ES.0 Executive Summary

ES.1 Introduction

The Los Angeles County Metropolitan Transportation Authority (Metro) is proposing the Link Union Station (Link US or project) project (proposed project) to transform Los Angeles Union Station (LAUS) from a "stub-end tracks station" into a "run-through tracks station" with a new passenger concourse that would improve the efficiency of the station and accommodate future growth and transportation demands in the region.

This environmental impact report (EIR) has been prepared in compliance with the California Environmental Quality Act (CEQA) Public Resources Code (PRC) Section 21000 et seq. and the CEQA Guidelines (Section 15000 et seq.), as promulgated by the California Resources Agency and the Governor's Office of Planning and Research. The purpose of this environmental document is to disclose the potential environmental impacts associated with the proposed project.

ES.2 Project Location and Study Area

LAUS is located at 800 Alameda Street in the City of Los Angeles (City), California. LAUS is bounded by US-101 to the south, Alameda Street to the west, Cesar Chavez Avenue to the north, and Vignes Street to the east. Figure ES-1 depicts the regional location and general vicinity of LAUS.

Figure ES-2 depicts the project study area, which encompasses the extent of environmental study associated with potential direct, indirect, and cumulative impacts from implementation of the project. The project study area includes three main segments (Segment 1: Throat Segment, Segment 2: Concourse Segment, and Segment 3: Run-Through Segment). The existing conditions within each segment are summarized north to south below.

- Segment 1: Throat Segment – This segment, known as the LAUS throat, includes the area north of the platforms, from Main Street at the north to Cesar Chavez Avenue at the south. In the throat segment, all arriving and departing trains traverse five lead tracks into and out of the rail yard, except for one location near the Vignes Street Bridge where the tracks reduce to four lead tracks. Currently, special track work consisting of multiple turnouts and double-slip switches are used in the throat to direct trains into and out of the appropriate assigned terminal platform tracks.
- Segment 2: Concourse Segment – This segment is between Cesar Chavez Avenue and US-101 and includes LAUS, the rail yard, the Garden Tracks (stub-end tracks where private train cars are currently stored, just north of the platforms and adjacent to the existing Gold Line aerial guideway), the East Portal building, the baggage handling building with aboveground parking areas and access roads, the ticketing/waiting halls, and the pedestrian passageway with connecting ramps and stairways below the rail yard.

- Segment 3: Run-Through Segment – This segment is south of LAUS and extends east/west from Alameda Street to the west bank of the Los Angeles River and north/south from Keller Yard to Control Point (CP) Olympic. This segment includes US-101, the Commercial Street/Ducommun Street corridor, Metro Red and Purple Lines Maintenance Yard (Division 20 Rail Yard), BNSF West Bank Yard, Keller Yard, the main line tracks on the west bank of the Los Angeles River, from Keller Yard to Control Point Olympic, and the "Amtrak Lead Track" connecting the main line tracks with Amtrak's Los Angeles Maintenance Facility. Businesses within the run-through segment are primarily industrial and manufacturing related.

The project study area has a dense street network ranging from major highways to local city streets. The roadways within the project study area include the El Monte Busway, US-101, Bolero Lane, Leroy Street, Bloom Street, Cesar Chavez Avenue, Commercial Street, Ducommun Street, Jackson Street, East Temple Street, Banning Street, First Street, Alameda Street, Garey Street, Vignes Street, Main Street, Aliso Street, Avila Street, Bauchet Street, and Center Street.

ES.3 Existing Conditions at Los Angeles Union Station

LAUS was opened for service in 1939 and is the central hub for regional transportation in Southern California, providing direct linkages for the Metro rail system (e.g., Red, Purple, and Gold Lines), Metrolink commuter trains, Amtrak intercity and long-distance trains, and Metro and municipal bus systems.

The existing LAUS does not have adequate operational and passenger capacity to serve future rail transportation needs. Rail yard operations and passenger circulation at LAUS are currently constrained, congested, and nearing capacity. The combination of limited throat track and stub-end track capacity, along with the limited concourse capacity resulting from the current configuration of the pedestrian passageway and platforms, restrict Metro's ability to accommodate the forecasted increase in rail and transit service (including accommodation of the planned High-Speed Rail [HSR] system) and corresponding increase in passenger capacity within the existing facility.

ES.4 Draft EIR Project

The Draft EIR proposed project consisted of the following major components and are depicted on Figure ES-3.

- Shared track alignment with one new lead track (six total lead tracks) and reconstruction of the throat north of LAUS
- Elevated rail yard and new above-grade passenger concourse with new expanded passageway
- Up to 10 run-through tracks (including a loop track)

Other project components included modifications to local streets south of US-101, including realignment of Commercial Street, closure of the Vignes Street connection to Commercial Street, and lowering of Center Street.

ES.5 Final EIR Project

Modifications to the Proposed Project after Draft EIR Public Review

The Draft EIR was distributed and made available for a 45-day public comment period from January 17, 2019, through March 4, 2019, pursuant to CEQA Guidelines Section 15105. Based on the substantial number of comments received regarding various aspects of the elevated portion of the above-grade passenger concourse, as well as the outcome of recent coordination activities with project funding partners on implementation of interoperable run-through service, Metro modified the proposed project in the Final EIR, as summarized below. Figure ES-4 depicts the modifications to the proposed project.

- Removal of Above-Grade Passenger Concourse – The Final EIR project includes modifications to the expanded passageway in the Draft EIR to include transit amenities so the elevated portion of the above-grade passenger concourse can be removed. The expanded passageway in the Draft EIR will be modified from a width of approximately 120 feet to 140 feet in the Final EIR, to include additional space for waiting areas, restrooms, retail areas, and other passenger amenities, while providing sufficient pedestrian capacity to meet the 2040 forecasted ridership at LAUS and points of safety to meet applicable building codes and National Fire Protection Association (NFPA) 130 requirements for safe evacuation
- Removal of Loop Track – Based on ongoing coordination with the project funding partners and rail operators, the loop track was removed from the project. The Final EIR project includes a modified run-through track alignment north of Commercial Street to reduce overall project impacts and improve interoperability for regional/intercity trains and future HSR trains to the main line along the west bank of the Los Angeles River. With removal of the loop track, the run-through track alignment south of LAUS would shift from approximately 125 to 150 feet to the north, thereby resulting in modifications to the associated run-through track infrastructure and civil improvements south of US-101. Removal of the loop track will result in six fewer property acquisitions and avoid the need to realign Commercial Street, lower Center Street, or close Vignes Street south of US-101.
- Removal of Construction Access Road on LAUS Property – Based on comments received expressing opposition to the use of an access road at the southern extent of the LAUS campus (which provides vehicular access to the First 5 LA Headquarters, La Petite Academy, and Metropolitan Water District of Southern California [MWD] building), the access road was removed from the Final EIR project.
- Removal of Construction Staging/Assembly Areas – Two laydown/staging areas identified in the Draft EIR were removed from the Final EIR project due to other projects already under construction

by the City and County of Los Angeles on the two parcels where staging areas were previously considered (i.e., City of Los Angeles Department of Transportation [LADOT] Bus Maintenance Facility and Los Angeles County Mental Health Treatment Center). Based on the modified run-through track alignment, two additional staging areas on the south side of Commercial Street between Garey Street and Center Street were also removed because the Final EIR project avoids direct physical impacts on the properties south of Commercial Street.

The Final EIR project was analyzed under all CEQA issue areas to demonstrate that the changes to the project have been adequately analyzed in the Draft EIR, and there is no need to recirculate the EIR. Based on the environmental evaluation presented in Table 2-2 of the Final EIR, Section 10.0 of the Final EIR, and Appendix P, the Final EIR project was determined to have no new significant impacts or substantially greater impacts as the Draft EIR project.

Table ES-1 summarizes the comparison of CEQA significance determinations between the Draft EIR and Final EIR.

Table ES-1. Comparison of CEQA Significance Determinations (after Mitigation) of Draft EIR to Final EIR

Environmental Issue Area	Draft EIR Project		Final EIR Project	
	Construction	Operations	Construction	Operations
Land Use and Planning	Less than significant	Less than significant	Similar	Similar*
Transportation	Less than significant	Significant and unavoidable	Similar*	Avoided
Aesthetics	Less than significant	Less than significant	Similar	Similar*
Air Quality and Global Climate Change	Significant and unavoidable	Less than significant	Similar	Similar
Noise and Vibration	Significant and unavoidable	Less than significant	Similar*	Similar*
Biological Resources	Less than significant	Less than significant	Similar*	Similar
Hydrology and Water Quality	Less than significant	Less than significant	Similar*	Similar*
Geology and Soils	Less than significant	Less than significant	Similar	Similar
Hazards and Hazardous Materials	Less than significant	Less than significant	Similar*	Similar
Utilities/Service Systems and Energy Conservation	Less than significant	Less than significant	Similar*	Similar*
Cultural Resources	Significant and unavoidable	No Impact	Similar*	Similar*
Public Services	Less than significant	Less than significant	Similar*	Similar*

Notes:
Avoided = Impacts avoided as compared to impacts of the Draft EIR.
Similar = Impacts of the Final EIR project similar to impacts of the Draft EIR project.
****The magnitude of impacts is reduced; although the CEQA Significance Determination remains the same.***

~~ES.3~~ES.6 Final EIR Project Overview

The ~~proposed~~ Final EIR project components are summarized north to south below and depicted on Figure ES-4.

