California High-Speed Rail Authority

Los Angeles to Anaheim Project Section

Aesthetics and Visual Quality Technical Report

October 2025



CALIFORNIA High-Speed Rail Authority

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 22, 2024, and executed by the Federal Railroad Administration and the State of California.

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Appendices

Appendix A: Summary of Visual Quality and Viewer Sensitivity Ratings by Key Viewpoint

ACRONYMS AND ABBREVIATIONS

Term	Definition
Amtrak	National Railroad Passenger Corporation
ARTIC	Anaheim Regional Transportation Intermodal Center
Authority	California High-Speed Rail Authority
BNSF	BNSF Railway
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
FHWA Guidelines	*Guidelines for the Visual Impact Assessment of Highway Projects*
FRA	Federal Railroad Administration
HCM	Historic-Cultural Monument
HSR	High-Speed Rail
I-	Interstate
IAMF	impact avoidance and minimization feature
KVP	key viewpoint
LAUS	Los Angeles Union Station
LMF	Light Maintenance Facility
LOSSAN Corridor	Los Angeles – San Diego – San Luis Obispo Rail Corridor
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
OCS	overhead contact system
project section	Los Angeles to Anaheim Project Section
RSA	resource study area
TPSS	traction power substation
U.S.C.	U.S. Code
UPRR	Union Pacific Railroad

EXECUTIVE SUMMARY

This report documents aesthetics and visual quality analysis of the Los Angeles to Anaheim Project Section of the California High-Speed Rail (HSR) System. This section would extend approximately 30 miles, and travel through the cities of Los Angeles, Vernon, Bell, Commerce, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, and Anaheim. The project's alignment would share the existing Los Angeles – San Diego – San Luis Obispo Rail Corridor with existing rail operations, including National Railroad Passenger Corporation (Amtrak) passenger trains, Metrolink commuter trains, and BNSF Railway (BNSF) freight trains. In addition to new tracks for HSR, this project section would include an HSR station in Anaheim, as well as a maintenance of infrastructure siding, a light maintenance facility (LMF) with alternatives at 26th Street or 15th Street, and electric power utility improvements. Station options for one additional HSR station in Norwalk/Santa Fe Springs or Fullerton are included in the proposed Los Angeles to Anaheim Project Section.

Shared Passenger Track Alternatives A and B for the Los Angeles to Anaheim Project Section include an alternative with the LMF at 26th Street (Shared Passenger Track Alternative A) and an alternative with the LMF at Eighth Street (Shared Passenger Track Alternative B). A description of the alternatives and their locations can be found in Chapter 2, Alternatives, of the Draft Environmental Impact Report/Environmental Impact Statement. This technical report focuses on analysis carried out for the Shared Passenger Track Alternatives exclusively in the project section between Los Angeles and Anaheim.

The Shared Passenger Track Alternatives would result in low to moderate visual changes throughout the resource study area. Built elements associated with construction and operation of the HSR system would alter the viewsheds represented by the 25 key viewpoints selected for this analysis by adding, altering, or removing certain visual elements, as presented and discussed in this technical report. The most substantial visual changes accompany station site placement for one HSR station (Anaheim Regional Transportation Intermodal Center) and station options (Norwalk/Santa Fe Springs or Fullerton), relocated Metrolink station site placement (Commerce and Buena Park) and other project elements, such as maintenance facilities, grade separations (defined as a junction of two or more surface transport axes at different heights [grades] so that they would not disrupt the traffic flow on other transit routes when they cross each other, including roadway crossings and elevated/depressed guideway sections), and communications towers to accommodate the HSR system. Although visual changes may be substantial and may have adverse effects in some areas (depending on the sensitivity, position and angle of the viewer), these changes would not result in a change in the overall visual quality throughout the resource study area.

Under the Shared Passenger Track Alternatives, no changes are proposed that would substantially disrupt scenic vistas, remove or destroy features of the built or natural environments that contribute to visual quality, alter designated scenic corridors or views from the state's designated scenic highways, or otherwise substantially compromise valued visual resources within the resource study area. With the implementation of the applicable design guidelines and regulations, such as the impact avoidance and minimization features, project elements will be designed to be in keeping with the character of the existing visual environment and surrounding areas, and adverse effects on aesthetics and visual quality would be minimized. The Shared Passenger Track Alternatives would have a minor adverse cumulative visual effect associated with the construction and presence of project elements such as the elevated guideway and maintenance facilities when factored into the continued growth and development of the areas in the resource study area.

