construction contractor shall prepare detailed temporary construction staging plans for each phase of construction that the contractor would implement to maintain mutually agreed upon on-time performance goals while minimizing impacts on pedestrians and passengers at LAUS. Prior to construction, Metro and the construction contractor shall also coordinate with current rail operators to ensure that any rail-to-bus or rail-to-rail connections are uninterrupted throughout construction. Detailed temporary construction staging plans shall be deemed acceptable by the current rail operators prior to commencement of construction activities that could reduce on-time performance. Throughout the duration of construction, SCRRA shall participate in weekly construction coordination meetings to ensure that the mutually agreed upon on-time performance is met.	Prepare MOUs	Metro	Current Rail Operators (SCRRA, LOSSAN, Amtrak)	Phase A and B	Prior to Construction	—	—
	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Prepare temporary construction service plans	Metro/Contractor	Metro and Current Rail Operators (SCRRA, LOSSAN, Amtrak)	Phase A and B	Prior to Construction		
	Participate in weekly construction coordination meetings	Metro, in coordination with SCRRA, Amtrak and LOSSAN Rail Corridor Agency	Metro	Phase A and B	During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures		Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
							Initial	Date
Aesthetics								
AES-1	Aesthetic Treatments: Retaining walls in Segments 1 and 2 and the sound wall in Segment 1 shall be designed in consideration of the scale and architectural style of the adjacent William Mead Homes and Mozaic Apartments. Based on feedback received during project development from residents of the William Mead Homes property, Metro shall coordinate with HACLA regarding aesthetic enhancements to the retaining wall/sound wall at that location. Materials, color, murals, landscaping, and/or other aesthetic treatments shall be integrated into the design of the retaining wall/sound wall to minimize the dominance and scale of the retaining wall/sound wall.	Coordinate with HACLA on aesthetic enhancements	Metro	Metro	Phase B	During Final Design	—	—
		Incorporate aesthetic treatments into applicable construction documents (plans and specifications)	Metro	Metro		During Final Design	—	—
		Apply aesthetic treatments	Contractor	City of Los Angeles (HACLA)		During Construction	—	—
AES-2	Minimize Nighttime Work and Screen Direct Lighting: Nighttime construction activities near residential areas shall be avoided to the extent feasible. If nighttime work is required, the construction contractor shall install temporary lighting in a manner that directs light toward the construction area and shall install temporary shields as necessary so that light does not spill over into residential areas.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	Prior to Construction	—	—
		Direct light toward the construction area and install temporary shields (as needed)	Contractor	Metro		During Construction	—	—
AES-3	Screen Direct Lighting and Glare: During final design, all new or replacement lighting shall comply with maximum allowable CALGreen glare ratings (California Building Standards Code 2013 – Title 24, Part 11) and shall be designed to be directed away from residential units. Screening elements, including landscaping, shall also be incorporated into the design, where feasible. Low-reflective glass and materials shall also be incorporated into the design of the new canopies to reduce daytime glare impacts.	Incorporate lighting, screening, and glare requirements into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Install permanent lighting that meets CalGreen requirements directed away from residences and install screening elements as needed.	Contractor	Metro		During Construction	—	—
Air Quality and Global Climate Change								
AQ-1	Fugitive Dust Control: In compliance with SCAQMD Rule 403, during clearing, grading, earthmoving, or excavation operations, fugitive dust emissions shall be controlled by regular watering or other dust preventive measures using the following procedures, as specified in SCAQMD Rule 403: <ul style="list-style-type: none">Minimize land disturbed by clearing, grading, and earth moving, or excavation operations to prevent excessive amounts of dustProvide an operational water truck on site at all times; use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas; watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is doneSuspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumesSecurely cover trucks when hauling materials on or off site	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Implement dust control measures	Contractor	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<ul style="list-style-type: none">Stabilize the surface of dirt piles if not removed immediatelyLimit vehicular paths and limit speeds to 15 miles per hour on unpaved surfaces and stabilize any temporary roadsMinimize unnecessary vehicular and machinery activitiesSweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadwayRevegetate or stabilize disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities <p>The following measures shall also be implemented to reduce construction emissions:</p> <ul style="list-style-type: none">Prepare a comprehensive inventory list of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) (i.e., make, model, engine year, horsepower, emission rates) that could be used an aggregate of 40 or more hours throughout the duration of construction to demonstrate how the construction fleet is consistent with the requirements of Metro's Green Construction PolicyEnsure that all construction equipment is properly tuned and maintainedMinimize idling time to 5 minutes, whenever feasible, which saves fuel and reduces emissionsUtilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators, whenever feasibleArrange for appropriate consultations with CARB or SCAQMD to determine registration and permitting requirements prior to equipment operation at the site and obtain CARB Portable Equipment Registration with the state or a local district permit for portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, as applicable <p>These control techniques shall be included in project specifications and shall be implemented by the construction contractor.</p>							
AQ-2	Compliance with U.S. EPA's Tier 4 Exhaust Emission Standards and Renewable Diesel Fuel for Off-Road Equipment: In compliance with Metro's Green Construction Policy, all off-road diesel powered construction equipment greater than 50 horsepower shall comply with U.S. EPA's Tier 4 final exhaust emission standards (40 CFR Part 1039). In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with best available control technology devices certified by the CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine, as defined by CARB regulations.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Phase A and B	During Final Design	—	—
		Use construction equipment that meets Tier 4 exhaust emissions standards.	Contractor		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
In addition to the use of Tier 4 equipment, all off-road construction equipment shall be fueled using 100 percent renewable diesel.							
<p>AQ-3 Adaptive Air Quality Mitigation Plan: Prior to implementation of regional/intercity rail run-through service, an Adaptive Air Quality Mitigation Plan shall be prepared by Metro, in coordination with the SCRRA, as the operator of the commuter rail service in Southern California and the program manager and grant recipient of the SCORE Program, Amtrak, and the LOSSAN Rail Corridor Agency. The Plan shall identify the methodology and requirements for annual emission inventories to be prepared by Metro, based on actual/current train movements and corresponding pollutant concentrations through the Year 2040.</p> <p>Mitigation Plan Requirements: Upon implementation of regional/intercity run-through service, and on an annual basis, Metro shall compile and summarize the current Metrolink, Pacific Surfliner, and Amtrak long-distance train schedules to determine the actual level of daily and peak-period train movements (including non-revenue train movements) that operate through LAUS.</p> <p>On an annual basis, Metro shall retain the services of an air quality specialist to conduct an annual emissions inventory to determine if actual train movements through LAUS are forecasted to increase criteria pollutant emissions to a level that would exceed the SCAQMD significance thresholds or diesel pollutant concentrations to a level that would exceed the SCAQMD's 10 in a million threshold at any residential land use in the project study area. An annual report shall be prepared by Metro that summarizes the quantitative results of pollutant emissions and diesel pollutant concentrations in the project study area. If pollutant emissions and diesel pollutant concentrations are projected to exceed the SCAQMD thresholds, the regional and intercity rail operators in coordination with Metro and California State Transportation Agency, shall either implement rail fleet emerging technologies consistent with 2018 California State Rail Plan Goal 6: Practice Environmental Stewardship, Policy 4: Transform to a Clean and Energy Efficient Transportation System (Caltrans 2018a, pg. 10 and 110), or reduce the train movements through LAUS to lower the criteria pollutant emissions below the SCAQMD significance thresholds and the diesel pollutant concentrations below the SCAQMD thresholds in the project study area.</p> <p>After implementation of emerging technologies, Metro shall continue to prepare an emissions inventory in coordination with SCRRA, Amtrak, and the LOSSAN Rail Corridor Agency annually to report the quantitative results of criteria pollutant emissions and diesel pollutant concentrations in the project study area. The annual report shall include an analysis of the actual (current) and proposed changes in train schedules relative to criteria pollutant emissions and diesel pollutant concentration levels in the project study area. The report shall be prepared annually by December 31 of each year, beginning the calendar year after implementation of regional/intercity rail run-through service through</p>	Prepare an Adaptive Air Quality Mitigation Plan	Metro, in coordination with SCRRA, Amtrak and LOSSAN Rail Corridor Agency	Metro, in coordination with SCAQMD	Phase A and B	Prior to implementation of run-through service	—	—
	Compile current train schedules/Determine actual train movements	Metro	Metro		Annually by November 1 through 2040	—	—
	Retain air quality specialist to conduct annual emissions inventory	Metro	Metro		Annually by November 1 through 2040	—	—
	Prepare Annual Report	Metro	Metro		Annually by December 31 through 2040	—	—
	Incorporate rail fleet emerging technology requirements into existing and/or future funding and/or operating agreements with provisions that require regional and intercity rail operators to replace, retrofit, or supplement some or all of their existing fleet with zero or low-emission features or reduce train movements through LAUS (only if Annual Report identifies an increase in health risks associated with diesel pollutant concentrations that would exceed SCAQMD thresholds)	Metro, in coordination with SCRRA, Amtrak and LOSSAN Rail Corridor Agency	Metro, in coordination with SCAQMD		Within 60 days of completing Annual Report (if SCAQMD thresholds are anticipated to be exceeded)	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance		
						Initial	Date	
<p>2040 and shall include results of the emissions inventory and effectiveness of the measures implemented.</p> <p>Rail Fleet Emerging Technologies: To achieve a reduction of criteria pollutant emissions below the SCAQMD thresholds and diesel pollutant concentrations below a level that would not exceed SCAQMD thresholds, the regional and intercity rail operators may replace, retrofit, or supplement some or all of their existing fleet with zero or low-emission features. The types of emerging technologies that can be implemented, include, but are not limited to the following:</p> <ul style="list-style-type: none">• Electric multiple unit systems• Diesel multiple units• Battery-hybrid multiple units• Renewable diesel and other alternative fuels <p>Metro shall coordinate with regional rail/intercity rail operators to incorporate these emerging technologies into existing and/or future funding and/or operating agreements to reduce locomotive exhaust emissions in the project study area.</p>								
Noise and Vibration								
NV-1	Construct Sound Wall: Prior to reaching the forecasted maximum daily regional/intercity train movements through LAUS in 2031 (770 trains), Metro shall construct a sound wall up to 22 feet in height to reduce operational noise impacts at William Mead Homes. The sound wall shall be constructed of materials that achieve similar reductions or insertion loss at impacted receptors and shall have a surface density of at least 4 pounds per square foot. Metro may construct the sound wall earlier than 2031 to reduce construction-related noise impacts and/or moderate operational noise impacts from increased train movements that may occur as early as 2026.	Incorporate design requirements into sound wall	Metro	Metro	Phase B	During Final Design	—	—
		Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro		During Final Design	—	—
		Construct sound wall	Contractor	Metro		During Construction	—	—
NV-2	Employ Noise- and Vibration-Reducing Measures during Construction: The construction contractor shall employ measures to minimize and reduce construction noise and vibration. Noise and vibration reduction measures that would be implemented include, but are not limited to, the following: <ul style="list-style-type: none">• Design considerations and project layout:<ul style="list-style-type: none">○ Construct temporary noise walls, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers○ Reroute truck traffic away from residential streets, if possible, and select streets with fewest residences if no alternatives are available	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Implement noise and vibration reduction measures	Contractor	Metro		During Construction	—	—
		Monitor noise and vibration levels at William Mead Homes and Mozaic Apartments during the loudest/most vibration intensive activities and notify Metro if FTA criteria is exceeded	Metro	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<ul style="list-style-type: none">○ Site equipment on the construction site as far away from noise-sensitive sites as possible○ Construct walled enclosures around especially noisy activities or clusters of noisy equipment (i.e., shields can be used around pavement breakers and loaded vinyl curtains can be draped under elevated structures)• Sequence of operations:<ul style="list-style-type: none">○ Restrict pile driving to daytime periods○ Combine noisy operations to occur in the same time period<ul style="list-style-type: none">▪ The total noise level produced would not be significantly greater than the level produced if the operations were performed separately○ Avoid nighttime activities to the maximum extent feasible<ul style="list-style-type: none">▪ Sensitivity to noise increases during the nighttime hours in residential neighborhoods• Alternative construction methods:<ul style="list-style-type: none">○ Avoid use of an impact pile driver in noise and/or vibration-sensitive areas, where possible<ul style="list-style-type: none">▪ Drilled piles or the use of a sonic or vibratory pile driver are quieter alternatives where the geological conditions permit their use○ Use specially-quieted equipment, such as quieted and enclosed air compressors and properly-working mufflers on all engines○ Select quieter demolition methods, where possible (e.g., sawing bridge decks into sections that can be loaded onto trucks results in lower cumulative noise levels than impact demolition by pavement breakers) <p>In an effort to keep construction noise levels below FTA's construction noise or vibration criteria, Metro shall monitor noise and vibration during the loudest and most vibration intensive types of construction activities. Continuous construction noise and vibration monitoring shall be conducted at the first row of residences at William Mead Homes and Mozaic Apartments, within 300 feet of construction activities, approximately). Monitors shall be deployed closest to the construction activity because demonstration of compliance with the construction thresholds at the nearest locations guarantees compliance further away. If FTA's construction noise or vibration criteria are exceeded, the contractor shall be alerted and directed by Metro to incorporate additional noise and vibration reduction methods (examples above).</p>	Implement additional noise reduction methods (if FTA's construction noise and vibration criteria are exceeded)	Contractor	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures		Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
							Initial	Date