- Throat and Elevated Rail Yard – The ~~proposed~~ Final EIR project includes subgrade and structural improvements in Segment 1 of the project study area (throat segment) to increase the elevation of the tracks leading to the rail yard. The ~~proposed~~ Final EIR project includes the addition of one new lead track in the throat segment for a total of six lead tracks to facilitate enhanced operations for regional/intercity rail service providers (Metrolink/Amtrak) and accommodate the planned ~~High Speed Rail (~~HSR~~)~~ system within a shared track alignment. Regional/intercity and HSR trains would share the two western lead tracks in the throat segment. The rail yard would be elevated approximately 15 feet. New passenger platforms ~~with individualized canopies~~ would be constructed on the elevated rail yard, with an underlying assumption that the platform infrastructure and associated vertical circulation elements (VCEs) (stairs, escalators, and elevators) would be modified at a later date to accommodate the planned HSR system. Platform 1 serving the Gold Line would be lengthened and may also be elevated to optimize east/west passenger circulation. The existing railroad bridges in the throat segment at Vignes Street and Cesar Chavez Avenue would also be reconstructed. North of Control Point Chavez, the ~~proposed~~ Final EIR project also includes safety improvements at the Main Street public-at-grade crossing on the west bank of the Los Angeles River (medians, restriping, signals, and pedestrian and vehicular gate systems) to facilitate future implementation of a quiet zone by the City of Los Angeles.
- New Modified Expanded Passageway~~Above-Grade Passenger Concourse with New Expanded Passageway~~ – The ~~proposed~~ Final EIR project would include~~s an above-grade passenger concourse with~~ expansion of the existing pedestrian ~~new expanded~~ passageway in Segment 2 of the project study area (concourse segment) to a 140-foot width to accommodate a substantial increase in passenger capacity, with enhanced passenger amenities, while providing points of safety to meet applicable building code and NFPA 130 requirements for safe evacuation. The new modified expanded passageway and associated concourse improvements would facilitate enhanced passenger circulation below the rail yard and provide space for ancillary support functions (back-of-house uses, baggage handling, etc.), transit-serving retail, and office/commercial uses) while creating an opportunity for an outdoor, community-oriented space with new plazas east and west of the elevated rail yard (East and West Plazas).~~The above-grade passenger concourse with new expanded passageway would include space dedicated for passenger circulation, waiting areas, ancillary support functions (back-of-house uses, baggage handling, etc.), transit-serving retail, office/commercial uses, and open spaces and terraces. The new passenger concourse would create an opportunity for an outdoor, community-oriented space and enhance Americans with Disabilities Act (ADA) accessibility at LAUS. The elevated portion of the above-grade passenger concourse would be located above the rail yard, approximately 90 feet above the existing grade with new plazas east and west of the elevated rail yard (East and West Plazas). The new expanded passageway would be located below the rail yard to provide additional passenger travel path convenience and~~

~~options.~~ Amtrak ticketing and baggage check-in services would be enhanced~~occur at two locations at the east and west ends of LAUS~~, and new carousels would be constructed ~~within the new expanded passageway~~in a centralized location under the rail yard. ~~The above-grade passenger concourse includes a~~A canopy would be constructed over the West Plaza ~~that would be~~ up to 70 feet in height.~~,~~ ~~with i~~Individual canopies that would extend up to 25 feet over each platform or a grand canopy that would extend up to 75 feet in height over the rail yard would also be constructed. Platform enhancements and amenities including a new or modified canopy and furnishings along Platform 4 may also be implemented in the interim condition. The new modified expanded passageway and associated concourse improvements would be functionally modern with enhanced safety elements, ADA accessibility, and passenger amenities in accordance with the basic project objectives. ~~New vertical circulation elements would also be constructed throughout the concourse to enhance passenger movements throughout LAUS while meeting ADA and National Fire Protection Association (NFPA) platform egress code requirements.~~

- Run-Through Tracks – The ~~proposed~~ Final EIR project includes up to 10 new run-through tracks (~~including~~ without a ~~new~~ loop track) south of LAUS in Segment 3 of the project study area (run-through segment). To improve interoperability for multiple rail service providers, run-through track infrastructure extending from LAUS to the area where the Amtrak lead track is located would be constructed on "common" infrastructure to support regional/intercity rail and HSR trains. Run-through track structures and embankments would be constructed wide enough to support regional/intercity rail run-through trains in the interim and full build-out condition, as well as future HSR trains in the full build-out with HSR condition. ~~The run-through tracks would facilitate connections for regional/intercity rail trains and HSR trains from LAUS to the main line tracks on the west bank of the Los Angeles River. A "common" viaduct/deck over US-101 and embankment south of US-101, from Vignes Street to Center Street, would be constructed wide enough to support regional/intercity rail run-through service, and future run-through service for the planned HSR system.~~

The ~~proposed~~ Final EIR project would also require modifications to US-101 and local streets (including potential street closures and geometric modifications); railroad signal, positive train control (PTC), and communications-related improvements; modifications to the Gold Line light rail platform and tracks; modifications to the main line tracks on the west bank of the Los Angeles River; modifications to Keller Yard and BNSF West Bank Yard (First Street Yard); modifications to the Amtrak lead track; new access roadways to the railroad right-of-way (ROW); additional ROW; new utilities; utility relocations, replacements, and abandonments; and new drainage facilities/water quality improvements.

Based on funding commitments, the project is proposed under the following two main phases.

- Phase A – Implementation of early action/interim improvements primarily associated with the regional/intercity rail run-through track infrastructure south of LAUS and necessary signal modifications, roadway modifications, and property acquisitions to facilitate new run-through service would occur in the interim condition (Phase A: 2026).

- Phase B – New lead tracks, the elevated rail yard, and the new modified expanded passageway would occur in the full build-out condition (Phase B: 2031).

Implementation of the planned HSR system could occur as early as 2033, and this scenario is identified as the full build-out with HSR condition.

Figure ES-1. Project Location and Regional Vicinity

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Figure ES-2. Project Study Area