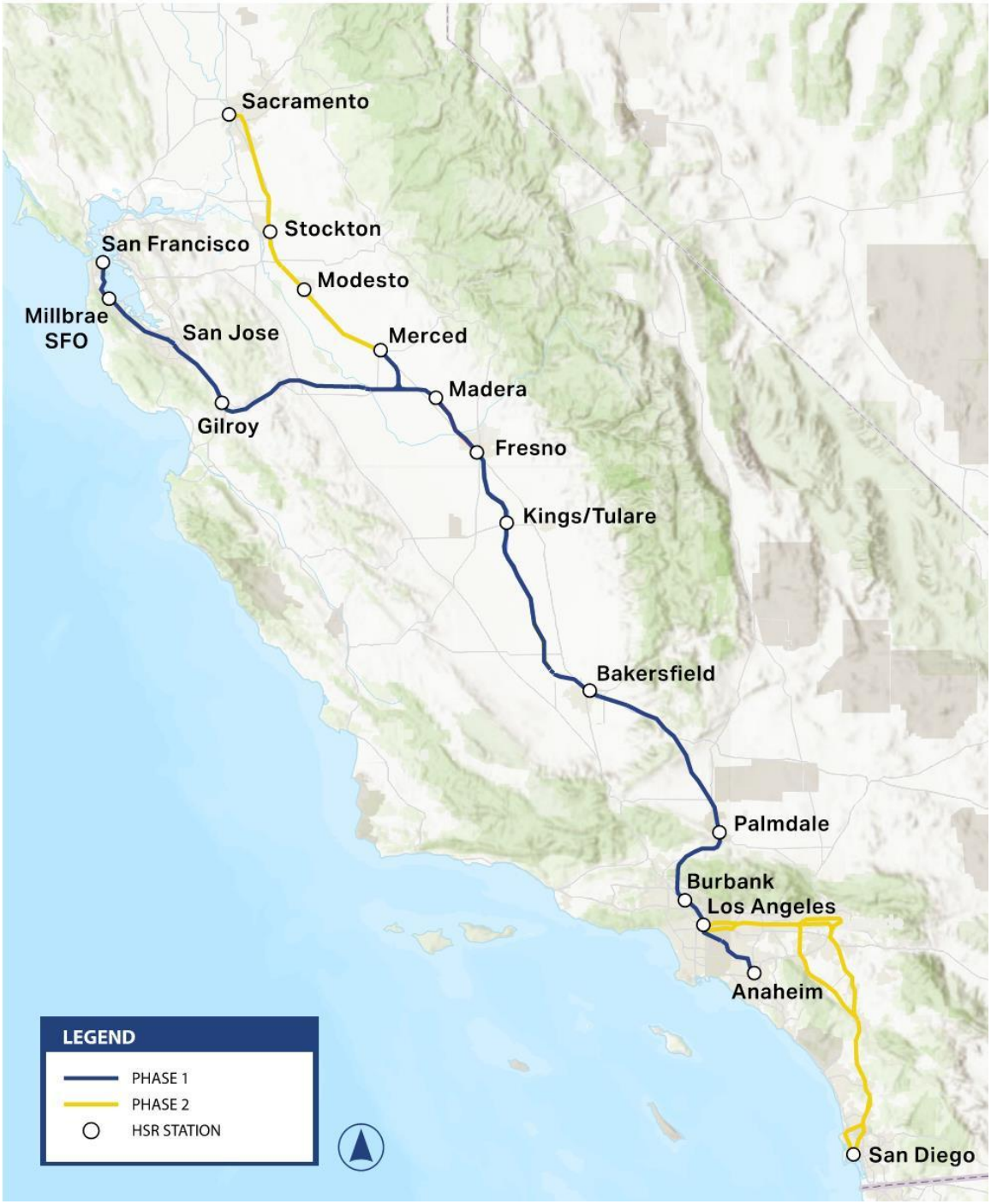
1 INTRODUCTION

1.1 California High-Speed Rail System Background

The California High-Speed Rail Authority (Authority), a state governing board formed in 1996, is responsible for planning, designing, building, and operating the California High-Speed Rail (HSR) System. Its statutory mandate is to develop an HSR system that coordinates with the state's existing transportation network, which includes intercity rail and bus lines, regional commuter rail lines, urban rail and bus transit lines, highways, and airports. The California HSR System will provide intercity, high-speed service on more than 800 miles of tracks throughout California, connecting the major population centers of Sacramento, the San Francisco Bay Area, the southern Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego, as depicted on Figure 1-1.[1] It will use state-of-the-art, electrically powered, high-speed, steel-wheel-on-steel-rail technology, including contemporary safety, signaling, and automated train control systems, with trains capable of operating up to 220 miles per hour.

The California HSR System is planned to be implemented in two phases. Phase 1 would connect San Francisco to Los Angeles and Anaheim via the Pacheco Pass and the Central Valley. Phase 2 would extend the HSR system from the Central Valley (starting at the Merced Station) to the state's capital in Sacramento and from Los Angeles to San Diego.

[1] The alignments depicted on Figure 1-1 reflect the Authority/Federal Railroad Administration decisions made in the 2005, 2008, and 2012 Programmatic Environmental Impact Report/Environmental Impact Statement documents.



Source: Authority 2023a

Figure 1-1 California High-Speed Rail System

1.2 Los Angeles to Anaheim Project Section Background

The Los Angeles to Anaheim Project Section (project section) of the HSR system would extend approximately 30 miles between Los Angeles Union Station (LAUS) in Los Angeles and Anaheim Regional Transportation Intermodal Center (ARTIC) in Anaheim. This narrow, existing railroad corridor is constrained by the surrounding urban environment and other existing rail operators in

the area, including trains operated by the National Railroad Passenger Corporation (Amtrak), Metrolink (governed by the Southern California Regional Rail Authority), the Union Pacific Railroad (UPRR), and BNSF Railway (BNSF).

The Authority, in cooperation with the Federal Railroad Administration (FRA), completed the *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System* in November 2005 (Authority and FRA 2005). For the Los Angeles to Anaheim Project Section, the Authority and FRA selected the existing Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN Corridor), with the intent of sharing the existing right-of-way as the alignment.

In 2007, the Authority and FRA released the Notice of Preparation/Notice of Intent to inform the public of the beginning of the preparation of a Draft EIR/EIS for the project section.[2] The Authority and FRA engaged in project scoping, completed a Preliminary Alternatives Analysis Report in 2009, and completed Supplemental Alternatives Analysis Reports in 2010 and 2016. The 2016 Supplemental Alternatives Analysis considered two alternatives: Alternative 1 (formerly called the Dedicated High-Speed Track Alternative) and Alternative 2 (formerly called the Consolidated Shared-Track Alternative), and advanced Alternative 2 (HSR Project Alternative) for analysis in the project Draft EIR/EIS.

In 2017 and 2018, BNSF conducted operational modeling that indicated a need for additional capacity during construction and operation of this project section. Consequently, the Authority added BNSF staging tracks in Lenwood (Lenwood Component) and a Colton Intermodal Facility (Colton Component) in San Bernardino County to the project. In 2020, the Authority initiated revised scoping to include the Lenwood and Colton Components in the project section. Stakeholder feedback received during scoping included substantial opposition to the BNSF Components far outside the project corridor.

In response, the Authority prepared a Supplemental Alternatives Analysis (Authority 2023b) to evaluate a new alternative that would eliminate the need for a BNSF Intermodal Facility in San Bernardino County. The 2023 Supplemental Alternatives Analysis examined three new build alternatives that did not include an Intermodal Facility and proposed advancing the Shared Passenger Track Alternative for further consideration in the EIR/EIS, which closely resembled the 2018 HSR Project Alternative without the Lenwood and Colton Components. Operationally, the Shared Passenger Track Alternative would reduce the peak service level for HSR trains to two trains per hour per direction, and up to 10 freight trains per day could operate on the passenger tracks, eliminating the need for the BNSF Intermodal Facility.

Additional design refinements and outreach occurred, and in May 2024, a Preliminary Impacts Assessment Report further defined elements of the Shared Passenger Track Alternative, such as HSR station options, light maintenance facility (LMF) sites, and grade crossings. The Preliminary Impacts Assessment Report recommended the Shared Passenger Track Alternative be split into two build alternatives, Shared Passenger Track Alternative A and Shared Passenger Track Alternative B, which are similar in all aspects, except for the LMF size and location. Shared Passenger Track Alternative A proposes an LMF at 26th Street in Vernon, and Shared Passenger Track Alternative B proposes an LMF at 15th Street in Los Angeles. In May 2024, the Board identified Shared Passenger Track Alternative A as the Preferred Alternative.

1.3 Project Description Purpose

This project description provides a condensed version of the technical information discussed in Chapter 2, Alternatives, of the Draft EIR/EIS and includes references to other documents for additional details and discussion. The basis of this project description is the Draft Los Angeles to Anaheim Preliminary Engineering for Project Definition document. Chapter 2 of the Draft EIR/EIS includes additional details beyond the content discussed herein, including information on the proposed operating plans and scenarios, construction plans, and capital and operating costs.