NV-3	Prepare a Community Notification Plan for Project Construction: To proactively address community concerns related to construction noise and vibration, prior to construction, Metro and/or the construction contractor shall prepare and maintain a community notification plan. Components of the plan shall include initial information packets prepared and mailed to all residences within a 500-foot radius of project construction. Updates to the plan shall be prepared as necessary to indicate changes to the construction schedule or other processes. Metro shall identify a project liaison to be available to respond to questions from the community or other interested groups.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Prepare community notification plan/Identify project liaison	Contractor	Metro		Prior to Construction	—	—
		Mail information packets to all residences within 500 feet of construction area	Contractor	Metro		During Construction	—	—
Biological Resources								
BIO-1	Bats: Preconstruction surveys for roosting special-status bats (including western mastiff bats and western yellow bats) and other native bat species shall be conducted by a Metro-approved qualified bat biologist within 2 weeks prior to construction. Surveys shall be conducted where suitable habitat and/or bridge structures that will be removed or that will have modifications to the substructure are present. All locations with suitable roosting habitat (including potential maternity roosts) shall be surveyed using an appropriate combination of structure inspection, exit counts, acoustic surveys, or other suitable methods. Surveys shall be conducted during the appropriate season and time of day/night to ensure detection of day- and night-roosting bats (i.e., preferably one daytime and one nighttime survey shall be conducted at each location with suitable roosting habitat during the maternity season, May 1 through August 31). If no roosts are detected, trees that provide suitable roosting habitat may be removed under the guidance of the qualified bat biologist. If a roost is detected, passive exclusion shall include monitoring the roost for 3 days to determine if the roost is active. If the roost is determined to support a reproductive female with young, the roost shall be avoided until it is no longer active. If the roost remains active during the 3 monitoring days and observations confirm it is not a maternity colony, a temporary bat exclusion device shall be installed under the supervision of a Metro-approved qualified bat biologist. At the discretion of the biologist, based on his or her expertise, an alternative roosting structure(s) may be constructed and installed prior to the installation of exclusion devices. Exclusion shall be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or torpid (overwintering) individuals during the winter. If it cannot be determined whether an active roost site supports a maternity colony, the roost site shall not be disturbed, and construction within 300 feet shall be postponed or halted until the roost is vacated and the young are volant (able to fly). Exclusion efforts shall be monitored on a weekly basis and continued for the duration of project construction activities and removed when no longer necessary. The following avoidance and minimization measures shall be implemented during construction:	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Retain a qualified bat biologist	Metro	Metro		Prior to Tree Removal/Bridge Removal	—	—
		Conduct preconstruction bat surveys	Metro	Metro		During Construction	—	—
		Implement avoidance measures and/or temporary bat exclusion devices (only if a roost with active nest is detected)	Metro	Metro		During Construction	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<ul style="list-style-type: none"> All work conducted on bridges shall occur during the day. If this is not feasible, lighting and noise shall be directed away from night roosting and foraging areas. Combustion equipment (such as generators, pumps, and vehicles) shall not be parked or operated under a bridge. Construction personnel shall not be present directly under a roosting colony. Construction activities shall not severely restrict airspace access to the roosts. Removal of mature trees that provide suitable bat roosting habitat shall be conducted outside of the maternity season (May 1 through August 31); that is, removal shall be conducted between September 1 and April 30. Because bats may be present in a torpid state during the winter, suitable roosting habitat shall be removed before the onset of cold weather (approximately November 1) or as determined by a qualified bat biologist). When removing palm trees, the dead fronds shall be removed first before felling the palm to allow any bats to escape. 							
BIO-2 MBTA Species: Vegetation removal shall be conducted outside of the bird nesting season (February 1 through September 30) to the extent feasible. If vegetation removal cannot be conducted outside of the nesting season, a Metro-approved qualified bird biologist shall conduct preconstruction surveys to locate active nests within 7 days prior to vegetation removal in each area with suitable nesting habitat. If nesting birds are found during preconstruction surveys, an exclusionary buffer (150 feet for passerines and 500 feet for raptors) suitable to prevent nest disturbance shall be established by the biologist. The buffer may be reduced based on species-specific and site-specific conditions as determined by the qualified biologist. This buffer shall be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or vegetation removal shall not be conducted within the buffer until the biologist determines that the young have fledged or the nest is no longer active. Exclusionary devices (hard surface materials, such as plywood or plexiglass, flexible materials, such as vinyl, or a similar mechanism that keeps birds from building nests) shall be installed over suitable nest sites at the bridges that will be removed or that will have modifications to the substructure before the nesting season (February 1 through September 30) to prevent nesting at the bridges by bridge- and crevice-nesting birds (i.e., swifts and swallows). Netting shall not be used as an exclusionary material because it can injure or kill birds, which would be in violation of the MBTA. In addition, if work on existing bridges with potential nest sites that will be removed or will have modifications to the substructure is to be conducted between February 1 and September 30, all bird nests shall be removed prior to February 1. Immediately prior to nest removal, a qualified biologist shall inspect each nest for the presence of torpid bats, which are known to use old swallow nests. Nest removal shall be conducted under the guidance and observation of a qualified biologist. Removal of swallow nests on bridges that are under	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Retain a qualified bird biologist	Metro	Metro		Prior to Construction	—	—
	Conduct preconstruction bird surveys	Metro	Metro		Within 7 days prior to vegetation removal	—	—
	Implement/mark exclusionary buffer (only if nesting birds identified during pre-construction surveys)	Contractor	Metro		Prior to vegetation removal until nest is no longer active	—	—
	Install exclusionary devices (only if suitable nests are identified during preconstruction surveys)	Contractor	Metro	Phase B	Prior to February 1 (before bridge modifications at Vignes Street and Cesar Chavez Avenue)	—	—
	Remove bird nests	Contractor	Metro	Phase B	Prior to February 1 (before bridge modifications at Vignes Street and Cesar Chavez Avenue)	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
construction shall be repeated as frequently as necessary to prevent nest completion unless a nest exclusion device has already been installed. Nest removal and exclusion device installation shall be monitored by a qualified biologist. Such exclusion efforts shall be continued to keep the structures free of swallows until October or the completion of construction.							
BIO-3 Protected Trees: Preconstruction surveys for protected trees (native trees 4 inches or more in cumulative diameter, as measured at 4.5 feet above the ground level, that are subject to protection under Ordinance No. 177404, Preservation of Protected Trees of the City of Los Angeles' municipal code, including oaks, southern California black walnut, western sycamore, and California bay), shall be conducted by a registered consulting arborist with the American Society of Consulting Arborists at least 120 days prior to construction. The locations and sizes of all protected trees shall be identified prior to construction and overlaid on project footprint maps to determine which trees may be protected in accordance with Ordinance No. 177404. The registered consulting arborist shall prepare a Protected Tree Report and shall submit three copies to the City of Los Angeles Department of Public Works. Any protected trees that must be removed due to project construction shall be replaced at a 2:1 ratio (or up to a 4:1 ratio for protected trees on private property) except when the protected tree is relocated on the same property, the City of Los Angeles has approved the tree for removal, and the relocation is economically reasonable and favorable to the survival of the tree. Each replacement tree shall be at least a 15-gallon specimen, measuring 1 inch or more in diameter, 1 foot above the base, and shall be at least 7 feet in height measured from the base.	Retain a registered arborist to conduct preconstruction surveys and prepare a Protected Tree Report	Metro	Metro	Phase A and B	180 days prior to Construction	—	—
	Conduct preconstruction protected tree surveys	Metro	Metro		120 days prior to Construction	—	—
	Prepare Protected Tree Report	Metro	Metro		Prior to Construction	—	—
	Replace and/or relocate protected trees (as needed)	Metro	Metro		Within one year of removal of protected trees	—	—
Hydrology and Water Quality							
HWQ-1 Prepare and Implement a SWPPP: During construction, Metro shall comply with the provisions of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (CGP) (Order No. 2009-0009-DWQ, NPDES No. CAS000002), and any subsequent amendments (Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ), as they relate to project construction activities. Construction activities shall not commence until a waste discharger identification number is received from the Stormwater Multiple Application and Report Tracking System. The contractor shall implement all required aspects of the SWPPP during project construction. Metro shall comply with the Risk Level 1 sampling and reporting requirements of the CGP. A rain event action plan shall be prepared and implemented by a qualified SWPPP developer within 48 hours prior to a rain event of 50 percent or greater probability of precipitation according to the National Oceanic and Atmospheric Administration. A Notice of Termination shall be submitted to SWRCB within 90 days of completion of construction and stabilization of the site.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Prepare and submit Notice of Intent	Contractor/Metro	SWRCB		Prior to Construction		
	Prepare SWPPP/	Contractor	Metro/RWQCB		Prior to Construction	—	—
	Implement SWPPP (including preparation of rain event action plans)	Contractor	RWQCB		During Construction	—	—
	Prepare and submit Notice of Termination	Contractor/Metro	SWRCB		90 days prior to completion of construction	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
HWQ-2 Final Water Quality BMP Selection (Caltrans ROW): Metro shall comply with the provisions of the Caltrans Statewide NPDES Permit (Order No. 2012-0011-DWQ, NPDES No. CAS000003), effective July 1, 2013 (known as the Caltrans MS4 permit). This post-construction requirement would only apply to the US-101 overhead viaduct improvements. Metro shall prepare a stormwater data report for the plans, specifications, and estimate phase that will address post-construction BMPs for the US-101 overhead viaduct in accordance with the Caltrans Project Planning and Design Guide (latest edition).	Incorporate applicable NPDES requirements (for the portions of project within Caltrans ROW) into applicable construction documents (plans and specifications)	Metro	Caltrans	Phase A and B	Final Design	—	—
	Prepare a stormwater data report	Metro	Caltrans		Final Design	—	—
HWQ-3 Final Water Quality BMP Selection (Railroad ROW): For the portion of the project outside Caltrans ROW, Metro shall comply with the NPDES General Permit for Waste Discharge Requirements for Stormwater Discharges from Small MS4 (Order No. 2013-0001-DWQ, NPDES No. CAS000004), effective July 1, 2013 (known as the Phase II permit).	Incorporate applicable NPDES requirements into plans into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	Final Design	—	—
HWQ-4 Final Water Quality BMP Selection (City of Los Angeles): Metro shall comply with the NPDES Waste Discharge Requirements for MS4 Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (Order No. 2012-0175, NPDES No. CAS004001), effective December 28, 2012 (known as the Phase I Permit). This post-construction requirement shall apply to the entire project except for those portions under the jurisdiction of the Caltrans MS4 Permit and the Phase II Permit. Metro shall prepare a final LID report in accordance with the City of Los Angeles <i>Planning and Land Development Handbook for Low Impact Development</i> (LID Manual), May 9, 2016. This document shall identify the required BMPs to be in place prior to project operation and maintenance.	Incorporate applicable NPDES requirements (project wide) into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	Final Design	—	—
	Prepare a final LID report	Metro	City of Los Angeles		Final Design	—	—
HWQ-5 Comply with Local Dewatering Requirements: The contractor shall comply with the provisions of the General Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, NPDES Permit No. CAG994004), effective July 6, 2013 (known as the Dewatering Permit), as they relate to discharge of non-stormwater dewatering wastes. The two options to discharge shall be to the local storm drain system and/or to the sanitary sewer system, and the contractor shall obtain a permit from the RWQCB and/or the City of Los Angeles, respectively.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Obtain Dewatering Permits (as needed)	Contractor	RWQCB/City of Los Angeles		Prior to Construction (Dewatering Activities)	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures		Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
							Initial	Date
HWQ-6	Comply with Local Dewatering Requirements for Contaminated Sites: The contractor shall comply with the provisions of the General Waste Discharge Requirements for Discharges of Treated Groundwater from Investigation and/or Cleanup of Volatile Organic Compounds-Contaminated Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0043, NPDES Permit No. CAG914001), effective April 7, 2013 (known as the Dewatering Permit for contaminated sites), for discharge of non-stormwater dewatering wastes from contaminated sites affected during construction. The two options to discharge shall be to the local storm drain system and/or to the sanitary sewer system, and the contractor shall require a permit from the RWQCB and/or the City of Los Angeles, respectively.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Obtain Dewatering Permits for Contaminated Sites (as needed)	Contractor	RWQCB/City of Los Angeles		Prior to Construction (Dewatering Activities on Contaminated Sites)	—	—
HWQ-7	Prepare and Implement Industrial SWPPP for Relocated, Regulated Industrial Uses: Metro shall comply with the NPDES General Permit for Stormwater Discharges Associated with Industrial Activities (IGP; Order No. 2014-0057-DWQ, NPDES No. CAS000001) for demolished, relocated, or new industrial-related properties impacted by the project. This shall include preparation of industrial SWPPP(s), as applicable.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
		Prepare Industrial SWPPP for relocated, regulated industrial uses	Contractor	RWQCB		Prior to Construction (on Industrial Sites)	—	—
Geology and Soils								
GEO-1	Prepare Final Geotechnical Report: During final design, a final geotechnical report shall be prepared by a licensed geotechnical engineer (to be retained by Metro). The final geotechnical report shall address and include site-specific design recommendations on the following: <ul style="list-style-type: none">• Site preparation• Soil bearing capacity• Appropriate sources and types of fill• Liquefaction• Lateral spreading• Corrosive soils• Structural foundations• Grading practices The recommendations shall be prepared to mitigate the risk of seismic ground shaking and ground failure, including liquefaction. In addition to the recommendations for the conditions listed above, the report shall include results of subsurface testing of soil and groundwater conditions, and shall provide recommendations as to the appropriate foundation designs that are consistent with the latest version of the CBC, as applicable at the time building and grading permits are pursued. Additional recommendations shall be included in that report to provide guidance for design of project-related infrastructure in accordance with Metro Rail Design Criteria, Manual for Railway	Prepare final geotechnical report	Metro	Metro	Phase A and B	During Final Design	—	—
		Incorporate site-specific recommendations of the final geotechnical report into applicable construction documents (plans and specifications)	Metro	Metro		During Final Design	—	—
		Construct infrastructure per the site-specific geotechnical recommendations	Contractor	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