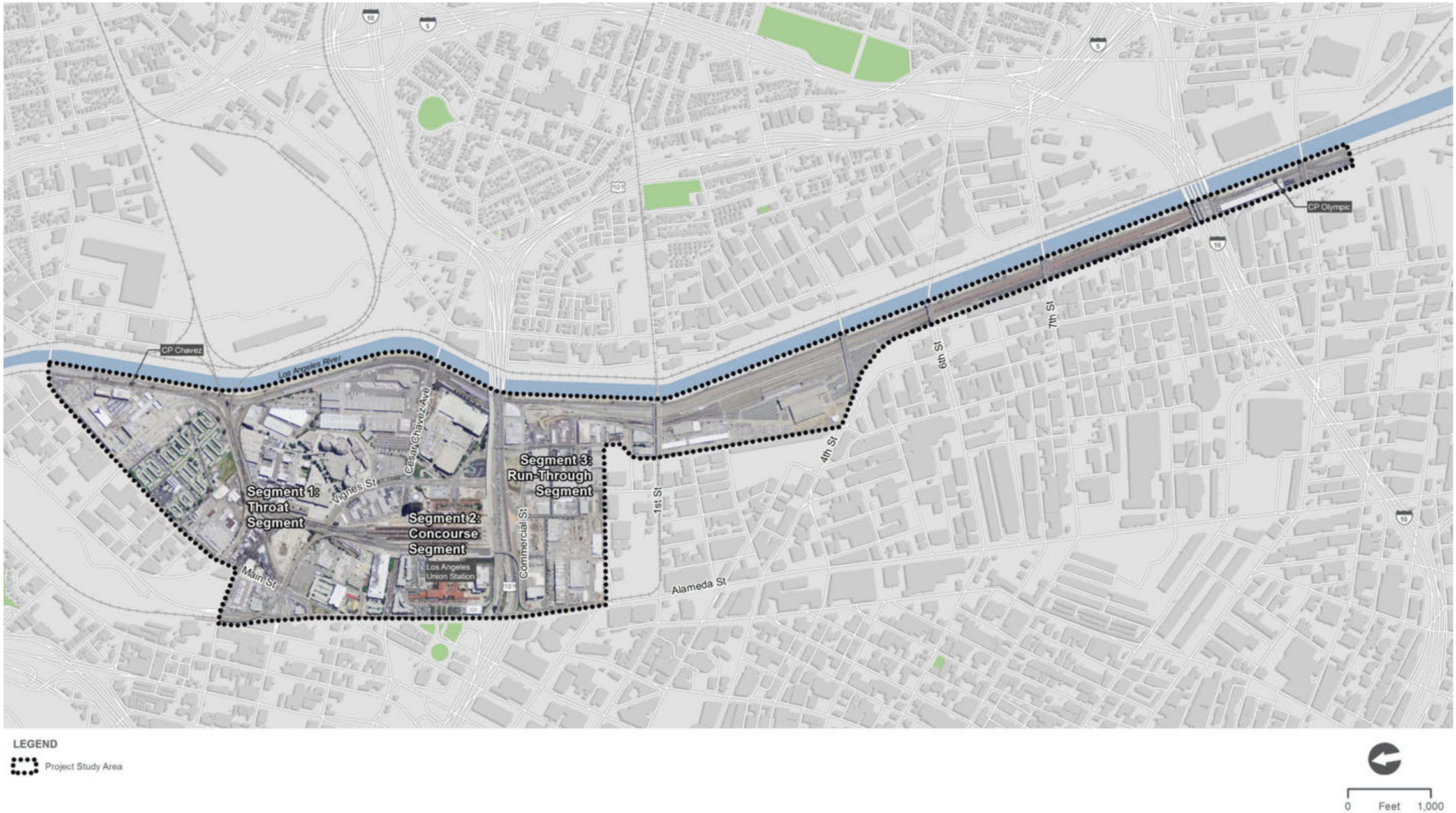

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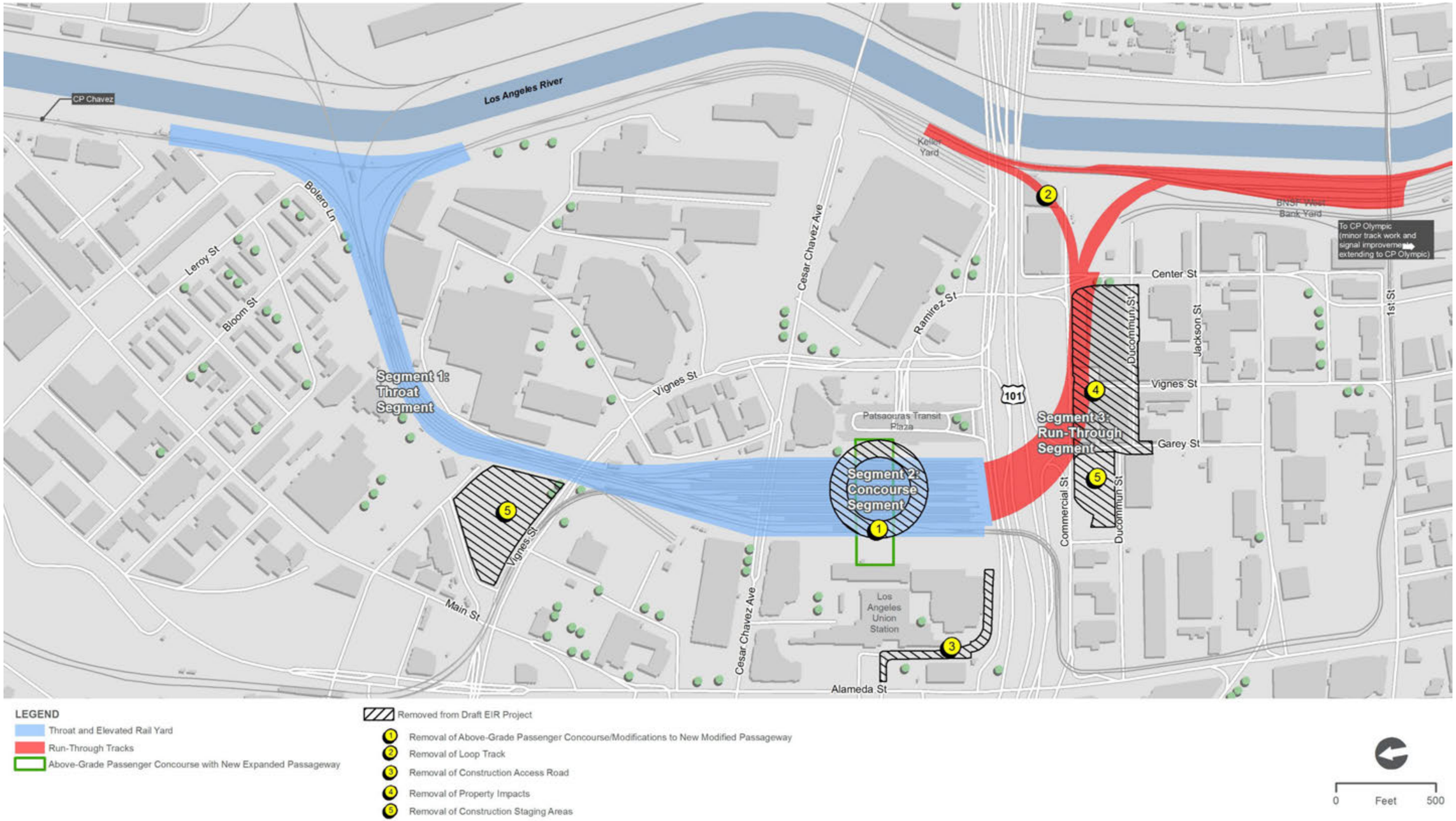
Figure ES-3. Major Draft EIR Project Components and Modifcations to Proposed Project



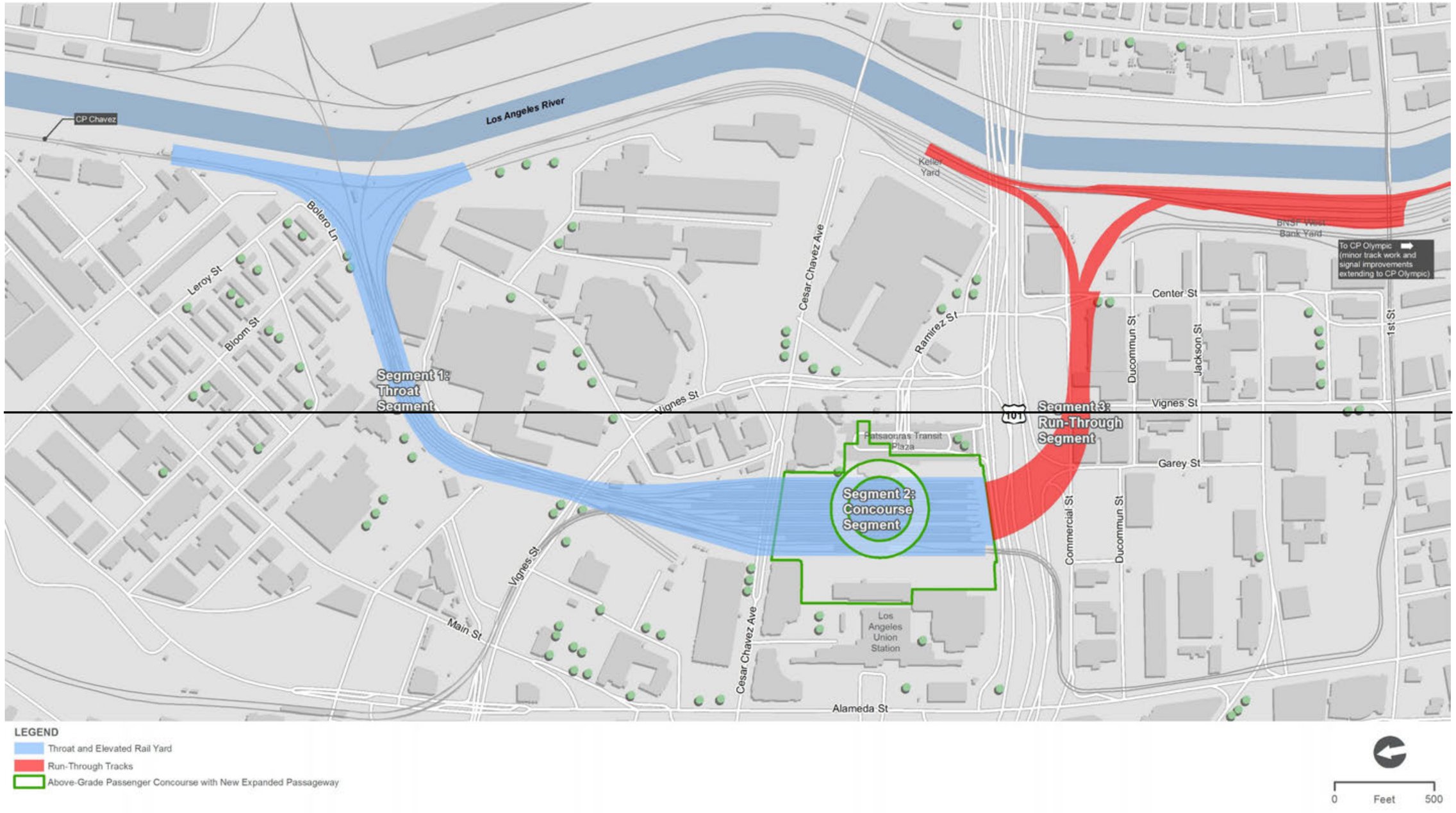
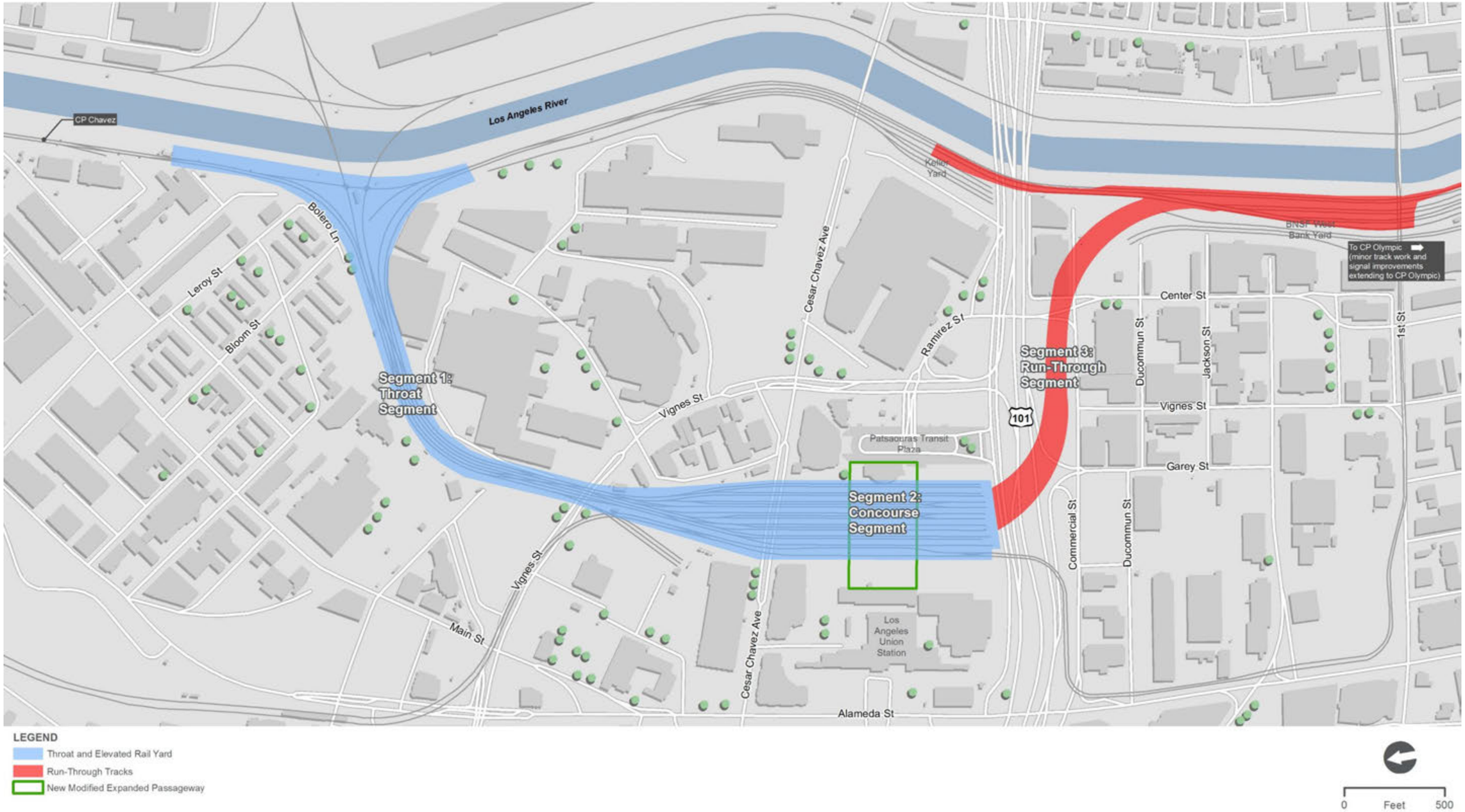