[2] The Notice of Intent was issued in the *Federal Register* on March 15, 2007 (72 Fed. Reg. 12,250).

1.3.1 Report Purpose

Through the public involvement process, interested parties have identified visual impacts as a concern. The presence of new infrastructure such as overhead contact systems, communications towers, high-speed rail vehicles, viaducts, tunnels, and stations are examples of facilities with the potential to create visual impacts. This technical report has been prepared to analyze the aesthetics and visual quality of the project section. This technical report provides support and detailed evaluation of aesthetics and visual quality related to the No Project Alternative and the Shared Passenger Track Alternatives. The primary focus of this report is to describe the affected environment (i.e., existing conditions) and to evaluate the range of possible effects that aesthetics and visual quality may have during construction and operation of the Shared Passenger Track Alternatives.

2 PROJECT DESCRIPTION

The project section is approximately 30 miles long and travels through the cities of Los Angeles, Vernon, Commerce, Bell, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, and Anaheim. The project's alignment would share a portion of the existing LOSSAN Corridor with existing rail operators. The Authority adopted a strategy of sharing the existing corridor and blending HSR with existing rail systems on shared infrastructure (referred to as "blended operations"[3]) to accelerate and broaden benefits, improve efficiency, minimize community impacts, and reduce construction costs.

This section describes the No Project Alternative and Shared Passenger Track Alternatives A and B.

2.1 No Project Alternative

Under the No Project Alternative, the project section would not be built. The No Project Alternative represents the condition of the project section as it currently exists in the base year, and as it would exist without the California HSR System at the planning horizon year of 2040.

In assessing future conditions, it was assumed that all currently known, programmed, and funded improvements to the statewide transportation system (highway, rail, and transit) and reasonably foreseeable local land development projects would be implemented by the year 2040. The No Project Alternative is based on a review of and consultation with several documents and data sources, including, but not limited to, transportation plans such as the 2020 Southern California Association of Governments' Regional Transportation Plan[4]; the Governor's Office of Land Use and Climate Innovation CEQAnet Database; the Federal Aviation Administration's Air Carrier Activity Information System and Airport Improvement Plan grant data; the California State Transportation Commission's State Transportation Improvement Program; airport master plans and interviews with airport officials; intercity passenger rail plans; and city and county general plans and planning officials.

2.2 High-Speed Rail Build Alternatives

The project proposes two build alternatives: Shared Passenger Track Alternative A and Shared Passenger Track Alternative B. Shared Passenger Track Alternative A proposes an LMF at 26th Street, whereas Shared Passenger Track Alternative B proposes an LMF at 15th Street. Both alternatives include an HSR station option in either Norwalk/Santa Fe Springs or Fullerton. The main elements of the build alternatives are summarized in Table 2-1 and depicted on Figure 2-1.

Table 2-1 Summary of Design Features of Shared Passenger Track Alternative A and Shared Passenger Track Alternative B

Feature	Total
Total length (linear miles)	29.7
At-grade profile (linear miles)	23.8
Elevated profile (linear miles)	5
Below-grade/braced trench profile (linear miles)	0.9
Number of straddle bents[1]	16

[3] California High-Speed Rail Business Plans (California High-Speed Rail 2022 Business Plan) suggest blended railroad systems and operations. These terms refer to integrating the HSR system with existing intercity, and commuter and regional rail systems through coordinated infrastructure (blended systems) and scheduling, ticketing, and other means (blended operations).

[4] The No Project Alternative uses the 2020 Southern California Association of Governments Regional Transportation Plan as the basis for analysis, with the exception of the transportation analysis, which uses the 2016 Regional Transportation Plan as the baseline. This is because of the date and availability of traffic counts collected for the project.

Feature	Total
Number of at-grade railroad crossings[2]	8
Number of major water crossings[3]	9
Number of roadway overcrossings and undercrossings	57

[1] A straddle bent is a pier structure that spans (or "straddles") the functional/operational limit of a roadway, highway, or railway.
[2] Railroad crossing means a railroad crossing another railroad.
[3] Features considered major water crossings are Los Angeles River, Rio Hondo (and basins), San Gabriel River, North Fork Coyote Creek, La Mirada Creek, Coyote Creek, Brea Creek, Fullerton Creek, and Carbon Creek.



Source: Authority 2025

Figure 2-1 Los Angeles to Anaheim Project Section Alignment

Currently, two to three mainline tracks occur throughout the corridor, with a variable number of freight siding tracks. The HSR project seeks to maintain existing operations in the corridor while minimizing impacts outside of the existing right-of-way. To accomplish this, the HSR project would add one new mainline track from LAUS to Fullerton Junction and would use existing tracks, where possible, to ensure that, overall, the project section includes two electrified tracks along the corridor for HSR, which would be shared with other passenger rail operators. These two electrified tracks are referred to herein as *shared tracks*. The specific details of Shared Passenger Track Alternative A and Shared Passenger Track Alternative B are discussed further below.

2.2.1 Shared Passenger Track Alternative A

2.2.1.1 Alignment

Table 2-2 summarizes the alignment of Shared Passenger Track Alternative A through the corridor cities. Figure 2-2 depicts the northern project section limit and its relationship with Los Angeles County Metropolitan Transportation Authority's proposed Link Union Station Project. Figure 2-3 through Figure 2-8, as referenced therein, provide cross-sections of various points along the project alignment discussed in Table 2-2. Where applicable, Table 2-2 also provides references to later sections of this project description that provide further details of other project components including, but not limited to, ancillary facilities, HSR and passenger rail stations, and the LMFs.