Engineering, California High-Speed Train Project Design Criteria, California Amendments to the American Association of State Highway and Transportation Officials Load and Resistance Factor Design Bridge Design Specifications, and applicable local city codes (Appendix L of this EIR). The project shall be designed and constructed to comply with the site-specific recommendations as provided in the final geotechnical report to be prepared.							
Hazards and Hazardous Materials							
HAZ-1 Prepare a Construction Hazardous Materials Management Plan: Prior to construction, an HMMP shall be prepared by Metro that outlines provisions for safe storage, containment, and disposal of chemicals and hazardous materials, contaminated soils, and contaminated groundwater used or exposed during construction, including the proper locations for disposal. The HMMP shall be prepared to address the area of the project footprint, and would include, but shall not be limited to, the following: <ul style="list-style-type: none"> A description of hazardous materials and hazardous wastes used (29 CFR 1910.1200) A description of handling, transport, treatment, and disposal procedures, as relevant for each hazardous material or hazardous waste (29 CFR 1910.120) Preparedness, prevention, contingency, and emergency procedures, including emergency contact information (29 CFR 1910.38) A description of personnel training including, but not limited to: (1) recognition of existing or potential hazards resulting from accidental spills or other releases; (2) implementation of evacuation, notification, and other emergency response procedures; (3) management, awareness, and handling of hazardous materials and hazardous wastes, as required by their level of responsibility (29 CFR 1910) Instructions on keeping Safety Data Sheets on site for each on-site hazardous chemical (29 CFR 1910.1200) Identification of the locations of hazardous material storage areas, including temporary storage areas, which shall be equipped with secondary containment sufficient in size to contain the volume of the largest container or tank (29 CFR 1910.120). 	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	Prior to Construction	—	—
	Prepare Hazardous Materials Management Plan	Contractor	Metro		Prior to Construction	—	—
	Implement Hazardous Materials Management Plan	Contractor	Metro		During Construction	—	—
HAZ-2 Prepare Project-wide Phase II ESA (based on completed Phase I ESA): Prior to final design, a Phase II Environmental Site Investigation shall be prepared to focus on likely sources of contamination (based on completed Phase I ESA) for properties within the project footprint that would be affected by excavation. Phase II activities shall consist of: <ul style="list-style-type: none"> Collection of soil, groundwater, and soil vapor samples from borings, for geologic analysis and collection/submittal of samples to an environmental 	Prepare Phase II ESA Investigation	Metro	Metro	Phase A and B	Prior to Final Design	—	—
	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro		Prior to Construction	—	—
	Implement Phase II recommendations/findings	Contractor	Metro		During Construction	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
laboratory for implementation of an analytical program. Sampling shall be based on the findings of the Phase I ESA for the project area. <ul style="list-style-type: none"> Laboratory analysis of samples for contaminants of concern, which vary by location, but may include: VOCs, PAHs, TPHs, and California Title 22 metals. A Phase II ESA Report shall be prepared that summarizes the results of the drilling and sampling activities, and provides recommendations based on the investigation’s findings. Metro shall implement the Phase II ESA findings. The Phase II ESA shall be conducted under the direct supervision of a Professional Geologist, licensed in the State of California, with expertise in environmental site assessments and evaluation of contaminated sites.							
HAZ-3 Prepare a General Construction Soil Management Plan: Prior to construction, Metro shall prepare a General Construction Soil Management Plan that includes general provisions for how soils will be managed within the project footprint for the duration of construction. Any soil imported to the project site for backfill shall be certified clean prior to use. General soil management controls to be implemented by the contractor and the following topics shall be addressed within the Soil Management Plan: <ul style="list-style-type: none"> General worker health and safety procedures Dust control Management of soil stockpiles Traffic control Stormwater erosion control using BMPs 	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Prepare Construction Soil Management Plan (project wide)	Contractor	Metro		Prior to Construction	—	—
	Implement Construction Soil Management Plan (project wide)	Contractor	Metro		During Construction	—	—
	Provide proof of certified clean imported soil	Contractor	Metro		During Construction	—	—
HAZ-4 Prepare Parcel-Specific Soil Management Plans and Health and Safety Plans: Prior to construction, Metro shall prepare parcel-specific Soil Management Plans for known contaminated sites and LUC-adjudicated sites for submittal and approval by DTSC. The plans shall include specific hazards and provisions for how soils will be managed for known contaminated sites and LUC-adjudicated sites. The nature and extent of contamination varies widely across the project footprint, and the parcel-specific Soil Management Plan shall provide parcel-specific requirements addressing the following: <ul style="list-style-type: none"> Soil disposal protocols Protocols governing the discovery of unknown contaminants Management of soil on properties within the project footprint with LUCs or known contaminants Prior to construction on individual properties with LUCs or known contaminants, a parcel-specific HASPs shall also be prepared for submittal and	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—
	Prepare parcel specific soil management plans (for known contaminated sites/LUC-adjudicated sites)	Metro/Contractor	DTSC		Prior to Construction	—	—
	Retain a Certified Industrial Hygienist to prepare parcel specific health and safety plans (for known contaminated sites/LUC-adjudicated sites)	Metro	Metro		Prior to Construction	—	—
	Prepare a parcel specific health and safety plans (for known contaminated sites/LUC-adjudicated sites)	Metro/Contractor	DTSC		Prior to Construction	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<p>approval by DTSC. The HASPs shall be prepared to meet OSHA requirements, Title 29 of the CFR 1910.120 and CCR Title 8, Section 5192, and all applicable federal, state and local regulations and agency ordinances related to the proposed management, transport, and disposal of contaminated media during implementation of work and field activities. The HASPs shall be signed and sealed by a Certified Industrial Hygienist, licensed by the American Board of Industrial Hygiene. In addition to general construction soil management plan provisions, the following parcel-specific HASPs provisions shall also be implemented:</p> <ul style="list-style-type: none"> • Training requirements for site workers who may be handling contaminated material • Chemical exposure hazards in soil, groundwater, or soil vapor that are known to be present on a property • Mitigation and monitoring measures that are protective of site worker and public health and safety <p>Prior to construction, Metro shall coordinate proposed soil management measures and reporting activities with stakeholders and regulatory agencies with jurisdiction, to establish an appropriate monitoring and reporting program that meets all federal, state, and local laws for the project, and each of the contaminated sites.</p>	<p>Coordinate proposed soil management measures and reporting activities with appropriate agencies including but not limited to SCRRA, City of Los Angeles, RWQCB</p>	Metro	Metro		Prior to Construction	—	—
HAZ-5 Land Use Covenant Sites and Coordination with the DTSC: Prior to construction on properties with a LUC, Metro shall coordinate with the DTSC regarding any plans specified in HAZ-4, construction activities, and/or public outreach activities needed to verify that construction activities on properties with LUCs would be managed in a manner protective of public health and the environment.	<p>Incorporate contractor responsibilities into applicable construction documents (plans and specifications)</p>	Metro	Metro	Phase A and B	During Final Design	—	—
	<p>Coordinate with DTSC on LUC sites</p>	Metro/Contractor	DTSC		Prior to Construction (on LUC sites)	—	—
HAZ-6 Halt Construction Work if Potentially Hazardous Materials/Abandoned Oil Wells are Encountered: Contractors shall follow all applicable local, state, and federal regulations regarding discovery, notification, response, disposal, and remediation for hazardous materials and/or abandoned oil wells encountered during the construction process.	<p>Incorporate contractor responsibilities into applicable construction documents (plans and specifications)</p>	Metro	Metro	Phase A and B	Prior to Construction	—	—
	<p>Halt work if potentially hazardous materials/abandoned wells are encountered</p>	Contractor	Metro		During Construction	—	—
HAZ-7 Compliance with the City of Los Angeles Building Code Methane Regulations: Prior to final design, Metro shall verify that the design of infrastructure improvements located within Methane Buffer Zones (as defined by LABOE) comply with the City of Los Angeles Building Code regulations set forth in Ordinances 175790 and 180619. The ordinances require evaluation of methane hazards and mitigation of a methane hazard, if one exists, depending on the severity of the hazard.	<p>Verify compliance with City of Los Angeles Building Code Methane Regulations</p>	Metro	City of Los Angeles	Phase A and B	During Final Design	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures		Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
							Initial	Date
HAZ-8 Pre-Demolition Investigation: Prior to the demolition of any structures constructed prior to the 1970s, a survey shall be conducted for the presence of hazardous building materials, such as asbestos-containing materials, lead-based paints, and other materials falling under the Universal Waste requirements. The results of this survey shall be submitted to Metro, and applicable stakeholders as deemed appropriate by Metro. If any hazardous building materials are discovered, prior to demolition of any structures, a plan for proper removal shall be prepared in accordance with applicable OSHA and the Los Angeles County Department of Public Health requirements. The contractor performing the work shall be required to implement the removal plan and shall be required to have a C-21 license in the State of California, and possess an A or B classification. If asbestos-related work is required, the contractor or their subcontractor shall be required to possess a California Contractor License (Asbestos Certification). Prior to any demolition activities, the contractor shall be required to secure the site and ensure the disconnection of utilities.	Incorporate contractor responsibilities into applicable construction documents (plans and specifications)	Metro	Metro	Phase A and B	During Final Design	—	—	
	Conduct pre-demolition survey (for buildings constructed prior to 1970 that require demolition)	Contractor	Metro		Prior to Building Demolition	—	—	
	Prepare Removal Plan (only if hazardous building materials are discovered during the pre-demolition survey)	Contractor	OSHA/Los Angeles County Department of Public Health		Prior to Building Demolition	—	—	
	Provide proof of appropriate licenses and certifications	Contractor	Metro		Prior to Building Demolition	—	—	
	Secure the site and disconnect utilities	Contractor	Metro		Prior to Building Demolition	—	—	
	Implement Removal Plan	Contractor	Metro		During Building Demolition	—	—	
	Cultural Resources							
HIST-1a	LAUS City of Los Angeles CHC Review and Consultation: Metro shall comply with the applicable Cultural Heritage Ordinance sections for LAUS as a Historic Cultural Monument by obtaining a Permit for Substantial Alteration and/or Permit for the Demolition or Relocation of a Site, Building or Structure Designated a Monument. Per Article 1, Section 22.171.14 of the City Cultural Heritage Ordinance, no person, owner or other entity shall demolish, alter, rehabilitate, develop, construct, restore, remove, or change the appearance of any Designated HCM without first having applied for and been granted a permit. The Director of Planning may refer a permit to the CHC when there is potential discrepancy between the proposal and the standards. The CHC may vote to object or not object to the issuance of a permit, for up to 180 days, with an additional 180-day extension to the objection period upon a vote of the City Council.	Obtain permit for substantial alteration, demolition, or removal of site, building, or structure.	Metro	City of Los Angeles Cultural Heritage Commission/Department of City Planning/Department of Building and Safety	Phase A and B	Prior to Construction (at LAUS)	—	—
HIST-1b	LAUS HABS-Like Documentation: Historic Resource Recordation: Impacts resulting from the demolition or alteration of character-defining features of LAUS shall be minimized through archival documentation of as-built and as-found condition. Prior to initiation of construction work at LAUS, Metro shall ensure that documentation of the character-defining features proposed for demolition is completed in a manner similar to a HABS, Level I survey documentation. The further documentation of LAUS shall include large-format photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified	Retain qualified architectural historian or historian who meets the Secretary of the Interior’s professional qualification standards for history and/or architectural history	Metro	Metro	Phase A and B	Prior to Construction (at LAUS)	—	—
		Conduct HABS-Like documentation and further documentation for all character defining features at LAUS	Metro	Metro		Prior to Construction (at LAUS)	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<p>architectural historian or historian who meets the Secretary of the Interior’s professional qualification standards for history and/or architectural history. The archival documentation shall be donated to a suitable repository, such as the City of Los Angeles Public Library.</p> <p>At a minimum, but not limited to, the following character-defining features shall be included in this documentation:</p> <ul style="list-style-type: none">• Pedestrian passageway• Ramps• Railings• Platforms• Butterfly shed canopies• South retaining wall• Terminal Tower• Car Supply/Maintenance Building• Cesar Chavez Avenue Undercrossing• Vignes Street Undercrossing (this bridge, which was constructed as part of LAUS, does not require additional individual HABS documentation)	Donate archival documentation to a suitable repository	Metro	Metro		Prior to Operation of New Modified Expanded Passageway (at LAUS)	—	—
HIST-1c LAUS Restoration of the Existing Passenger Concourse (west of pedestrian passageway): To ensure compatibility with the architecturally significant buildings that are part of LAUS and to mitigate the demolition or alteration of character-defining features at LAUS, the original passenger concourse shall be restored, where feasible, from an engineering and constructability standpoint, to its 1939 appearance in accordance with the Secretary of the Interior’s Standards for Restoration. The original passenger concourse is a distinct transitional space between the waiting hall and the pedestrian passageway, having a low and flat ceiling with chamfered, rectangular columns with flared capitals. The original passenger concourse presently contains multiple retail spaces, restrooms, Amtrak ticketing and baggage handling, and the entrance to the subterranean Red and Purple subway lines. This includes possible redesign of the entrance to the Metro Red Line Subway to be more compatible with the historic LAUS design. Metro shall design and implement the restoration in consultation with and with approval from the City of Los Angeles CHC and OHR prior to finalizing design.	Incorporate restoration design elements into applicable construction documents (plans and specifications)	Metro	Metro	Phase B	During Final Design	—	—
	Submit restoration design plans to the City of Los Angeles CHC and OHR.	Metro	City of Los Angeles CHC and OHR		During Final Design	—	—
	Implement the restoration design as approved	Contractor	City of Los Angeles CHC and OHR		During Construction	—	—
HIST-1d LAUS Educational Exhibit: Because the passenger interface (i.e., the pedestrian passageway, ramps, railings, and butterfly shed canopies) between the trains and the architecturally significant buildings at LAUS would be demolished and replaced by a new design, an educational display shall be created by Metro and installed at LAUS that could be viewed by the public and would demonstrate the history of LAUS and how it was used by past railroad passengers. Metro shall	Incorporate educational display into applicable construction documents (plans and specifications)	Metro	Metro	Phase B	During Final Design	—	—
	Submit educational display design plans to the City of Los Angeles CHC and OHR	Metro	City of Los Angeles CHC and OHR		During Final Design	—	—

Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
design and implement the educational display in consultation with the City of Los Angeles CHC and OHR prior to finalizing design.	Implement the educational display as approved	Metro	City of Los Angeles CHC and OHR		During Construction	—	—
HIST-2 William Mead Homes Consultation: Mitigation Measure AES-1 (described in Section 3.4, Aesthetics) requires coordination with HACLA on the aesthetic treatments for the proposed retaining wall and sound wall. Metro shall send copies of pertinent consultation documentation regarding proposed retaining wall and sound wall design and/or aesthetic treatments including plans, specifications, and other documentation to the City of Los Angeles OHR to keep them apprised of the consultation process.	Submit sound wall and aesthetic treatment design plans to the City of Los Angeles OHR	Metro	City of Los Angeles OHR	Phase B	During Final Design	—	—
	Implement the aesthetic treatments as approved	Metro	City of Los Angeles OHR		During Construction	—	—
HIST-3 Friedman Bag Company: Textile Division Building-City of Los Angeles Office of Historical Resources Review and Consultation and HABS-Like Documentation: Prior to demolition, the character-defining features of the historical resource shall be photographed in a manner similar to HABS standards, submitted to OHR for review and approval, and the archival documentation shall be donated to a suitable repository, such as the City of Los Angeles Public Library.	Conduct HABS-like documentation of the Freidman Bag Company building	Metro	City of Los Angeles OHR	Phase A	Prior to Building Demolition (Friedman-Bay Company building)	—	—
	Submit documentation to OHR for review and approval	Metro	Metro		Prior to Building Demolition (Friedman-Bay Company building)	—	—
	Donate archival documentation to a suitable repository	Metro	Metro		Prior to Operation of Run-Through Service	—	—
HIST-4 North Main Street Bridge City of Los Angeles Cultural Heritage Commission Review and Consultation: Metro shall ensure that prior to construction, work proposed on all elements and character-defining features of the North Main Street Bridge, including, but not limited to, its sidewalks, decking, and wingwalls, shall follow the Secretary of Interior’s Standards for the Treatment of Historic Properties. The North Main Street Bridge is designated a LAHCM (#901). Pursuant to Article 1, Section 22.171.14 of the City Cultural Heritage Ordinance, no person, owner or other entity shall demolish, alter, rehabilitate, develop, construct, restore, remove, or change the appearance of the North Main Street Bridge without first having applied for and been granted a permit by the City of Los Angeles. The Director of Planning may refer a permit to the CHC when there is a potential discrepancy between the proposal and the standards. The commission may vote to object or not object to the issuance of a permit, for up to 180 days, with an additional 180-day extension to the objection period upon a vote of the City Council.	Obtain permit for any substantial alteration.	Metro	City of Los Angeles Cultural Heritage Commission/Department of City Planning/Department of Building and Safety	Phase A and B	Prior to Construction (at North Main Street Bridge)	—	—
HIST-5 Archaeological Site CA-LAN-1575/H: Preparation of a Cultural Resources Mitigation and Management Plan: Prior to construction, Metro’s qualified archaeologist, herein defined as a person who meets the Secretary of Interior’s Professional Qualification Standards in Archaeology and experienced in analysis and evaluation of the types of material anticipated to be encountered, shall develop a CRMMP that includes the treatment and management for known historical resources, determines thresholds of significance for each of the	Retain qualified archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards in Archaeology	Metro	Metro	Phase A and B	Prior to Construction	—	—
	Prepare CRMMP to meet minimum requirements of Mitigation Measure HIST-5	Metro	Metro/Caltrans		Prior to Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<p>feature types that may be encountered, and the process for treating unanticipated discoveries. The CRMMP shall contain a robust research design, a data recovery plan, a monitoring plan for sensitive areas, and a plan for the analysis and long-term curation of archaeological materials recovered during construction. The CRMMP shall detail the discovery protocol if human remains and/or funerary objects, sacred objects, and objects of cultural patrimony are encountered and shall include a plan for reburial in an appropriate location. The CRMMP shall be consistent with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation and the California Office of Historic Preservation's Archaeological Resources Management Reports: Recommended Contents and Format.</p> <p>Consulting Tribes under AB 52 for the project shall have the opportunity to review and comment on the Draft CRMMP. Provisions within the CRMMP may include arrangements with tribal representatives, for example, to respectfully reinter tribal resources on site if practicable.</p> <p>Caltrans shall have the opportunity to review and comment on the Draft CRMMP.</p> <p>The CRMMP shall include, at a minimum, the following:</p> <ul style="list-style-type: none">• Efforts to Preserve and Protect in Place: The CRMMP, per CEQA Guidelines 15162.4(b)(3), shall attempt to avoid impacts on Archaeological Site CA-LAN-1575/H and preserve in place any areas where significant components of Archaeological Site CA-LAN-1575/H are known to exist, if feasible.• Development of a Preconstruction Site-Specific Sensitivity Model: Final design feature location and the respective level and depth of ground disturbance shall serve as the basis for impacts on known locations of previously recorded archaeological features. Comparison of final design feature location with "as-built plans" especially as they relate to US-101 and historic maps for the area shall identify specific site features buried within the project study area, if any. Further, specific geotechnical boring results and past archaeological reports that identify depth of fill shall determine the level of sensitivity to encounter archaeological remains for each construction component. A three-dimensional model or other relatable graphic depiction shall be created to assist Metro with the interpretation of potential archaeological impacts.• Phasing of Feature Testing in Advance of Construction, Excavation, and Recovery: The CRMMP shall contain very specific methodology regarding testing of known features identified through the development of the sensitivity model. Due to the extreme constraints posed by the project area location (affecting public transportation through closure of roads, etc.), testing shall occur as part of the preconstruction activities. This CRMMP shall also contain specific methodology regarding feature evaluation, data recovery, and analysis for reporting.• Archaeological Monitoring: The CRMMP shall identify monitoring locations and protocols based on the final design and potential impacts.	Provide Draft CRMMP to AB52 consulting Tribes for review and comment	Metro	Metro		Prior to completion of the CRMMP	—	—
	Implement the CRMMP, including WEAP training, monitoring, and reporting requirements	Contractor	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<p>Metro shall retain archaeological monitors who will be supervised by a qualified archaeologist. All archaeological monitors shall be trained in the types of materials they may encounter. The CRMMP shall rely on an Occupational Safety and Health Administration-qualified determinations in regard to the safety of monitoring locations and the potential for contaminated soils or other hazards.</p> <ul style="list-style-type: none">• Native American Monitoring: The CRMMP shall identify Native American monitoring locations and protocols based on the final design and potential impacts. Metro shall retain Native American monitors consistent with the requirements detailed in Mitigation Measure TCR-1. The CRMMP shall rely on Occupational Safety and Health Administration-qualified determinations in regard to the safety of monitoring locations and the potential for contaminated soils or other hazards.• WEAP Training: A qualified archaeologist shall be retained to prepare a cultural resource-focused WEAP training that shall be given to all ground-disturbing construction personnel to minimize harm to Archaeological Site CA-LAN-1575/H and any previously undiscovered archaeological resources. Topics to be included for WEAP training shall be identified in the CRMMP. All site workers shall be required to complete WEAP Training, with a focus on cultural resources, including education on the consequences of unauthorized collection of artifacts, and a review of discovery protocol. WEAP training shall also explain the requirements of mitigation measures that must be implemented during ground-disturbing construction activities in archaeologically sensitive areas.• Archaeological Reporting: All archaeological reports shall meet the requirements set forth for reporting in the CRMMP and be submitted to Metro.<ul style="list-style-type: none">○ <i>Evaluation and Data Recovery Reports:</i> Where archaeological evaluation and data recovery are required, the results shall be documented in an evaluation and data recovery report. This document shall summarize the evaluation efforts and data recovery results. For each site or feature that undergoes data recovery, the report shall be prepared in accordance with the guidelines established by the Secretary of the Interior's Standards for Archaeological Documentation and the OHP's Archaeological Resource Management Reports: Recommended Contents and Format.○ <i>Archaeological Monitoring Report:</i> Metro's qualified archaeologist shall prepare a yearly written report detailing monitoring activities performed at Archaeological Site CA-LAN-1575/H and at any other previously undiscovered archaeological site. A final monitoring report shall be written by Metro's qualified archaeologist upon completion of grading and excavation activities within cultural bearing soils. The yearly report shall include the results of the fieldwork for the time period and all appropriate laboratory and analytical studies that were performed in conjunction with excavations.							