CP Chavez
Los Angeles River
Bolero Ln
Leroy St
Bloom St
Keller Yard
Cesar Chavez Ave
Ramirez St
BNSF West Bank Yard
To CP Olympic (minor track work and signal improvements extending to CP Olympic)
Center St
Ducommun St
Jackson St
1st St
Segment 1: Throat Segment
Vignes St
101
Segment 3: Run-Through Segment
Patsaouras Transit Plaza
Garey St
Segment 2: Concourse Segment
Commercial St
Ducommun St
Vignes St
Main St
Los Angeles Union Station
Cesar Chavez Ave
Alameda St
LEGEND
Throat and Elevated Rail Yard
Run-Through Tracks
Above-Grade Passenger Concourse with New Expanded Passageway
0
Feet
500

Figure ES-4. Major Final EIR Project Components



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~~ES.4~~ES.7 Project Objectives

Metro identified the following objectives for implementing the proposed project:

- Reduce train movement constraints resulting from stub-end operation by providing run-through service consistent with the *California State Rail Plan* (Caltrans 2018) and Southern California Optimized Rail Expansion (SCORE) Program
- Provide an expanded passenger concourse at LAUS that is functionally modern with enhanced safety elements, ADA accessibility, and passenger amenities
- Design track and platform infrastructure at LAUS necessary to accommodate the planned HSR system consistent with California Proposition 1A (High-Speed Rail Act), passed in 2008
- Maintain rail/transit service and minimize disruption to commuters during construction to the maximum extent feasible
- Avoid and minimize impacts on sensitive environmental resources to the maximum extent feasible, including, but not limited to, historical resources
- Contribute to a regional reduction of greenhouse gas (GHG) emissions and vehicle miles traveled (VMT)

~~ES.5~~ES.8 Anticipated Agency Involvement

The following agencies are anticipated to be involved during project development and construction:

- Federal Railroad Administration (FRA)
- California High-Speed Rail Authority (CHSRA)
- Southern California Regional Rail Authority (SCRRA)
- California Department of Transportation (Caltrans)
- Federal Transit Administration (FTA)
- City of Los Angeles
- State Historic Preservation Officer (SHPO)
- ~~City~~ County of Los Angeles
- Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor Agency
- Amtrak
- California Environmental Protection Agency (Cal/EPA)
- California Division of Occupational Safety and Health
- Native American Heritage Commission (NAHC)

- California Public Utilities Commission (CPUC)
- California Department of Toxic Substances Control (DTSC)
- Regional Water Quality Control Board (RWQCB), Region 4
- Southern California Association of Governments (SCAG)
- South Coast Air Quality Management District (SCAQMD)

~~ES.6~~ES.9 CEQA Responsible and Trustee Agencies

The information in this EIR may also be used by other agencies involved with the project that have a responsibility under CEQA, including, but not limited to, the following:

- Caltrans
- CHSRA
- SCRRA
- City of Los Angeles

The California Department of Fish and Wildlife (CDFW) is a CEQA trustee agency (Section 15386[a] of the CEQA Guidelines) and must be notified if the project involves fish and wildlife of the state's rare and endangered native plants, wildlife areas, and ecological reserves.

~~ES.7~~ES.10 Anticipated Permits, Discretionary Actions, and Agency Approvals

The CEQA Guidelines require that an EIR identify the regulatory approvals anticipated for a project. This includes a list of responsible agencies other than the lead agency, which have discretionary approval authority over the project. The following agencies, at minimum, are expected to use this EIR for project-related discretionary actions and permitting processes:

- Metro – Metro is responsible for adopting findings of fact, a mitigation monitoring and reporting program, and a statement of overriding considerations, along with certifying the EIR. Metro, as the project owner, would also be responsible for administering construction of the project.
- Caltrans – Caltrans is responsible for issuing an encroachment permit for proposed infrastructure within Caltrans ROW.
- City of Los Angeles – The City of Los Angeles is responsible for processing any general plan amendment that may be required for project-related roadway modifications and/or street vacations to reclassify roadways as appropriate within the *Mobility Plan 2035* (City of Los Angeles 2015). The City of Los Angeles may also require the contractor to seek approvals or exceptions to nighttime

noise restrictions during construction. Approvals for civil/public works improvements and/or traffic signal timing modifications may also be required.

- CHSRA – CHSRA is responsible for implementation of the planned HSR system through the project limits. The Link US EIR accommodates the planned HSR system and proposed infrastructure and is anticipated to be reflected as an existing condition in the environmental documents prepared for the Burbank to Los Angeles and Los Angeles to Anaheim Project Sections.

Cooperative third-party agreements would be established between Metro and a variety of public and private entities to implement various project-related infrastructure improvements.

~~ES.8~~ES.11 Summary of Impacts and Mitigation Measures

Table ES-2 summarizes Final EIR project-related environmental impacts, mitigation measures, and level of significance after implementation of proposed mitigation if applicable. Detailed analyses of these topics are provided in ~~Section 3.2 through Section 3.13~~ Table 2-2, Section 10.0, and Appendix P of this Final EIR.

~~ES.9~~ES.12 Significant and Unavoidable Environmental Impacts

Section 15216.2(b) of the CEQA Guidelines requires EIRs to include a discussion of any significant environmental impacts that cannot be avoided if the project is implemented. Table 2-2 and Section 10.0 of this Final EIR ~~Sections 3.2 through 3.13 of this EIR~~ provide a detailed analysis of all significant environmental impacts related to the Final EIR project; identifies feasible mitigation measures, where available, that could avoid or reduce these significant impacts; and presents a determination whether these mitigation measures would reduce these impacts to a level less than significant. Section 4.0, Cumulative Impacts, of this EIR identifies the significant cumulative impacts resulting from the combined impacts of the project and related projects considered in cumulative analysis. If a specific impact in either of these sections cannot be fully reduced to a less than significant level, it is considered a significant and unavoidable impact. Implementation of the ~~proposed~~ Final EIR project would result in significant and unavoidable impacts in the following issue areas: ~~transportation,~~ air quality, noise, and cultural resources. The following impacts would be significant and unavoidable even after the implementation of mitigation:

Construction (Short Term)

- Air quality (construction emissions would exceed the SCAQMD's daily criteria pollutant and localized significance thresholds)
- Noise (construction daytime and nighttime noise levels would exceed thresholds at William Mead Homes and Mozaic Apartments)

Operations (Long Term)

- ~~Traffic (increased delays at one intersection [Intersection #2: Garey Street and Commercial Street] in the 2031 and 2040 with project conditions would exceed the City of Los Angeles Department of Transportation [LADOT] guidelines)~~
- Cultural resources (substantial adverse change in the significance of the following historical resources: LAUS and Vignes Street Undercrossing and Friedman Bag Company – Textile Division Building)

If the Metro Board approves the project with significant and unavoidable impacts, Metro is required under CEQA to prepare a statement of overriding considerations.