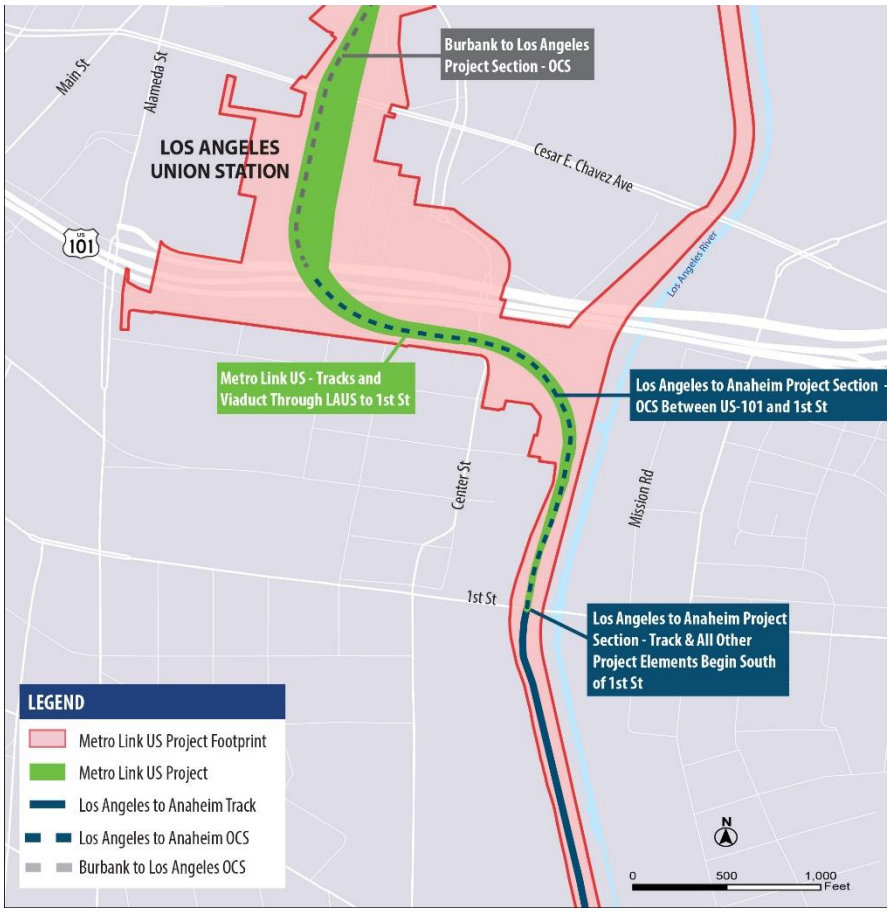
Table 2-2 Shared Passenger Track Alternative A Alignment

Project Section Segment	Segment Alignment Description
Los Angeles and Vernon	▪ The project section would begin immediately south of LAUS, at the northern edge of US 101, where a viaduct built as part of the Link US Project would begin. The installation of the OCS north of US 101 was previously approved as part of the Burbank to Los Angeles Project Section in January 2022. From US 101 to 1st St, the Authority would build the OCS for HSR. At 1st St, Shared Passenger Track Alternative A would include the HSR project tracks and all other project infrastructure south to ARTIC. ▪ Starting at the LAUS platforms, HSR trains would run on tracks built as part of Link US, cross over US 101, Commercial St, and Ducommun St on a viaduct, and come down to grade just before 1st St, joining the existing railroad right-of-way. From this tie-in point south, the HSR trains would use the existing tracks, which would be upgraded with an OCS. Refer to Figure 2-3 for a cross section of the track between 1st St and 4th St. ▪ Between 7th St and I-10, two HSR layover tracks would be added west of the shared tracks; refer to Section 2.2.1.2, Ancillary Facilities, for more information. The shared tracks would cross under the Olympic Blvd roadway overcrossing and rise onto an existing railroad bridge to cross over Washington Blvd and the Los Angeles River. The shared tracks would return to at grade east of Soto St and enter Vernon. ▪ The BNSF and shared tracks would pass by the BNSF Los Angeles Intermodal Facility (referred to as Hobart Yard). The proposed 26th St LMF would be south of Hobart Yard and is described in more detail in Section 2.2.1.4, Light Maintenance Facility.
Commerce, Bell, Montebello, and Pico Rivera	▪ East of Hobart Yard, the tracks would cross at grade under I-710 and enter Commerce. Starting from west of Eastern Ave, the shared tracks would rise onto a new elevated structure, referred to as the *Commerce Flyover*; refer to Section 2.2.1.5, Freight or Passenger Railroad Modifications, and Figure 2-4 for more information on the Commerce Flyover, which is designed to pass by the BNSF Commerce Intermodal Facility (referred to as *Commerce Yard*). ▪ The Commerce Flyover would cross over Eastern Ave and pass by the existing Commerce Metrolink Station. The elevated shared tracks would not connect with the Commerce Metrolink Station's existing location, which would be relocated. Refer to Section 2.2.1.5 for more information on the Commerce Metrolink Station's relocation. The elevated tracks would return to grade before I-5 and would remain so throughout Montebello and Pico Rivera.

Project Section Segment	Segment Alignment Description
Santa Fe Springs and Norwalk	▪ The tracks would continue east into Santa Fe Springs and cross over Pioneer Blvd, Norwalk Blvd, and Los Nietos Rd. All of these would be new grade separations, with the roadway lowered and tracks crossing over on new railroad bridges; refer to Section 2.2.1.6, State Highway or Local Roadway Modifications. ▪ From Slauson Ave to Telegraph Ave, the track configuration would remain at grade with four tracks, as depicted on Figure 2-5. ▪ South of Telegraph Rd, the shared tracks would diverge outside of the existing railroad right-of-way and rise onto retained fill to cross over Florence Ave on a new bridge, while three BNSF mainline tracks would cross Florence Ave on the existing railroad bridge. The shared tracks would transition from retained fill onto an elevated structure that crosses over Lakeland Rd, while the BNSF tracks would remain at grade in their current configuration throughout this segment. The elevated structure would continue south and transition from the west side of the corridor over to the east side. Figure 2-6 depicts the track configuration south of Lakeland Rd. ▪ The elevated structure would veer east out of the existing railroad corridor and cross over Imperial Hwy, necessitating modifications to the existing Norwalk/Santa Fe Springs Metrolink Station, described in Section 2.2.1.3, High-Speed Rail Station Facilities, in more detail. Under Shared Passenger Track Alternative A, HSR trains would not stop at the Norwalk/Santa Fe Springs Metrolink Station. ▪ South of the station, the elevated structure would rejoin the existing railroad corridor and transition back down to at grade just west of Carmenita Rd.
La Mirada and Buena Park	▪ The tracks would continue at grade through La Mirada and Buena Park. In Buena Park, the track design would conflict with the location of the existing Buena Park Metrolink Station platform, necessitating the station's relocation (refer to Section 2.2.1.5 for more information).
Fullerton	▪ East of Dale St, the tracks would enter Fullerton. The Fullerton Municipal Airport is south of the railroad corridor, and the shared tracks would require lowering as they pass by the airport to prevent the HSR project, including the OCS, trains, and all other project components, from conflicting with the airport runway protection zone. The shared tracks on the north side of the corridor would also need to transition to the south side in order to serve the existing Fullerton Metrolink/Amtrak Station farther south. ▪ The shared tracks would transition underneath the BNSF tracks via a short below-grade section, in a braced trench. The trench would start approximately 850 feet east of Dale St and, approaching the eastern end of the Fullerton Airport, would cross under the BNSF tracks to the south side of the corridor, continuing adjacent to the existing BNSF tracks (which would remain at grade). Refer to Figure 2-7 for a cross section of the shared tracks in the trench after they transition to the south side of the corridor. ▪ The shared tracks would return to grade just before Gilbert St. Continuing east, a fourth track would be added to the south side of the corridor at the Fullerton Metrolink/Amtrak Station, which would require modifications, described in more detail in Section 2.2.1.3. Under Shared Passenger Track Alternative A, HSR trains would not stop at the Fullerton Metrolink/Amtrak Station. ▪ East of the station at Fullerton Junction, the three tracks along the north side of the corridor would be dedicated to BNSF trains and would continue east through Fullerton Junction. The tracks along the south side of the corridor would be dedicated to passenger trains and travel south to ARTIC.