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
<ul style="list-style-type: none">Curation of Archaeological Collections: Archaeological collections are comprised of several components, including but not limited to artifacts, environmental and dating samples, field documentation, laboratory documentation, photographic records, related historical documents, and reports. All artifacts, notes, photographs, and other materials recovered during the monitoring program related to Archaeological Site CA-LAN-1575/H, and any historical resource encountered during construction shall be curated or reburied by Metro, following the specific guidelines presented in the CRMMP.							
HIST-6 Development of a Public Participation or Outreach Plan for P-19-001575 (Archeological Site CA-LAN-1575/H): Prior to construction, Metro shall develop a public outreach and educational plan that includes continued consultation and input from Native American Tribes consulting under AB 52; cultural resource professionals, including but not limited to, qualified archaeologists, historians, and/or architectural historians, and other potential stakeholders, such as local historic societies. The plan may include visual/educational exhibits or murals within LAUS, the development of an educational telephone application, or other published or digital educational material that may be used to inform the public regarding the significance of Historic Chinatown or earlier use and sacredness of the area as it relates to Native Americans.	Prepare public outreach and educational plan	Metro	Metro	Phase A and B	Prior to Construction (at LAUS)	—	—
PAL-1 Prepare a PMP: It is anticipated that Quaternary older alluvium or Puente Formation, which have a high sensitivity level, would be impacted during construction. A PMP shall be prepared by Metro’s qualified Paleontologist using final excavation plans to determine where these geologic units would be impacted, and Metro shall implement the PMP prior to the start of any ground-disturbing construction activities. The PMP shall include site-specific impact mitigation recommendations and specific procedures for construction monitoring and fossil discovery. The PMP shall include a requirement for full-time paleontological monitoring if excavations would occur within native Quaternary older alluvium and/or Puente Formation, with the exception of pile-driving activities. While pile-driving activities for foundation construction may impact paleontologically sensitive sediments due to the need for foundations to be within firm strata, this activity is not conducive to paleontological monitoring, as fossils would be destroyed by the construction process. Monitoring is not recommended for excavations that only impact artificial fill and Quaternary alluvium. The PMP shall detail a discovery protocol in the event potentially significant paleontological resources are encountered during construction. For example, the contractor shall halt surface disturbing activities in the immediate area (within a 25-foot radius of the discovery), and a qualified paleontologist shall make an immediate evaluation of the significance and appropriate treatment of the encountered paleontological resources in accordance with the PMP. If necessary, appropriate salvage measures and mitigation measures shall be developed in conformance with state guidelines and best practices.	Retain qualified paleontologist to prepare a PMP	Metro	Metro	Phase A and B	Prior to Construction	—	—
	Prepare PMP	Metro	Metro		Prior to Construction	—	—
	Implement PMP including full-time paleontological monitoring, discovery protocols, salvage measures, and evaluation and treatment of discovered paleontological resources	Metro	Metro		During Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program							
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance	
						Initial	Date
Construction activities may continue on other areas of the project site while evaluation and treatment of the discovered paleontological resources take place. Work may not resume in the discovery area until it has been authorized by a qualified paleontologist.							
PAL-2 WEAP Training: Metro’s qualified paleontologist shall prepare a paleontological resource-focused WEAP training that shall be given to all ground-disturbing construction personnel. All site workers shall be required to complete WEAP training with a focus on paleontological resources, including a review of what to do in the case of an unanticipated fossil discovery, as identified in the PMP.	Prepare a paleontological resource-focused WEAP Training.	Metro	Metro	Phase A and B	Prior to Construction	—	—
	Provide WEAP training to all ground-disturbing construction personnel	Contractor	Metro		Prior to Construction and during construction as new personnel join the project	—	—
PAL-3 Curation: Significant fossils recovered during construction shall be curated by Metro in perpetuity at an accredited repository, such as the Natural History Museum of Los Angeles County. These fossils shall be prepared, identified, and catalogued for curation (but not prepared for a level of exhibition of any salvaged specimens) by Metro’s qualified paleontologist. This includes removal of all or most of the enclosing sediment to reduce the specimen volume, increase surface area for the application of consolidants or preservatives, provide repairs and stabilization of fragile or damaged areas on a specimen, and allow identification of the fossils. All field notes, photographs, stratigraphic sections, and other data associated with the recovery of the specimens shall be deposited with the institution receiving the specimens.	Prepare, identify, and catalogue significant fossils recovered for curation	Metro	Metro	Phase A and B	During Construction	—	—
	Provide significant fossils recovered field notes, photographs, stratigraphic sections, and other data associated with the recovery of the specimens to an accredited repository for curation	Metro	Metro		Post Construction	—	—
HR-1 Human Remains: In the event that any human remains or related resources are discovered during construction, such resources shall be treated in accordance with applicable state and local regulations and guidelines for disclosure, recovery, relocation, and preservation, as appropriate. All construction affecting the discovery site shall immediately cease until the County Coroner is contacted (within 24 hours of the discovery of potential human remains, as required by CEQA Guidelines, Section 15064.5[e]), and the human remains are evaluated by the County Coroner for the nature of the remains and cause of death. The County Coroner must determine within 2 working days of being notified if the remains are subject to their authority. PRC Section 5097.98 requires that the immediate vicinity where the discovery occurred be subject to no further disturbances and be adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. If the remains are determined to be of Native American origin, the coroner shall contact the NAHC by phone within 24 hours, and the NAHC shall be asked to determine the most likely descendants who are to be notified or, if the remains are unidentifiable, to establish the procedures for burial within 48 hours of notification. All parties involved shall ensure that any such remains are treated in a respectful manner and that all applicable local, state, and federal laws are followed. This discovery protocol shall be included in the CRMMP.	Incorporate discovery protocol in the CRMMP (see Mitigation Measure HIST-5 above)	Metro	Metro	Phase A and B	Prior to Construction	—	—