~~ES.10~~ES.13 Project Alternatives

Section 15126.6(a) of the CEQA Guidelines requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." A summary of the alternatives evaluated in this EIR is provided below:

- No Project/No Build Alternative – The no project/no build alternative assumes that the project would not be implemented. LAUS would not be transformed from a stub-end tracks station into a run-through tracks station and the 28-foot-wide pedestrian passageway would continue to serve as the primary east to west connection for passengers at LAUS. Due to the constraints of the current stub-end configuration, train movements through LAUS are assumed to be similar to existing conditions. Operational capacity at LAUS would not be enhanced to meet the demands of the broader rail system, thereby further constraining Metro's ability to accommodate forecasted travel demands at LAUS.
- Build Alternative – The primary differences between the proposed project and the build alternative are related to the lead tracks north of LAUS and the new passenger concourse. The build alternative includes reconstruction of the throat with two new lead tracks that would occur outside of the existing railroad ROW, thereby facilitating a dedicated track alignment with a total of seven lead tracks. Reconfiguration of Bolero Lane and Leroy Street would be required. The build alternative includes an at-grade passenger concourse. All other infrastructure elements are similar to the proposed project.
- Reduced Historic Impact Alternative – The purpose of the reduced historic impact alternative is to avoid or substantially reduce the significant impacts on historical resources, archaeological resources, and paleontological resources. The reduced historic impact alternative includes preservation of the existing pedestrian passageway, reuse of the existing historic butterfly shed canopy structures, preservation of the Cesar Chavez Avenue and Vignes Street Undercrossings, and no modifications to the North Main Street Bridge.

A detailed discussion of the alternatives to the proposed project is provided in Section 5.0, Alternatives, of this EIR.

~~ES.11~~ES.14 CEQA Environmentally Superior Alternative

The no project/no build alternative would avoid the construction and operational impacts identified for the proposed project. However, the no project/no build alternative does not meet the project objectives. Additionally, CEQA Guidelines, Section 15126.6(e) requires that, if the environmentally superior alternative is the "no project alternative," the EIR shall also identify an environmental superior alternative among the other alternatives.

Compared with the proposed project, the reduced historic impact alternative would reduce impacts on cultural resources (historical resources, archaeological resources, and paleontological resources). Therefore, the reduced historic impact alternative is considered the environmentally superior alternative. This alternative would meet all of the project objectives, with exception of providing an expanded passenger concourse at LAUS that is functionally modern with enhanced safety elements, ADA accessibility, and passenger amenities.

~~ES.12~~ES.15 Areas of Controversy

Section 15123(b)(2) of the CEQA Guidelines require that an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public.

During the public comment period for the Notice of Preparation (NOP), various comment letters were received regarding the project. The comments submitted on the NOP during the public review and comment period are included in Appendix A of this EIR. In general, areas of potential controversy known to Metro include cultural resources and construction impacts (traffic, air quality, noise and vibration, and water quality). These issues were considered in the preparation of this EIR, where appropriate, and are addressed in the environmental impact analysis presented in Sections 3.2 through 3.13 (Draft EIR project) and Table 2-2, Section 10.0, and Appendix P (Final EIR project) of this EIR. Areas of known controversy are briefly summarized below.

- *Cultural Resources* – Multiple cultural resources are located within the project study area. These resources include, but are not limited to, LAUS, United States (U.S.) Post Office-Los Angeles Terminal Annex, William Mead Homes, Mission Tower, Macy Street School, Thomas Barabee Warehouse & Store, Friedman Bag Company—Textile Division Building, and five bridges that cross the Los Angeles River. A tribal cultural resource and archeological site, Archaeological Site P-001575, has also been identified within the project study area.
- *Construction Impacts* – Concerns related to construction of the project were identified as they would relate to the following issue areas:
    - *Traffic* – Roadways and intersections may be subject to temporary detours and lane blockages. There is the potential for impacts on the state highway system, including US-101.

- *Noise* – Noise may exceed applicable noise standards and would impact sensitive receptors.
- *Air Quality* – Construction of the project may have potential air quality and health risk impacts on nearby sensitive receptors.
- *Water Quality* – Construction of the project may result in storm water runoff and result in potential impacts on impaired water bodies.
- *Hazardous Materials* – There is the potential to encounter contaminated soils or other media contaminated with hazardous materials during construction.

~~ES.13~~ES.16 Issues to be Resolved by the Decision-Making Body

Section 15123(b)(3) of the CEQA Guidelines requires a discussion of issues to be resolved, including a choice of alternatives and whether or how to mitigate significant impacts. The Metro Board will decide if the significant impacts associated with land use and planning, transportation and traffic, aesthetics, air quality, noise, biological resources, hydrology and water quality, geology and soils, hazards and hazardous materials, utilities/service systems and energy conservation, cultural resources, and public services have been fully mitigated to below a level of significance. Additionally, the Board will determine whether overriding considerations should be adopted for significant and unavoidable impacts associated with ~~transportation and traffic,~~ air quality, noise, and cultural resources. The Board will also decide whether any of the project alternatives substantially reduces significant impacts while still meeting the key project objectives and whether one of the alternatives could be approved.