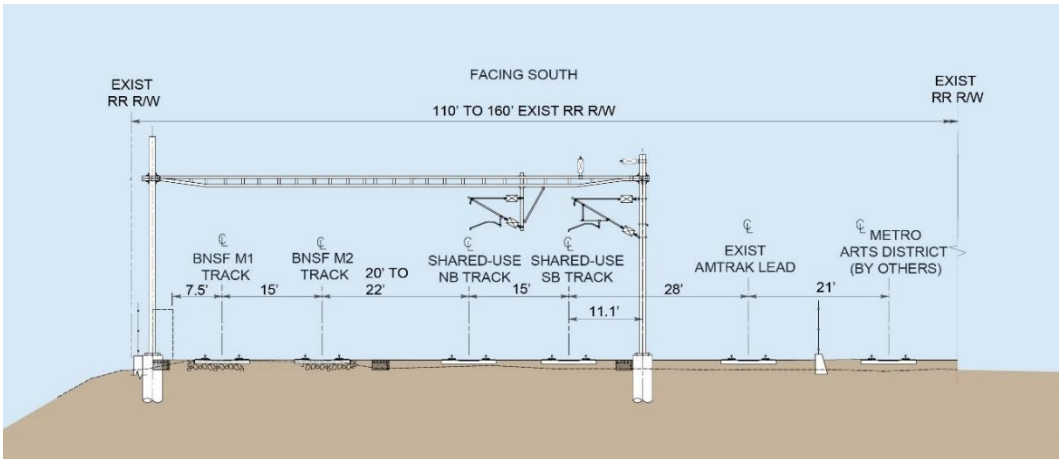
Project Section Segment	Segment Alignment Description
Anaheim	▪ South of Fullerton Junction, the tracks would enter Anaheim. From Fullerton Junction to ARTIC, the two existing tracks would be electrified to allow for shared operations with Metrolink. Several freight trains per day currently run on the existing tracks and would retain operation rights in the future. The two shared tracks would remain at grade through the rest of Anaheim. ▪ The existing at-grade crossings at Orangethorpe Ave, La Palma Ave, Sycamore St, Broadway St, Santa Ana St, South St, Vermont Ave, and Ball Rd would be maintained. Refer to Figure 2-8 for the cross section that is representative of the two-track configuration throughout this segment. ▪ From south of Ball Rd to south of Cerritos Ave, two HSR layover tracks would be added along the west side of the corridor. Cerritos Avenue and State College Blvd would be grade separated, with the roadways lowered and the tracks crossing over the road on new railroad bridges. ▪ The tracks would end at ARTIC, where HSR platforms and station facilities would be added to the existing station, described in more detail in Section 2.2.1.3.

ARTIC = Anaheim Regional Transportation Intermodal Center; Authority = California High-Speed Rail Authority; BNSF = BNSF Railway; HSR = high-speed rail; I = interstate; LAUS = Los Angeles Union Station; Link US = Link Union Station; OCS = overhead contact system; project section = Los Angeles to Anaheim Project Section; US 101 = U.S. Highway 101



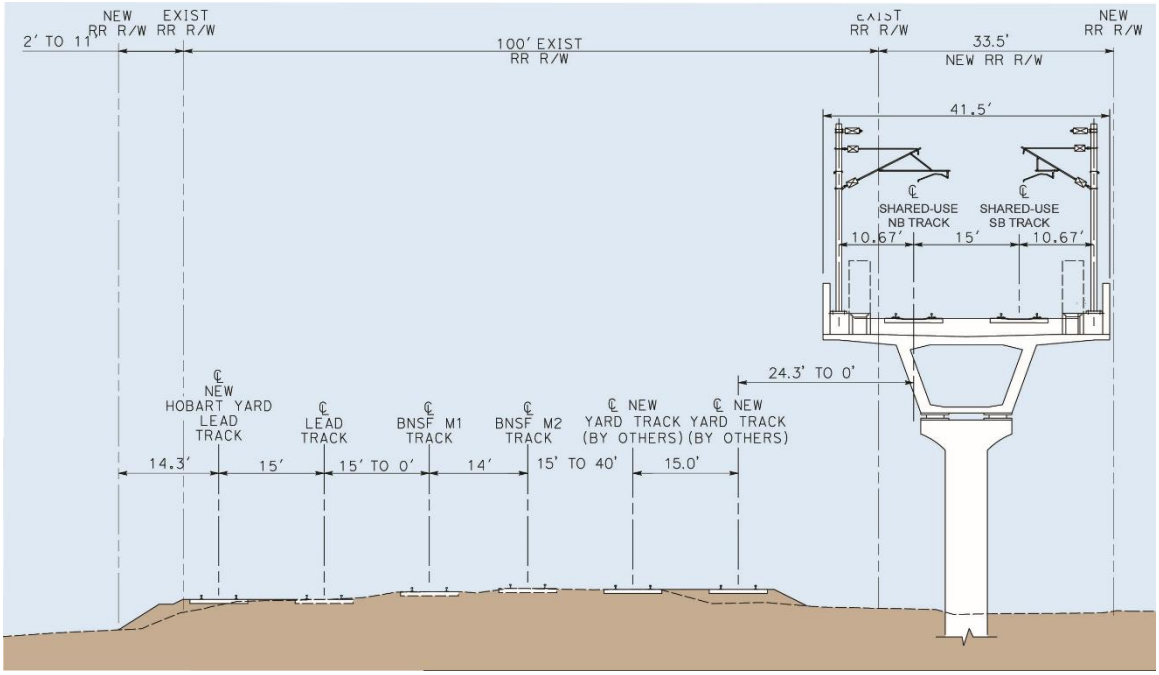
Source: Authority 2025
Link US = Link Union Station; Metro = Los Angeles County Metropolitan Transportation Authority; OCS = overhead contact system