Table 1. Mitigation Monitoring and Reporting Program								
Mitigation Measures	Compliance Action/Deliverable	Responsible Party	Enforcement Agency	Implementation Phase (A or B)	Monitoring/Compliance Schedule	Verification of Compliance		
						Initial	Date	
TCR-1 Native American Monitoring: To ensure TCRs are treated with culturally appropriate dignity, Metro shall retain a Native American monitor to be present at all phases of work with the potential to impact Archaeological Site CA-LAN-1575/H. A Native American monitor shall also be present at all phases of work with the potential to impact other previously undiscovered archaeological resources related to ethnohistoric or prehistoric archaeological deposits. The Native American monitor shall be selected from a tribal group with ancestral ties to this location, to be present alongside the archaeological monitor. The CRMMP shall guide Native American monitoring and shall include details on the potential discovery of previously undiscovered ethnographic and prehistoric archaeological deposits, human remains, and other sensitive resources.	Retain Native American Monitor for all phases of work with potential to impact Archaeological Site CA LAN 1575/H	Metro	Metro	Phase A and B	Prior to Construction	—	—	
	Incorporate Native American monitor requirements into CRMMP (see Mitigation Measure HIST-5 above)	Metro	Metro		During Construction (at LAUS)	—	—	

Notes:
AB=Assembly Bill; BMP=best management practice; Caltrans=California Department of Transportation; CARB=California Air Resources Board; CBC=California Building Code; CCR=California Code of Regulations; CEQA=California Environmental Quality Act; CFR=Code of Federal Regulations; CGP=construction general permit; CHC=Cultural Heritage Commission; CHSRA=California High-Speed Rail Authority; CRMMP=Cultural Resource Mitigation and Management Plan; DTSC=Department of Toxic Substance Control; EIR=environmental impact report; ESA=environmental site assessment; FTA=Federal Transit Administration; HABS=Historic American Buildings Survey; HACLA=Housing Authority of the City of Los Angeles; HCM=Historic-Cultural Monument; HMMP=Hazardous materials management plan; HSR=High-Speed Rail; IGP=industrial general permit; LA=Los Angeles; LABOE=Los Angeles Bureau of Engineering; LADOT=City of Los Angeles Department of Transportation; LAHCM=Los Angeles Historic-Cultural Monument; LAUS=Los Angeles Union Station; LID=low impact development; LOSSAN=Los Angeles-San Diego-San Luis Obispo; LUC=Land Use Covenant; MBTA=Migratory Bird Treaty Act; Metro=Los Angeles County Metropolitan Transportation Authority; MOU=memorandum of understanding; NAHC=Native American Heritage Commission; NPDES=National Pollutant Discharge Elimination System; OHR=Office of Historic Resources; OSHA=Occupational Safety and Health Administration; PAH=polynuclear aromatic hydrocarbon; PMP=Paleontological Mitigation Plan; PRC=Public Resources Code; RIO=River Improvement Overlay District; ROW=right-of-way; RWQCB=Regional Water Quality Control Board; SCAQMD=South Coast Air Quality Management District; SCORE=Southern California Optimized Rail Expansion; SCRRRA=Southern California Regional Rail Authority; SWRCB=State Water Resources Control Board; SWPPP=stormwater pollution prevention plan; TMP=traffic management plan; TPH=total petroleum hydrocarbons; VOC=volatile organic compound; WEAP=worker environmental awareness program