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Section 3.2, Land Use and Planning			
Threshold 3.2-A: Physically Divide an Established Community. The proposed project would not physically divide an established community.	*Construction* No Impact *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* No Impact *Operations* Less than Significant *Indirect* No Impact
Threshold 3.2-B: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *Operations* Potential conflicts with plans that promote neighborhood sustainability, connectivity, and non-motorized connections from LAUS to the Los Angeles River.	*Construction* Less than Significant *Operations* Significant *Indirect* No Impact	*Operations* **LU-1** ~~**Implement Transportation Demand Management Measures to**~~ **Enhance Neighborhood Connectivity:** ~~Metro shall implement a transportation demand management program 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, Metro's LA River Path Project, and Metro's Los Angeles Union Station Forecourt and Esplanade Improvements Project,~~while also minimizing the demand for trips by single-occupant vehicles in the project study area.~~ 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 ROW 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. ~~provide future connections from LAUS to the Los Angeles River that could include, but not limited to, one or more of the following infrastructure improvements in the project study area:~~ ~~Dedicated bicycle/pedestrian bridge over US-101 from LAUS to the Los Angeles River~~ ~~New bicycle lanes along Commercial Street between Garey Street and Alameda Street~~ ~~Active transportation infrastructure shall be coordinated with the City of Los Angeles and designed and constructed to maximize non-motorized connectivity in the project study area.~~	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Section 3.3, Transportation and Traffic			
Threshold 3.3-A: Impact Local Traffic Plans, Policies, or Ordinances. *Construction* In the 2031 plus project construction condition, significant delays would occur at the following ~~three~~ two intersections per LADOT guidelines: • ~~Intersection #2: Garey Street and Commercial Street~~ • ~~Intersection #10: Alameda Street and Los Angeles Street WB~~ • Intersection #15: Vignes Street and Main Street • Intersection #27: Mission Road and Cesar Chavez Avenue	*Construction* Significant *Operations* Significant *Indirect* No Impact	*Construction* **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	*Construction* Less than Significant *Operations* ~~Significant and Unavoidable~~Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Operations In the 2031 and 2040 with project condition, significant impacts would occur at ~~two~~ one intersection~~s~~ due to project-related increase in traffic delays that would exceed LADOT guidelines: • ~~Intersection #2: Garey Street and Commercial Street~~ • Intersection #4: Center Street and Commercial Street		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: • 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. • 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 *Operations* **TR-2** **Install Traffic Signal:** Metro shall install a new traffic signal at the intersection of Center Street and Commercial Street. **LU-1** **~~Implement Transportation Demand Management Measures to~~ Enhance Neighborhood Connectivity**	
Threshold 3.3-D: Create or Increase Hazards from Project Design Features. *Construction* Construction activities would result in temporary construction-related roadway hazards in the traffic study area. Existing roadways and intersections may be subject to temporary detours and lane blockages at multiple locations throughout the traffic study area. The US-101 main line and on- and off-ramps at Commercial Street would be also be subject to temporary lane width reductions. Additionally, short-radius curves and/or short sight distances may occur during construction.	*Construction* Significant *Operations* Less than Significant *Indirect* No Impact	*Construction* **TR-1** **Prepare a Construction TMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Threshold 3.3-E: Result in inadequate emergency access. *Construction* The proposed project would interfere with emergency response times and access. Significant delays anticipated at ~~three~~ two intersections during construction would affect traffic along ~~Commercial, Alameda, and~~ Vignes Street and Cesar Chavez Avenue~~Streets~~. Construction activities in the vicinity of these affected intersections, especially US-101 and Cesar Chavez Avenue~~Alameda Street~~, could interfere with emergency response and access.	*Construction* Significant *Operations* Less than Significant *Indirect* No Impact	*Construction* **TR-1 Prepare a Construction TMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.3-F: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. *Construction* The proposed project could cause decreased performance for rail operators at LAUS, modifications to LADOT's Dash Route D bus schedule, and hazardous conditions along existing pedestrian/bicycle routes. *Operations* The proposed project would conflict with the City's Mobility Plan 2035 Policy 2.12.	*Construction* Significant *Operations* Significant *Indirect* No Impact	*Construction* **TR-1 Prepare a Construction TMP** **TR-3 Prepare Rail Operations ~~Agreements and~~ Temporary Construction ~~Service~~ Staging Plan:** During final engineering design and prior to construction, Metro shall ~~establish rail operating agreements and/or~~prepare a ~~memorandums~~ MOU with each current rail operator, including but not limited to ~~Metrolink~~ SCRRA, LOSSAN, and Amtrak, to outline mutually agreed upon on-time performance goals ~~objectives~~ to be achieved throughout construction, and how construction sequencing and railroad operational protocols will be incorporated into applicable construction documents (plans and specifications)~~, and implemented to maintain the mutually agreed upon on-time performance during construction.~~ Prior to construction, Metro and the construction contractor shall prepare detailed ~~construction phasing~~ temporary construction staging plans for each phase of construction that ~~identify appropriate means and methods~~ the contractor would implement to maintain mutually agreed upon on-time performance goals~~objectives~~ 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~~ to establish temporary construction detours for passengers that correspond to detailed construction phasing plans to minimize impacts on passenger transfer times~~. Detailed ~~construction phasing plans~~ 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, ~~Metrolink~~ SCRRA shall participate in weekly construction coordination meetings to ensure that ~~evaluate the efficiency of the measures in place to achieve~~ the mutually agreed upon on-time performance is met.~~, and shall coordinate with Metro and construction contractor to implement changes to means and methods during construction to ensure the performance objectives are maintained at an acceptable level throughout construction of the project.~~ *Operations* **LU-1 ~~Implement Transportation Demand Management Measures to~~ Enhance Neighborhood Connectivity**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Section 3.4, Aesthetics			
Threshold 3.4-C: Substantially degrade the existing visual character or quality of the site or its surroundings. *Operations* The proposed project would present new linear infrastructure elements that would be a dominant feature substantially larger than any of the current surroundings within the William Mead Homes residential community.	*Construction* Less than Significant *Operations* Significant *Indirect* No Impact	*Operations* **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.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.4-D: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. *Construction* Residences of Mozaic Apartments and William Mead Homes would be exposed to higher levels of lighting during the nighttime hours for a temporary duration throughout project construction. *Operations* On each of the seven elevated platforms, new lighting would be incorporated into the design for safety purposes, which may result in added light for some of the units in the Mozaic Apartments, if not properly designed and installed. The new platform canopies also have the potential to result in additional daytime glare.	*Construction* Significant *Operations* Significant *Indirect* No Impact	*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. *Operations* **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 ~~utilized as part of the above-grade passenger concourse and the~~incorporated into the design of the new canopies ~~design~~ to reduce daytime glare impacts. **NV-1** **Construct Sound Wall**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Section 3.5, Air Quality and Global Climate Change			
Threshold 3.5-A: Conflict with or obstruct implementation of the applicable air quality plan. The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	*Construction* No Impact *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* No Impact *Operations* Less than Significant *Indirect* No Impact
Threshold 3.5-B: Violate any air quality standard or contribute substantially to an existing or projected air quality violation. **Threshold 3.5-C: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for O_3 precursors).**	*Construction* Significant *Operations* Significant *Indirect* Beneficial Impact	*Construction* **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: • Minimize land disturbed by clearing, grading, and earth moving, or excavation operations to prevent excessive amounts of dust	*Construction* Significant and Unavoidable *Operations* Less than Significant *Indirect* Beneficial Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Construction Construction emissions associated with the proposed project would exceed the SCAQMD's daily criteria pollutant and localized significance thresholds. *Operations* During operations, the net increase in daily emissions would exceed the SCAQMD thresholds for NO_x.		• Provide 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 done • Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes • Securely cover trucks when hauling materials on or off site • Stabilize the surface of dirt piles if not removed immediately • Limit vehicular paths and limit speeds to 15 miles per hour on unpaved surfaces and stabilize any temporary roads • Minimize unnecessary vehicular and machinery activities • Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway • Revegetate or stabilize disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities The following measures shall also be implemented to reduce construction emissions: • 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 Policy • Ensure that all construction equipment is properly tuned and maintained • Minimize idling time to 5 minutes, whenever feasible, which saves fuel and reduces emissions • Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators, whenever feasible • Arrange 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 • These control techniques shall be included in project specifications and shall be implemented by the construction contractor. **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.	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		In addition to the use of Tier 4 equipment, all off-road construction equipment shall be fueled using 100 percent renewable diesel. *Operations* **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. ***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. 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. 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 2040 and shall include results of the emissions inventory and effectiveness of the measures implemented. ***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:	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		• Electric multiple unit systems • Diesel multiple units • Battery-hybrid multiple units • Renewable diesel and other alternative fuels 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.	
Threshold 3.5-D: Expose sensitive receptors to substantial pollutant concentrations. *Construction* The peak cancer risks during construction exceed the SCAQMD's threshold of 10 in 1 million. *Operations* During operations, when compared with conditions without the project, the project-related increase in cancer risk would exceed SCAQMD's threshold of 10 in 1 million.	*Construction* Significant *Operations* Significant *Indirect* Beneficial Impact	*Construction* **AQ-1 Fugitive Dust Control** **AQ-2 Compliance with U.S. EPA's Tier 4 Exhaust Emission Standards and Renewable Diesel Fuel for Off-Road Equipment** *Operations* **AQ-3 Adaptive Air Quality Mitigation Plan**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Beneficial Impact
Threshold 3.5-E: Create objectionable odors affecting a substantial number of people. The proposed project would not create objectionable odors affecting a substantial number of people.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.5-F: Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment. The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment. Although not required to mitigate a significant impact, proposed air quality mitigation would further reduce greenhouse gas emissions.	*Construction and Operations* Beneficial Impact *Indirect* No Impact	**AQ-2 Compliance with U.S. EPA's Tier 4 Exhaust Emission Standards** **AQ-3 Adaptive Air Quality Mitigation Plan**	*Construction and Operations* Beneficial Impact *Indirect* No Impact
Threshold 3.5-G: Conflict with applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	*Construction and Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction and Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Section 3.6, Noise and Vibration			
Threshold 3.6-A: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. **Threshold 3.6-C: Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.** *Operations* In the 2031 and 2040 conditions, the proposed project would result in severe noise impacts on William Mead Homes.	*Operations* Significant *Indirect* Less than Significant	*Operations* **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 ~~an approximate sound transmission class rating of 50 and~~ 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.	*Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.6-B: Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels. *Construction* Because construction would occur within 300 feet of an impact pile driver and 140 feet of the vibratory roller from sensitive land uses, a severe impact would occur related to William Mead Homes and Mozaic Apartments from an annoyance perspective.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*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: • Design considerations and project layout: o Construct temporary noise walls, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers o Reroute truck traffic away from residential streets, if possible, and select streets with fewest residences if no alternatives are available o Site equipment on the construction site as far away from noise-sensitive sites as possible o 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: o Restrict pile driving to daytime periods o Combine noisy operations to occur in the same time period ▪ The total noise level produced would not be significantly greater than the level produced if the operations were performed separately o Avoid nighttime activities to the maximum extent feasible ▪ Sensitivity to noise increases during the nighttime hours in residential neighborhoods • Alternative construction methods: o Avoid use of an impact pile driver in noise and/or vibration-sensitive areas, where possible ▪ Drilled piles or the use of a sonic or vibratory pile driver are quieter alternatives where the geological conditions permit their use	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		o Use specially-quieted equipment, such as quieted and enclosed air compressors and properly-working mufflers on all engines o 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) 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). **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.	
Threshold 3.6-D: A substantial temporary or periodic increase in ambient noise levels existing without the project. *Construction* Construction-related noise would exceed FTA's construction noise guidelines at sensitive receptors nearest to the project, including the William Mead Homes and Mozaic Apartments. *Operations* In the 2031 and 2040 conditions, the proposed project would result in severe noise impacts on William Mead Homes.	*Construction* Significant *Operations* Significant *Indirect* Less than Significant	*Construction* **NV-2** **Employ Noise- and Vibration Reducing Measures during Construction** **NV-3** **Prepare a Community Notification Plan for Project Construction** *Operations* **NV-1** **Construct Sound Wall**	*Construction* Significant and Unavoidable *Operations* Less than Significant *Indirect* Less than Significant
Section 3.7, Biological Resources			
Threshold 3.7-A: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. *Construction and Indirect* Potential Impacts on:	*Construction* Significant *Operations* Less than Significant *Indirect* Significant	*Construction* **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	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
• Two California Species of Special Concern (western mastiff bat and western yellow bat) o Potential impacts on western mastiff bats as a result of construction activities in the vicinity of bridges o Potential impacts on western yellow bats as a result of removal of naturally occurring or planted (ornamental) trees, including palm trees • Maternity bat roost sites • Nesting birds protected under federal Migratory Bird Treaty Act		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: • 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	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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 that 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 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.	