Figure 2-2 High-Speed Rail and Link Union Station Project



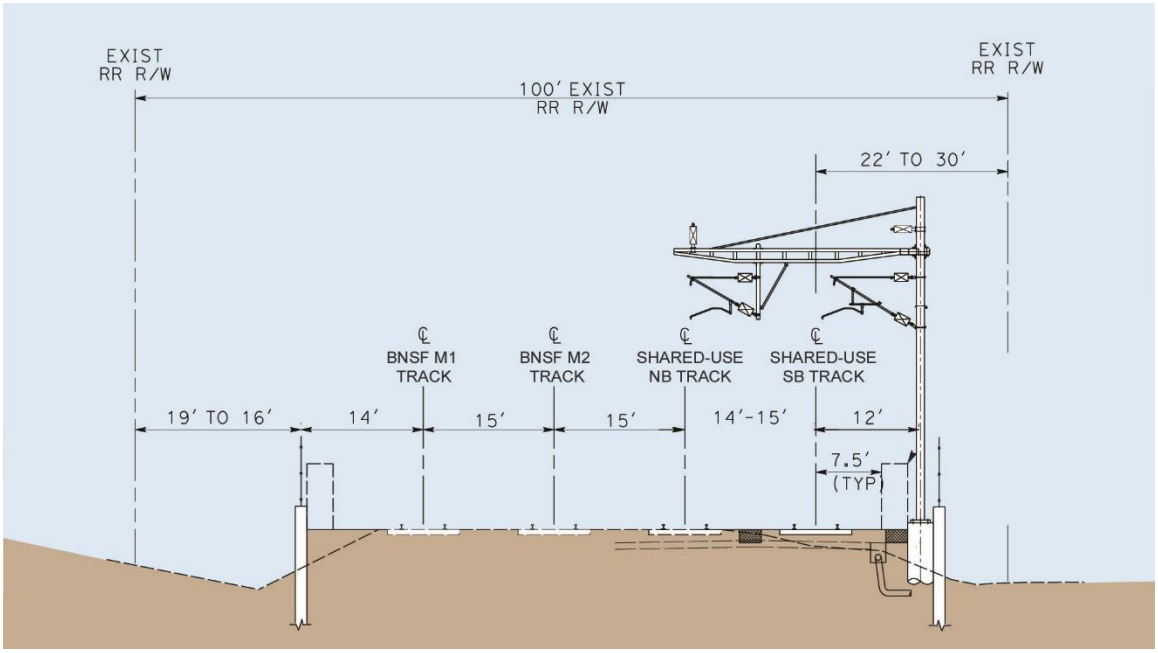
Source: Authority 2025
M = main track; RR = railroad; R/W = right-of-way; NB = northbound; SB = southbound

Figure 2-3 At-Grade Cross Section between 1st Street and 4th Street



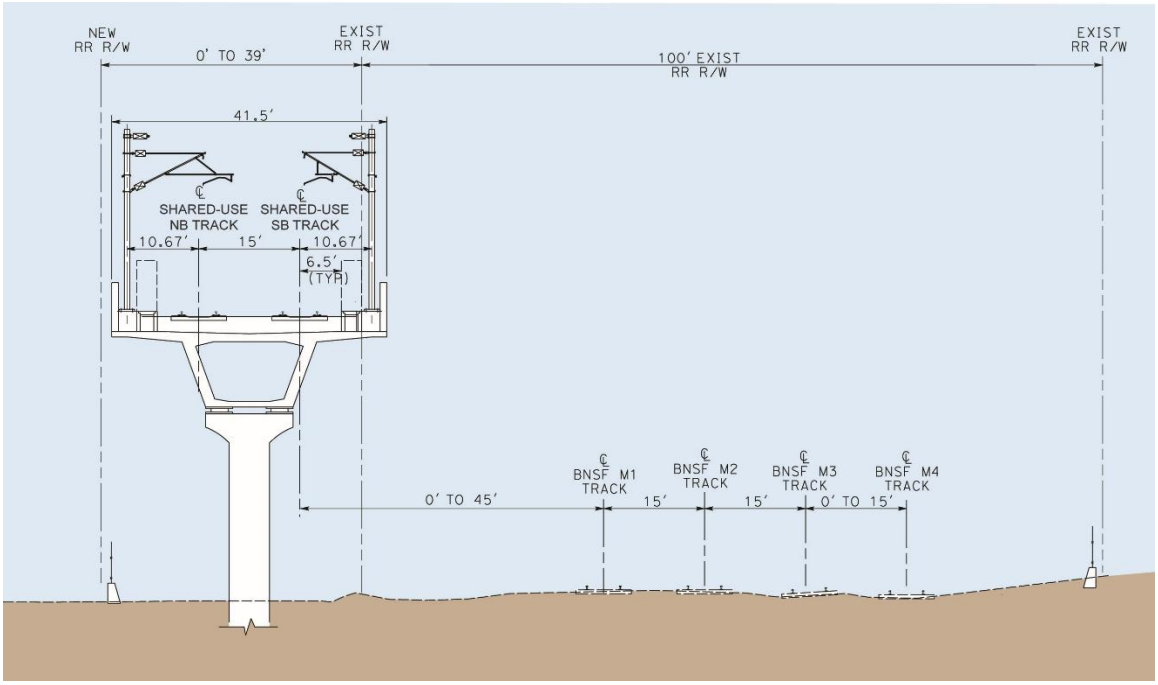
Source: Authority 2025
M = main track; RR = railroad; R/W = right-of-way; NB = northbound; SB = southbound

Figure 2-4 Elevated Cross Section between Atlantic Boulevard and Eastern Avenue (Commerce Flyover)



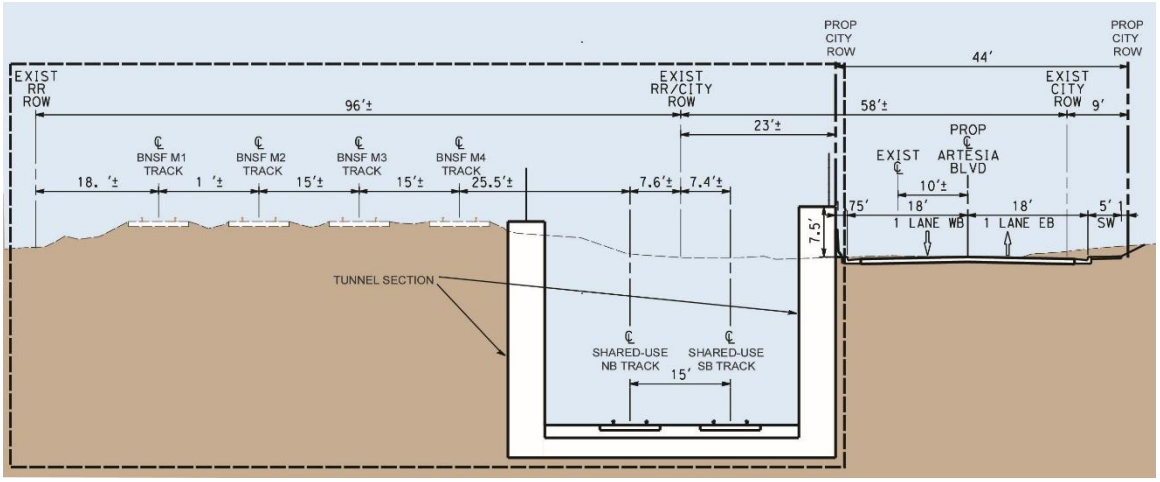
Source: Authority 2025
M = main track; RR = railroad; R/W = right-of-way; NB = northbound; SB = southbound