(THIS PAGE INTENTIONALLY LEFT BLANK)

**METROLINK®**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

2558 Supply Street Pomona, CA 91767

metrolinktrains.com

MEMORANDUM

Date: February 20, 2019

TO: Jeanet Owens, PE – Senior Executive Officer – Regional Rail, Metro
Will Ridder – Executive Officer – State Policy & Programming, Metro
Chad Edison – Deputy Secretary, Transportation - CalSTA
Michelle Boehm – Southern California Regional Director – CHSRA
Bruce Armistead – Director of Operations & Maintenance – CHSRA

FROM: Justin Fornelli, PE – Director, Engineering and Construction

RE: **Link Union Station (Link US) – North Loop and Number of Run-through Tracks**

The Link US project is a regionally critical project that will transform rail operation in and through Los Angeles Union Station (LAUS) for services currently operated by Southern California Regional Rail Authority or Metrolink (SCRRA), the Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency (LOSSAN), the National Passenger Railroad Corporation (Amtrak), and future services operated for the California High Speed Rail Authority (CHSRA). The Los Angeles County Metropolitan Transportation Authority (Metro) has requested the position of SCRRA related to two questions to guide Metro's design efforts during the preliminary engineering phase for the Link US Project:

- Is elimination of the "North Loop" in advanced design efforts acceptable?
- What track configuration (8 through tracks versus 10 through tracks) shall be advanced?

This memorandum is intended to memorialize SCRRA's position and concurrence on specific design considerations for the Link US Project at its current stage of 10% design and other considerations associated with operating the Metrolink system in a run-through configuration, to present our responses to the two key questions, and to present areas of concern that deserve continued attention and resolution. We feel our joint focus should be on reaching a consensus for the two run-through track design for the conventional regional rail operators, SCRRA and Amtrak within the allocated budget. Furthermore, we concur that our efforts should not preclude strategic features that support future expansion to CHSRA.

Please note that as SCRRA considers these questions, our key objectives incorporate several priorities:

- Introduction of through service to accommodate service/ridership growth;
- Improved access for passengers (platforms, ramps, concourse);
- State of good repair improvements; and
- Maintaining safe and reliable service throughout construction.

Elimination of North Loop

The elimination of the “North Loop” alignment of the Link US Project (noted in Exhibit A) to achieve a cost reduction and remain within the \$950M budget represents a substantial change to the functional design of the proposed facility. It would eliminate some combinations of run-through service (e.g. between the San Bernardino and Antelope Valley Lines) and reduce the added capacity of the expanded station, creating less new capacity to share between existing and prospective tenants. The elimination of the North Loop would also trigger the need to continue to make many turn-back moves and therefore negatively affects the capacity of this terminal.

A key benefit of the North Loop is to facilitate non-revenue moves between LAUS and the Central Maintenance Facility (CMF). Metrolink Lines that will benefit include Antelope Valley, Orange County, Riverside, San Bernardino, Ventura County and 91/Perris Valley Lines. Such moves are fundamentally critical to Metrolink’s current CMF-based equipment maintenance strategy. Our existing outlying maintenance facilities cannot support the type of maintenance activities that we currently undergo at the CMF, so the CMF remains as a critical location in our current operations plan.

Such moves may not be as critical in a future operating scenario with bidirectional service and equipment maintenance occurring at outlying points. The capital investments needed for these future operating scenarios remain largely unfunded, with existing outlying facilities only partially built, and new railroad maintenance facilities at new locations extremely difficult to develop and operate due to community concerns and environmental regulations.

As such, SCRRA conditionally agrees to move forward with the elimination of the North-Loop from the design under these conditions:

1. Further detailed operational analysis and network planning by SCRRA is required to determine the optimal future configuration of LAUS without the North Loop at two phases of operation – at the end of a first phase with just two run-through tracks (Phase A) and at the end of a second phase (Phase B) with use of two to four fewer platform tracks in the long-term operating configuration. This analysis and planning effort will be complete by Fall 2019.
2. Prior to beginning work on any stage of construction that takes any tracks or platforms out of service, Metro, in collaboration with SCRRA, shall prepare and test construction staging and operating plans that don’t degrade the existing performance and would in general sustain 94% on time performance (OTP) during

construction of both Phase A and Phase B. It is our understanding that the North Loop would have helped to mitigate construction impacts during Phase B construction.

3. Absent any future agreement or funding to transition to new operating strategies or complete the infrastructure needed for those new operating strategies, including but not limited to modifications and expansions to existing facilities (e.g. CMF, Eastern Maintenance Facility, Moorpark, Lancaster, and South Perris) and new facilities (e.g. Southside Turn Facility and Orange County Maintenance Facility), Metrolink shall operate at LAUS with the method of operation as it does today and with its planned level of service.

Run-through Tracks – 8 vs 10

Based on operating analyses conducted in partnership with CHSRA and Metro, SCRRA has determined that Metrolink's service goals, as defined in the Link US Rail Planning Technical Memorandum, may be best met with the use of six run-through tracks for conventional rail use, corresponding with three platforms at LAUS. The amount and length of turn back stub ended tracks is also important, especially for trains operating on routes that may not use the run-through capability for all runs (San Bernardino Line and the Riverside Line) or trains that need to be serviced at CMF. The optimum amount of run-through tracks and corresponding platforms for regional rail and CHSRA is a very complicated, interdependent planning challenge closely tied to the overall network operations.

SCRRA understands that CHSRA's desire is to expand from two tracks to four in the long-term future at LAUS. **Any such expansion shall not impact Metrolink operations – including protecting capacity for Metrolink's anticipated growth, as defined in the Link US Rail Planning Technical Memorandum.** This issue is most relevant if CHSRA desires to expand from two to four tracks at LAUS in the future.

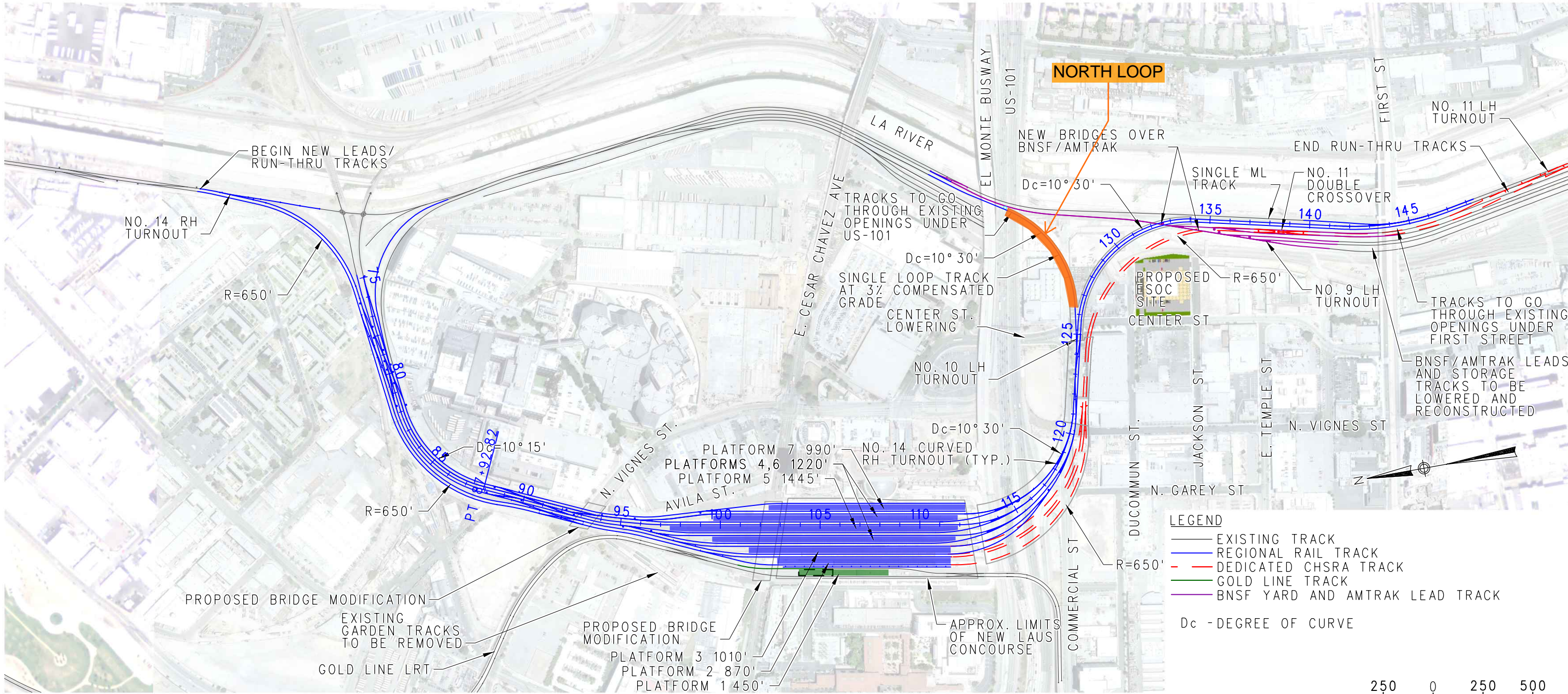
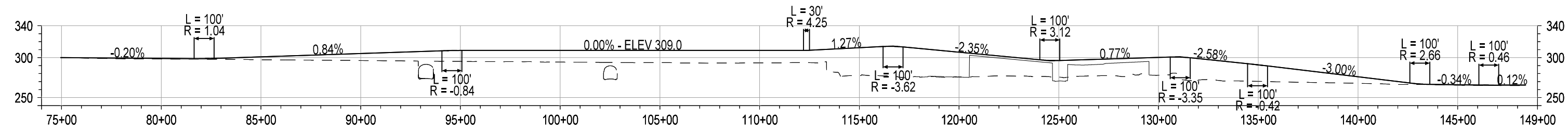
With regard to the present Metro-submitted 10% design, SCRRA agrees to move forward with the design of eight run-through tracks at LAUS under these conditions:

1. Ten tracks, six of which are run-through, are available for Metrolink and Amtrak, with compatible platform boarding heights in the long-term condition;
2. Should, in the future, CHSRA desire to convert any of those tracks and platforms to predominant CHSRA use, CHSRA shall not impact Metrolink operations, including protecting capacity for Metrolink's anticipated service growth. This could include shared platform use, technological and process improvements, and/or infrastructure investments (e.g. "Southside Turn Facility");

Closing Remarks

Given the significant impact of Link US to the operation of the rail system, there are many areas that still require coordination and satisfactory resolution beyond the current planning phase for the complete Link US concept to be fully accepted by SCRRA. There are design exceptions in the current design which cannot be considered final until SCRRA has completed our review and approval. We are committed to working with Metro, CHSRA, and LOSSAN to finalize the design to fulfill the needs of all operators during construction and through final build-out.

cc: Stephanie Wiggins – Chief Executive Officer, SCRRA
Darrell Maxey - Interim Chief Operating Officer, SCRRA
Elizabeth Lun – Interim Deputy Chief Operating Officer, SCRRA



5/15/2018 9:20:52 AM c:\pwworking\soc\d0967264\LOS-Exhibit 2_101r Shared-rev1.dgn pw\pwworking\soc\d0967264\LOS-Exhibit 2_101r Shared-rev1.dgn c:\pwworking\soc\d0967264\LOS-Exhibit 2_101r Shared-rev1.dgn



Little Tokyo Community Council
106 ½ Judge John Aiso Street, Suite 172
Los Angeles, CA 90012
213.293.5822 | info@littletokyo.org

ATTACHMENT H

Los Angeles County Supervisor Sheila Kuehl
Metro Board of Directors, Chair
Third Supervisorial District
sheila@bos.lacounty.gov
May 16, 2019

RE: Link US Project Draft EIR Public Comment Response Changes

Dear Honorable Supervisor Kuehl,

I am writing this letter on behalf of the Little Tokyo Community Council (LTCC) in support of the changes proposed in the Draft EIR for the Link US Project presented to us on April 23, 2019. Established in 1999, the LTCC is the nonprofit community coalition of residents, businesses, and religious, cultural, and community organizations as well as other vested stakeholders in the Little Tokyo community. By bringing together a broad range of stakeholders to speak with one voice, we protect, preserve, and promote the character and values of the historic Little Tokyo community.

During the 45-Day Public Review from January 17 to March 4 (2019), a number of community members and organizations representing various stakeholders in Little Tokyo submitted comment letters and online comments with concerns. The concerns mainly included opposing the above-grade passage way, negative construction impacts (air quality, rail operations, traffic) and the permanent closure of Vignes Street. We were pleased to see that the Link US Metro staff team took these public comments very seriously and is proposing direct solutions to them.

We support the following summary of proposed responses presented.

1. **Maintaining access to Vignes Street:** “the Final EIR Project would shift the run-through track alignment north; thereby avoiding the need to close Vignes Street or realign Commercial Street.”
2. **Minimal US-101 on-/off-ramp improvements:** “Changes to the SB US-101 Off-Ramp to Commercial Street are no longer required”
3. **No US-101 HOV lane reconfiguration:** “Reconfiguration...is not part of the proposed project because no long term impacts on this facility would occur.”
4. **Alameda Street Bridge:** “The Link US Project would not cause long-term traffic impacts that would require widening of Alameda Street.”
5. **Minimizing simultaneous detours/closure of roads during construction & Advance notifications:** “Mitigation Measure TR-1 currently includes advanced notifications for the surrounding residents and communities. Mitigation measure TR-1 was modified to include provisions that restrict simultaneous closure of roads during construction during peak hours, where feasible.”
6. **Minimizing construction traffic impacts:** “With implementation of proposed mitigation, temporary construction-related impacts in the AM or PM peak-hour conditions would not result in significant traffic delays per LADOT guidelines.”



Little Tokyo Community Council
106 ½ Judge John Aiso Street, Suite 172
Los Angeles, CA 90012
213.293.5822 | info@littletokyola.org

ATTACHMENT H

LTCC appreciates the time the Link US Metro staff took to inform the community as well as finding alternatives to our various concerns. This is a great example of meaningful community engagement that can be modeled for ongoing Metro projects. Furthermore, we strongly recommend that the **Metro Board support these proposed changes to be included in the Final EIR** that are in direct response to addressing community concerns in Little Tokyo. If you have any questions, you may reach me at kristin@littletokyola.org . Thank you for taking the time to review our letter of support.

Sincerely,

Kristin Fukushima
Managing Director



**LITTLE TOKYO BUSINESS ASSOCIATION
LITTLE TOKYO BUSINESS IMPROVEMENT DISTRICT**

ATTACHMENT H

250 E. FIRST STREET #201
LOS ANGELES, CA 90012

Phone (213) 880-6875

Email: board@visittokyo.com

Website: www.visittokyo.com

BOARD OF DIRECTORS

President

Mike Okamoto (Nisei Week Foundation)

Co-Chairs, Little Tokyo BID

Ellen Endo (Hapa Consulting/The Rafu Shimpō)

Joanne Kumamoto (Kumamoto Associates)

Senior Vice Presidents

Sylvia Ena (New Japan Travel/KW Realty)

Tomoko Omura (Manufacturers Bank)

Haru Takehana (Takehana Real Estate Services)

Vice Presidents

Paul Abe (Union Bank)

Hironori Yonezawa (Miyako Hotel L.A.)

David Kudo (All Japan News)

Hiroshi Yamauchi (Kouraku Restaurant)

Secretary

Yuriko Shikai (Neufeld Marks)

Treasurer

Andrew Lee (Advance Investments)

Auditor

Edwin Takahashi (Kiyohara & Takahashi LLP)

Directors

Doug Aihara (Aihara & Associates Insurance)

Yoshitaka Ena (New Japan Travel Center)

James Choi (Café Dulce)

Angela DeGroot (Japanese Village Plaza)

Thornton Dickerson (Pacific Commerce Bank)

Miho Yanagisawa Groia (Sperry Commercial)

Tamako Henken (Henken Galleries)

David Ikegami (Taira Investment/Taira Services)

Nobo Kakuma (NT Auto Repair)

Yoko Kawaguchi (independent)

Chris Komai (Little Tokyo Community Council)

Brian Manley (Hikari/Sakura Crossing Apts)

Herbert Martinez (Select Parking/LT Car Wash)

Donegan McCuaig (DTLA Realty)

Rev. Howard Miyoshi (Zenshuji Temple)

Yoshio Morioka (Hiroshima Kenjinkai)

Kitty Sankey (Japanese Chamber of Commerce)

Tetsu Shiota (Anime Jungle)

Kenji Suzuki (Suehiro Restaurant)

Nancy Takayama (independent)

Jason Toyoshima (Sushi Gen Restaurant)

Yoshiko Ueda (U&U Graphics)

June 8, 2019

Metropolitan Transportation Authority
Attn: Vincent Chio
Link US Deputy Project Manager
One Gateway Plaza, MS 99-17-2
Los Angeles, CA 90012

Re: Link Union Station Final EIR

Dear Mr. Chio,

Thank you for taking the time recently to share with us the updated plans for the Link Union Station (Link US) project. Most important, we appreciate the climate of mutual understanding that has emerged through meaningful two-day dialogue between our organization and your team.

The Little Tokyo Business Association (LTBA) and its Transportation Committee are pleased to be able to confirm our support for the Link US Final Environmental Impact Report (EIR) plan that allows the Vignes Street north-south traffic artery from Commercial Street to 1st Street to remain open and avoids the purchase of property, saving METRO \$120 million. The re-engineering has addressed the concerns we expressed previously that would have negatively impacted many of our community institutions, businesses and residents.

We encourage efforts to meet the region's long-term transportation needs, expand regional rail connectivity, and create opportunities for transit-oriented development and urge the METRO Board of Directors to approve the Link US Final EIR plan as currently configured.

Yours truly,

Masao "Mike" Okamoto
President

David Ikegami
LTBA Transportation Chair