Threshold 3.7-D: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.7-E: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *Construction and Indirect* The proposed project may require the removal or disturbance of one or more native tree species that are considered a Protected Tree under the City of Los Angeles Tree Ordinance.	*Construction* Significant *Operations* Less than Significant *Indirect* Significant	*Construction and Indirect* **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,	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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.	
Section 3.8, Hydrology and Water Quality			
Threshold 3.8-A: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.8-B: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on or off site. *Construction* The proposed project would require substantial amounts of grading and excavation to reconfigure existing drainage patterns and ensure that connections to existing drainage infrastructure are maintained and/or improved. Any increases in sediment load from the construction area could lead to alterations in drainage patterns due to accumulations of sediment in downstream areas, if not properly managed. *Operations* The proposed project would result in alterations to the existing drainage patterns in the project study area that could result in localized flooding if not properly managed.	*Construction* Significant *Operations* Significant *Indirect* No Impact	*Construction* **HWQ-1** **Prepare and Implement a SWPPP:** During construction, ~~Caltrans,~~ Metro~~, and CHSRA~~ 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. ~~Caltrans,~~ Metro~~, and CHSRA~~ 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. *Operations* **HWQ-2** **Final Water Quality BMP Selection ~~and Maintenance Agreement~~ (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). **HWQ-3** **Final Water Quality BMP Selection ~~and Maintenance Agreement (CHSRA~~ Railroad ROW):** For the portion of the project outside Caltrans ROW ~~that accommodates the planned HSR system~~, 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)~~. This post-construction requirement only applies to CHSRA facilities~~. **HWQ-4** **Final Water Quality BMP Selection ~~and Maintenance Agreement (Non-Caltrans/Non CHSRA~~City of Los Angeles):** Metro shall comply with the NPDES Waste Discharge	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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 ~~CHSRA's~~the Phase II Permit. Metro shall prepare a final LID report in accordance with the City of Los Angeles *Planning and Land Development Handbook for Low Impact Development* (LID Manual), May 9, 2016. This document shall identify the required BMPs to be in place prior to project operation and maintenance. ~~**HWQ-5 Long-Term MOU:** An MOU shall be executed prior to completion of the final engineering design and before approval of the corresponding plans, specifications, and estimate phase of the project. The MOU shall clarify and addresses overlapping, multiagency MS4-related technical, financial, legal, and other responsibilities for the design, construction, and operational phases of the project. Agencies involved in the MOU shall include, but not be limited to, Caltrans, CHSRA, and Metro. The MOU shall address, but not be limited to, the stormwater runoff quality to be conveyed and accepted among the affected parties.~~	
Threshold 3.8-C: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. *Construction* If not properly managed, sediments, petroleum products, and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters. *Operations* An overall increase in storm runoff is anticipated to result from increased impervious surface area, which would increase the volume of flow and exceed the capacity of some on-site drainage systems.	*Construction* Significant *Operations* Significant *Indirect* No Impact	*Construction* **HWQ-1 Prepare and Implement a SWPPP** *Operations* **HWQ-2 Final Water Quality BMP Selection ~~and Maintenance Agreement~~ (Caltrans ROW)** **HWQ-3 Final Water Quality BMP Selection ~~and Maintenance Agreement (CHSRA~~ Railroad ROW)** **HWQ-4 Final Water Quality BMP Selection ~~and Maintenance Agreement (Non-Caltrans/Non CHSRA~~City of Los Angeles)** ~~**HWQ-5 Long-Term MOU**~~	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.8-D: Expose people or structures to a risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. The proposed project would not expose people or structures to a risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.8-E: Violate any water quality standards or waste discharge requirements. **Threshold 3.8-G: Otherwise substantially degrade water quality.** *Construction*	*Construction* Significant *Operations* Significant *Indirect* Significant	*Construction* **HWQ-1 Prepare and Implement a SWPPP** **HWQ-5~~6~~ 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	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Construction activities could result in a significant impact on water quality and exceed water discharge requirements if runoff is not properly managed. *Operation* Minor amounts of oil and grease would originate from train cars during operation, which could discharge oil, grease, and other chemical pollutants into existing drainage systems. *Indirect* The proposed project could result in on- and off-site discharges that could indirectly impact downstream surface waters by increasing scour and/or sedimentation.		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. **HWQ-6~~7~~ 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. *Operations* **HWQ-2 Final Water Quality BMP Selection ~~and Maintenance Agreement~~ (Caltrans ROW)** **HWQ-3 Final Water Quality BMP Selection ~~and Maintenance Agreement (CHSRA~~ Railroad ROW)** **HWQ-4 Final Water Quality BMP Selection ~~and Maintenance Agreement (Non-Caltrans/Non CHSRA~~City of Los Angeles)** ~~**HWQ-5 Long-Term MOU**~~ *Indirect* **HWQ-2 Final Water Quality BMP Selection ~~and Maintenance Agreement~~ (Caltrans ROW)** **HWQ-3 Final Water Quality BMP Selection ~~and Maintenance Agreement (CHSRA~~ Railroad ROW ROW)** **HWQ-4 Final Water Quality BMP Selection ~~and Maintenance Agreement (Non-Caltrans/Non CHSRA~~City of Los Angeles)** ~~**HWQ-5 Long-Term MOU**~~ **HWQ-7~~8~~ 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.	
Threshold 3.8-F: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site. *Construction* During construction, it may be necessary for the contractor to reroute drainage around one or more construction areas, which, in turn, may concentrate runoff and/or direct it off site, thereby	*Construction* Significant *Operations* Significant *Indirect* No Impact	*Construction* **HWQ-1 Prepare and Implement a SWPPP** *Operations* **HWQ-2 Final Water Quality BMP Selection ~~and Maintenance Agreement~~ (Caltrans ROW)** **HWQ-3 Final Water Quality BMP Selection ~~and Maintenance Agreement (CHSRA~~ Railroad ROW)** **HWQ-4 Final Water Quality BMP Selection ~~and Maintenance Agreement (Non-Caltrans/Non CHSRA~~City of Los Angeles)**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
resulting in substantial erosion on adjacent properties, if not properly managed. *Operations* The proposed project would result in an increase of impervious surfaces in the project study area ~~by 3.5 acres~~ (non-Caltrans ROW). This could cause a decrease in infiltration and increase the volume and velocity of runoff during a storm event, which transports pollutants to receiving waters and may lead to downstream erosion and increases in suspended particles and sediment		~~**HWQ-5 Long-Term MOU**~~	
Section 3.9, Geology and Soils			
Threshold 3.9-A: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: **i. Strong seismic ground shaking; and,** **ii. Seismic-related ground failure, including liquefaction.** *Indirect* Liquefaction is expected ~~between depths of about 20 and 30 feet bgs~~ in Segment 1: Throat Segment and Segment 2: Concourse Segment of the project study area.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Significant	*Indirect* **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: • Site preparation • Soil bearing capacity • Appropriate sources and types of fill • Liquefaction • Lateral spreading • Corrosive soils • Structural foundations • Grading practices The recommendations shall 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 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.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Threshold 3.9-B: Result in substantial soil erosion or the loss of topsoil. The proposed project would not result in substantial soil erosion or the loss of topsoil.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.9-C: Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. *Construction* Due to the presence of compressible layers within the upper 30 feet in Segment 2: Concourse Segment of the project study area, settlement is anticipated to occur for those improvements proposed to be founded on shallow foundations. In addition, liquefaction is expected due to the soil conditions and groundwater level.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **GEO-1 Prepare Final Geotechnical Report**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.9-D: Be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risk to life or property. The proposed project would not be located on expansive soil that would create substantial risk to life or property.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Section 3.10, Hazards and Hazardous Materials			
Threshold 3.10-A: Create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. *Construction* Project construction could result in accidental release hazardous materials and wastes during routine transport. There is also a potential to encounter contaminated soil and/or groundwater during excavation.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **HAZ-1 Prepare a Construction HMMP:** 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: • 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	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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)	
Threshold 3.10-B: Create a hazard to the public or the environment through reasonably foreseeable upset or accidental conditions involving the release of hazardous materials into the environment. *Construction* The proposed project has the potential to create a hazard to the public or the environment through reasonably foreseeable upset or accidental conditions involving the release of hazardous materials into the environment: • The project study area contains 35 Recognized Environmental Condition sites and 7 sites with land use restrictions • Potential to encounter contaminated soil and/or groundwater during excavation • Demolition of structures could result in the accidental release of asbestos containing materials or lead	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **HAZ-1 Prepare a Construction HMMP** **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: • Collection of soil, groundwater, and soil vapor samples from borings, for geologic analysis and collection/submittal of samples to an environmental laboratory for implementation of an analytical program. Sampling shall be based on the findings of the Phase I ESA for the project area. • 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: • General worker health and safety procedures • Dust control • Management of soil stockpiles • Traffic control • Stormwater erosion control using BMPs **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	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		varies widely across the project footprint, and the parcel-specific Soil Management Plan shall provide parcel-specific requirements addressing the following: • 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 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: • 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 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. 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. 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. 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. 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,	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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.	
Threshold 3.10-C: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. *Indirect* The proposed project would involve the transport and disposal of soil or other media contaminated with hazardous materials, and accidental release of these hazardous materials to nearby schools.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Significant	*Indirect* **HAZ-1 Prepare a Construction HMMP** **HAZ-2 Prepare Project-wide Phase II ESA (based on completed Phase I ESA)** **HAZ-3 Prepare a General Construction Soil Management Plan** **HAZ-4 Prepare Parcel-Specific Soil Management Plans and Health and Safety Plans** **HAZ-5 Land Use Covenant Sites and Coordination with the Department of DTSC** **HAZ-6 Halt Construction Work if Potentially Hazardous Materials/Abandoned Oil Wells are Encountered** **HAZ-7 Compliance with the City of Los Angeles Methane Regulations** **HAZ-8 Pre-Demolition Investigation**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.10-D: Be located on a site which is included on a list of hazardous materials sites complies pursuant to Government Code Section 65962.5 and as a result, would create an adverse hazard to the public or the environment. *Construction* The close proximity of existing RECs to project-related construction activities would carry the potential for encountering contaminated soil and/or groundwater. The REC sites adjacent to or in the vicinity of the project could be indirectly affected during construction. *Indirect* Based on the uncertainties regarding the level of clean up or remediation on the land use restricted sites, there is potential to encounter undocumented sources of contamination.	*Construction* Significant *Operations* Less than Significant *Indirect* Significant	*Construction* **HAZ-2 Prepare Project-wide Phase II ESA (based on completed Phase I ESA)** **HAZ-3 Prepare a General Construction Soil Management Plan** **HAZ-4 Prepare Parcel-Specific Soil Management Plans and Health and Safety Plans** **HAZ-5 Land Use Covenant Sites and Coordination with the DTSC** **HAZ-6 Halt Construction Work if Potentially Hazardous Materials/Abandoned Oil Wells are Encountered** *Indirect* **HAZ-6 Halt Construction Work if Potentially Hazardous Materials/Abandoned Oil Wells are Encountered**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.10-~~E~~C: Impair implementation of an adopted emergency response plan or emergency evacuation plan. *Construction* Construction activities could interfere with emergency response and access.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **TR-1 Prepare a Construction TMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Section 3.11, Utilities/Service Systems and Energy Conservation			
Threshold 3.11-A: Exceed wastewater treatment requirements of the applicable RWCQB. The proposed project would not exceed wastewater treatment requirements of the applicable RWQCB.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.11-B: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *Construction* Construction of the project, including utility replacements and/or relocations, would have the potential to encounter documented and undocumented cultural resources.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **HIST-5 Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.11-C: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *Construction* Construction of the project, including storm drain replacements and/or relocations, would have the potential to encounter documented and undocumented cultural resources	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **HIST-5 Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.11-D: Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed. The proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.11-E: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. The proposed project would not exceed the City's existing wastewater treatment requirements.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Threshold 3.11-F: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.11-G: Comply with Federal, state, and local statutes and regulations related to solid waste. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Threshold 3.11-H: Require or result in the construction of new gas or electric facilities or expansion of existing facilities. The proposed project would not require or result in the construction of new gas or electric facilities or expansion of existing facilities.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.11-I: Have insufficient gas or electricity supplies available to serve the project. The proposed project would have sufficient gas or electricity supplies available to serve the project.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* No Impact
Threshold 3.11-J: Generate unnecessary consumption of energy resources or conflict with initiatives for renewable energy or energy efficiency. The proposed project would not generate unnecessary consumption of energy resources or conflict with initiatives for renewable energy or energy efficiency.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant	No mitigation is required.	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant
Section 3.12, Cultural Resources			
Threshold 3.12-A: Cause a substantial adverse change in the significance of a historical resource as defined in §150464.5. *Construction* The proposed project may cause a substantial adverse change in the significance of the following six historical resources:	*Construction* Significant *Operations* No Impact	*Construction* **HIST-1a** **LAUS City of Los Angeles CHC Review and Consultation:** Metro shall comply with the applicable Cultural Heritage Ordinance sections for LAUS as an HCM 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,	*Construction* Significant and Unavoidable *Operations* No Impact