Figure 2-5 At-Grade Cross Section from Slauson Avenue to Telegraph Road



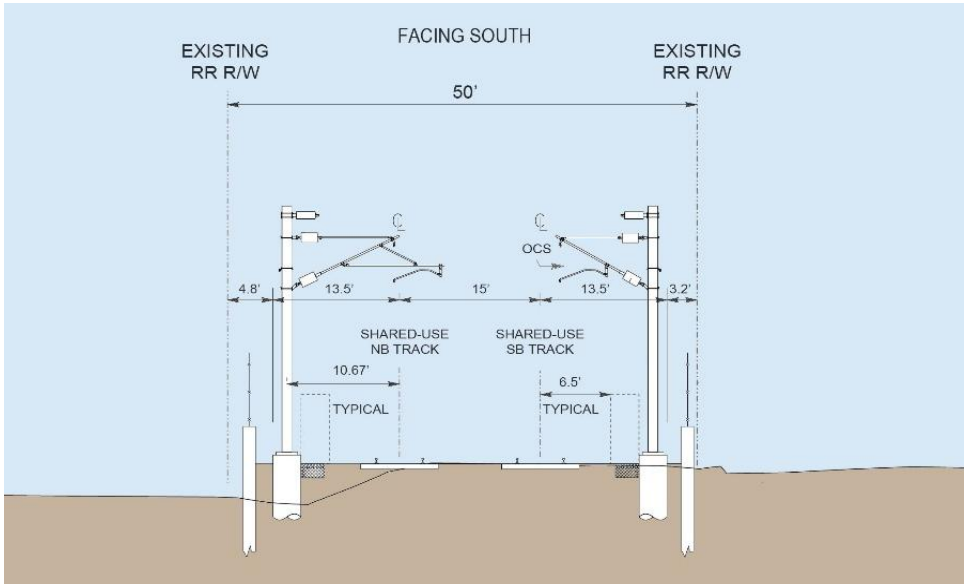
Source: Authority 2025
M = main track; RR = railroad; R/W = right-of-way; NB = northbound; SB = southbound

Figure 2-6 Elevated Cross Section South of Lakeland Road



Source: Authority 2025
Figure not to scale
M = main track; OCS = overhead contact system; RR R/W = railroad right-of-way

Figure 2-7 Braced Trench Cross Section East of Fullerton Airport



Source: Authority 2025
OCS = overhead contact system; RR = railroad; R/W = right-of-way; NB = northbound; SB = southbound

Figure 2-8 At-Grade Cross Section between La Palma Avenue and Ball Road

2.2.1.2 Ancillary Facilities

Systems Facilities

HSR trains would draw power from California's existing electricity grid, with power distributed to the trains via the overhead contact system (OCS). The project would not include construction of a separate power source; rather, the existing grid would supply power to the OCS through the extension of underground or overhead transmission lines to a series of power substations positioned along the railroad corridor. The transformation and distribution of electricity would occur through the following three types of stations:

- Traction power substations (TPSS), which would transform high-voltage electricity supplied by public utilities to the train operating voltage. The project section would include two TPSS sites (Los Angeles and Anaheim), which would both be adjacent to existing utility transmission lines and outside of the existing right-of-way. The TPSS sites would be spaced apart by approximately 30 miles along the project alignment and each include an approximately 450-square-foot control room and two 115/50-kilovolt or 230/50-kilovolt, single-phase transformers that would both be rated at 60 megavolt-amperes. The foregoing components would be installed within an approximately 32,000-square-foot area, and screening of each TPSS would be provided by a wall or fence.
- A switching station to connect and balance the electrical load between tracks and switch OCS power on or off in the event of a power outage or emergency. A switching station would be installed in Santa Fe Springs, generally midway between the two TPSS sites, approximately 15 miles from the nearest TPSS and 0.1 mile northeast of the project alignment. Installation of the station's equipment would require approximately 9,600 square feet.
- Paralleling stations, or autotransformer stations, to provide voltage stabilization and equalize current flow. Two paralleling stations would be installed along the project alignment, with one each along the segments between the Santa Fe Springs switching station and the Los Angeles and Anaheim TPSS sites. Each paralleling station would be adjacent to the HSR right-of-way, include an approximately 450-square-foot control room, and require approximately 8,000 square feet.

Table 2-3 provides the locations of the proposed TPSSs, switching station, and paralleling stations.

Table 2-3 Traction Power, Paralleling, and Switching Station Locations

Traction Power Station Type	Location
Traction power substation (two sites)	**City of Los Angeles:** South of Washington Blvd, and west of Soto St, adjacent to the existing railroad viaduct **City of Anaheim:** On the northeast corner of Lewis St and Cerritos Ave, southwest of the HSR tracks
Paralleling station (two sites)	**City of Montebello:** Southwest corner of Maple Ave and Sycamore St, south of the HSR tracks (co-located with the relocated Commerce Metrolink Station) **City of Fullerton:** Northwest corner of Dale St and Artesia Ave, south of the HSR tracks
Switching station	**City of Santa Fe Springs:** Northeast corner of Los Nietos Rd and Santa Fe Springs Rd, north of BNSF Railway tracks

Source: Authority 2025
HSR = high-speed rail

Signaling and Train-Control Elements

The National Transportation Safety Board, FRA, and other agencies mandate Positive Train Control, a train safety system designed to automatically implement safety protocols and provide communication with other trains to reduce the risk of a potential collision. Because of the lower operating speed of HSR trains in this project section compared to other HSR project sections, this project section would operate using conventional Positive Train Control signaling rather than a specialized HSR signaling system. This project section would use a radio-based communications network, including a fiber optic backbone and communications towers approximately every 2 to 3 miles, depending on the terrain and selected radio frequency. The towers would be in the HSR corridor in a fenced area of approximately 20 feet by 15 feet, including a 10- by 8-foot communications shelter and a 6- to 8-foot diameter, 100-foot-tall communications pole. These

communications facilities could be co-located within the TPSSs. Where communications towers cannot be located with TPSSs or other HSR facilities, they would be within or near the HSR corridor in an approximately 20- by 15-foot fenced area.