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
• LAUS • Vignes Street Undercrossing • William Mead Homes • Friedman Bag Company—Textile Division Building • North Main Street Bridge (Bridge #53C 1010) • Archaeological Site CA-LAN-1575/H *Indirect* The proposed project would result in an indirect visual impact associated with the ~~elevated portion of the above-grade passenger concourse~~new modified expanded passageway and grand canopy if implemented. The new modified expanded passageway is of non-historic dimensions, design, and materials, and would have new vertical and expanded horizontal circulation elements.	Indirect Significant	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. **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 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. At a minimum, but not limited to, the following character-defining features shall be included in this documentation: • 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) **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	Indirect Significant and Unavoidable

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		in consultation with and with approval from the City of Los Angeles CHC and OHR prior to finalizing design.	
		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 ~~would~~ 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 design and implement the educational display in consultation with the City of Los Angeles CHC and OHR prior to finalizing design.	
		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.	
		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.	
		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.	
		HIST-5 **Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP**: 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 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	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		the California Office of Historic Preservation's *Archaeological Resources Management Reports: Recommended Contents and Format*. 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. Caltrans shall have the opportunity to review and comment on the Draft CRMMP. The CRMMP shall include, at a minimum, the following: • ***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 ~~with~~ 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 ~~CRMMMP~~ shall identify monitoring locations and protocols based on the final design and potential impacts. Metro shall retain archaeological monitors who will be supervised by a qualified archaeologist ~~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~~. 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 regards to the safety of monitoring locations and the potential for contaminated soils or other hazards. • ***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 an Occupational Safety and Health Administration-qualified determinations in regards to the safety of monitoring locations and the potential for contaminated soils or other hazards. • ***Worker Environmental Awareness Program (WEAP) Training:*** A qualified archaeologist shall be retained to prepare a cultural resource-focused WEAP training that shall be	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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. o *Evaluation and Data Recovery Reports:* 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*. o *Archaeological Monitoring Report:* 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. • ***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 (Archaeological 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. *Indirect* **HIST-1a** **LAUS City of Los Angeles CHC Review and Consultation**	

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		HIST-1b **LAUS HABS-Like Documentation: Historic Resource Recordation** **HIST-1c** **LAUS Restoration of the Existing Passenger Concourse (west of pedestrian passageway)** **HIST-1d** **LAUS Educational Exhibit** **HIST-2** **William Mead Homes Consultation** **HIST-5** **Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP** **AES-1** **Aesthetic Treatments**	
Threshold 3.12-B: Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. *Construction* The proposed project would result in ground-disturbing construction activities in areas known to contain Archaeological Site CA-LAN-1575/H and in areas that may contain previously undiscovered prehistoric and historical archaeological features or sites. *Indirect* Increased accessibility to archaeological resources (such as artifacts) by construction personnel that could lead to resource looting or vandalism activities.	*Construction* Significant *Operations* No Impact *Indirect* Significant	*Construction* **HIST-5** **Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP** **HIST-6** **Development of a Public Participation or Outreach Plan for P-19-001575 (Archaeological Site CA-LAN-1575/H)** *Indirect* **HIST-5** **Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP**	*Construction* Less than Significant *Operations* No Impact Indirect Less than Significant
Threshold 3.12-C: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. *Construction* Excavations for foundations and support piers to support ~~the above-grade concourse and other~~ proposed bridge structures are anticipated to extend up to 100 feet below the surface and have the potential to impact paleontologically sensitive deposits of older Quaternary alluvium and underlying Puente Formation. *Indirect* Increased accessibility by construction personnel to fossils through construction activities could lead to resource looting or vandalism activities.	*Construction* Significant *Operations* No Impact *Indirect* Significant	*Construction and Indirect* **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. Construction activities may continue on other areas of the project site while evaluation and treatment of the	*Construction* Less than Significant *Operations* No Impact *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		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. **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.	
Threshold 3.12-D: Disturb any human remains, including those interred outside of formal cemeteries. *Construction* Ground-disturbing construction activities associated with the proposed project would occur in areas with the potential to contain human remains.	*Construction* Significant *Operations* No Impact *Indirect* No Impact	*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.	*Construction* Less than Significant *Operations* No Impact *Indirect* No Impact
Threshold 3.12-E: Cause a substantial adverse change in the significance of a tribal cultural resources as defined in §21074. *Construction* Ground-disturbing construction activities for any phases of the proposed project include components that would have excavations in areas with the potential to contain Tribal Cultural Resource CA-LAN-1575/H as it relates to the descendants of groups that inhabited the area in the Native American period.	*Construction* Significant *Operations* No Impact *Indirect* Significant	*Construction* **HIST-5** **Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP** **HIST-6** **Development of a Public Participation or Outreach Plan for P-19-001575 (Archaeological Site CA-LAN-1575/H)** **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	*Construction* Less than Significant *Operations* No Impact *Indirect* Less than Significant

Table ES-2. Summary of Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Indirect Increased accessibility by construction personnel to the tribal cultural resource (such as artifacts or sacred items) could lead to resource looting or vandalism activities.		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. *Indirect* **HIST-5 Archaeological Site CA-LAN-1575/H: Preparation of a CRMMP**	
Section 3.13, Public Services			
Threshold 3.13-A: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: **i. Fire Protection** **ii. Police Protection** *Construction* Increased traffic congestion caused by construction vehicles and access disruptions, such as road closures or road construction, could affect emergency response times.	*Construction* Significant *Operations* Less than Significant *Indirect* Less than Significant	*Construction* **TR-1 Prepare a Construction TMP**	*Construction* Less than Significant *Operations* Less than Significant *Indirect* Less than Significant

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; CDFW=California Department of Fish and Wildlife; CEQA=California Environmental Quality Act; CFR=Code of Federal Regulations; CGP=construction general permit; CHC=Cultural Heritage Commission; CHSRA=California High-Speed Rail Authority; CIH=Certified Industrial Hygienist; CRMMP=Cultural Resource Mitigation and ~~Monitoring~~ Management Plan; DTSC=Department of Toxic Substance Control; EIR=environmental impact report; ESA=environmental site assessment; HABS=Historic American Buildings Survey; HACLA=Housing Authority of the City of Los Angeles; HCM=Historic Cultural Monument; HMMP=Hazardous materials management plan; 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; LOSSAN=Los Angeles-San Diego-San Luis Obispo; LUC=Land Use Covenant; MBTA=Migratory Bird Treaty Act; MOU=memorandum of understanding; NAHC=Native American Heritage Commission; NO_x=nitrogen oxides; 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; ROW=right-of-way; RWQCB=Regional Water Quality Control Board; SCAQMD=South Coast Air Quality Management District; SCORE=Southern California Optimized Rail Expansion; SCRRA=Southern California Regional Rail Authority; SWPPP=stormwater pollution prevention plan; TMP=traffic management plan; TPH=total petroleum hydrocarbons; UBC=Uniform Building Code; USFWS=United States Fish and Wildlife Service; WB=westbound; WEAP=worker environmental awareness program