Layover Tracks

Layover tracks are used to store and restock trains during the day, in between service runs, and to store trains at night at terminus stations when they are not in service. Layover tracks are required where high-speed trains would end their runs, near LAUS and ARTIC, to support layover functions such as overnight storage, draining of waste tanks, filling of potable water tanks, and cleaning of windows, among others, as well as daily scheduled interior cleaning of passenger areas that would occur prior to the train entering revenue service. The Los Angeles layover tracks would be between Seventh Street and Interstate (I-) 10, and could be accessed for cleaning activities through the Amtrak Eighth Street Yard. The Anaheim layover tracks would be from south of Ball Road to south of Cerritos Avenue, and would have a layover support facility at the northeast corner of Lewis Street and Cerritos Avenue.

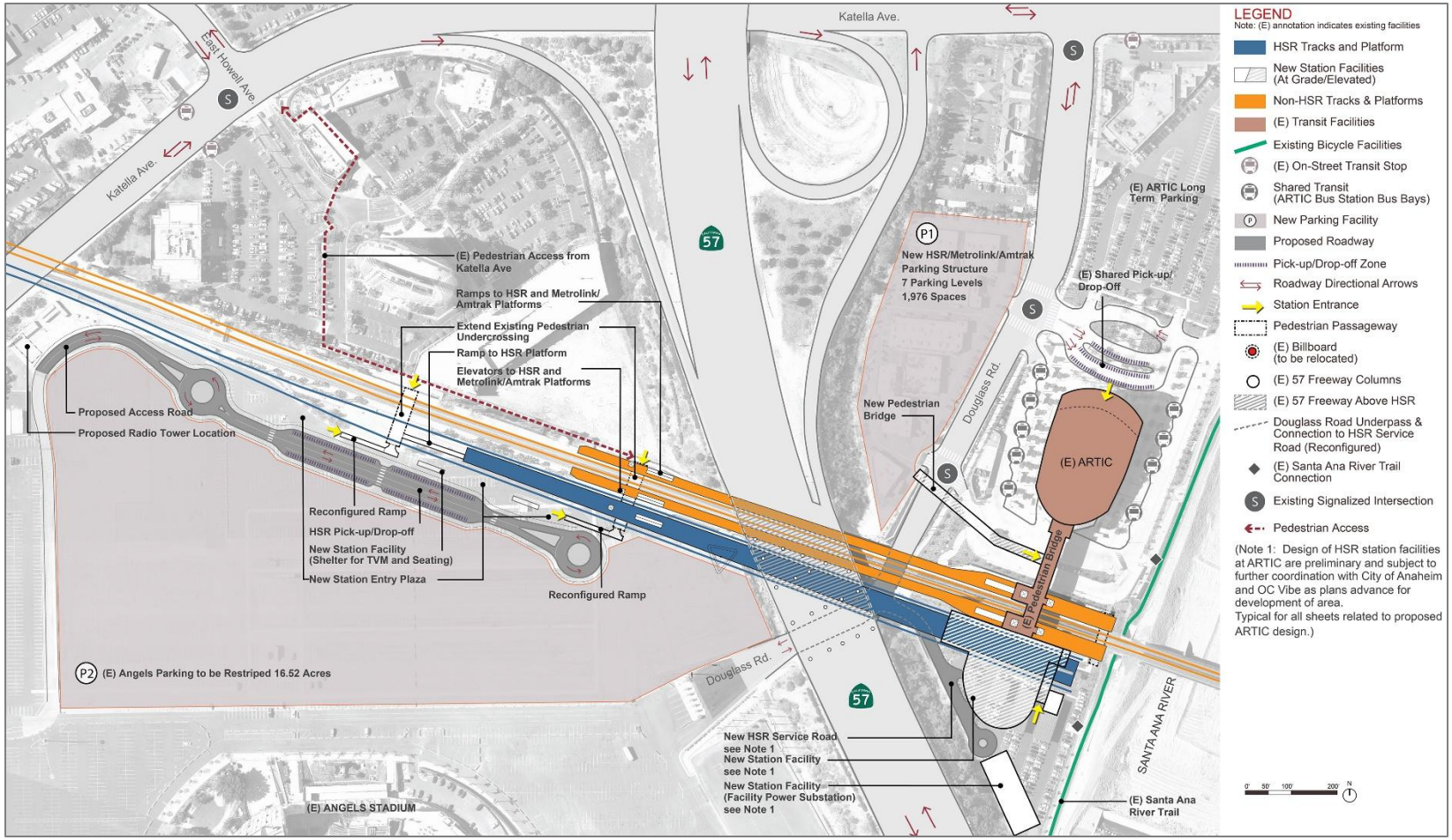
2.2.1.3 High-Speed Rail Station Facilities

Because the project section is within an existing corridor with passenger rail service, Shared Passenger Track Alternative A does not propose new HSR stations but rather modifies existing passenger rail stations to allow for shared operations with HSR. Shared Passenger Track Alternative A would include an HSR station platform and facilities at ARTIC, described below.

ARTIC High-Speed Rail Platform and Station Facilities

The proposed HSR platform and station facilities at the existing ARTIC station would be at grade, with two new HSR tracks and a single 1,410-foot center platform for HSR, south of and parallel to the existing Metrolink/Amtrak tracks and platforms. The HSR platform would be accessed through an extension of ARTIC's existing pedestrian bridge from the northeast and through an extension of two existing pedestrian tunnels on the western end of the existing ARTIC platforms. The Authority would work with the City of Anaheim, as the ARTIC passenger terminal owner, to share the passenger amenities inside ARTIC in the near term. Once ridership increases enough that combined HSR and local-provider passenger volumes exceed the design capacity of the ARTIC passenger terminal building, the Authority would build a separate HSR passenger terminal. This new HSR station building, included within the project footprint and depicted on Figure 2-9, would be at the southern end of the pedestrian bridge, along with a facility power substation to provide electricity to the building. The existing Metrolink/Amtrak parking lot north of Angel Stadium would be reconfigured into a pick-up/drop-off area and connected to the existing access road from Katella Avenue. The project would maintain the two existing access points between the Santa Ana River Trail and ARTIC. Radio towers would be built adjacent to the access road at Katella Avenue.

This project would include a new parking structure adjacent to State Route 57 and Katella Avenue, providing 1,350 HSR parking spaces and 626 replacement parking spaces to account for existing parking spaces at ARTIC that would be displaced by the HSR tracks and platform, for a total of 1,976 parking spaces. Figure 2-9 provides an illustration of the HSR platform and station facilities at ARTIC.



Source: Authority 2025

Figure 2-9 High-Speed Rail Platform and Facilities at ARTIC

2.2.1.4 Light Maintenance Facility

HSR operations in Southern California would require a Level III[5] LMF for fleet storage, cleaning, repair, overnight layover accommodations, and servicing facilities, including the necessary water cistern and power facilities. The 26th Street LMF is designed to follow the Authority's *Requirements for High-Speed Trainset Fleet and Infrastructure Maintenance Facilities Technical Memorandum* (Authority 2024).

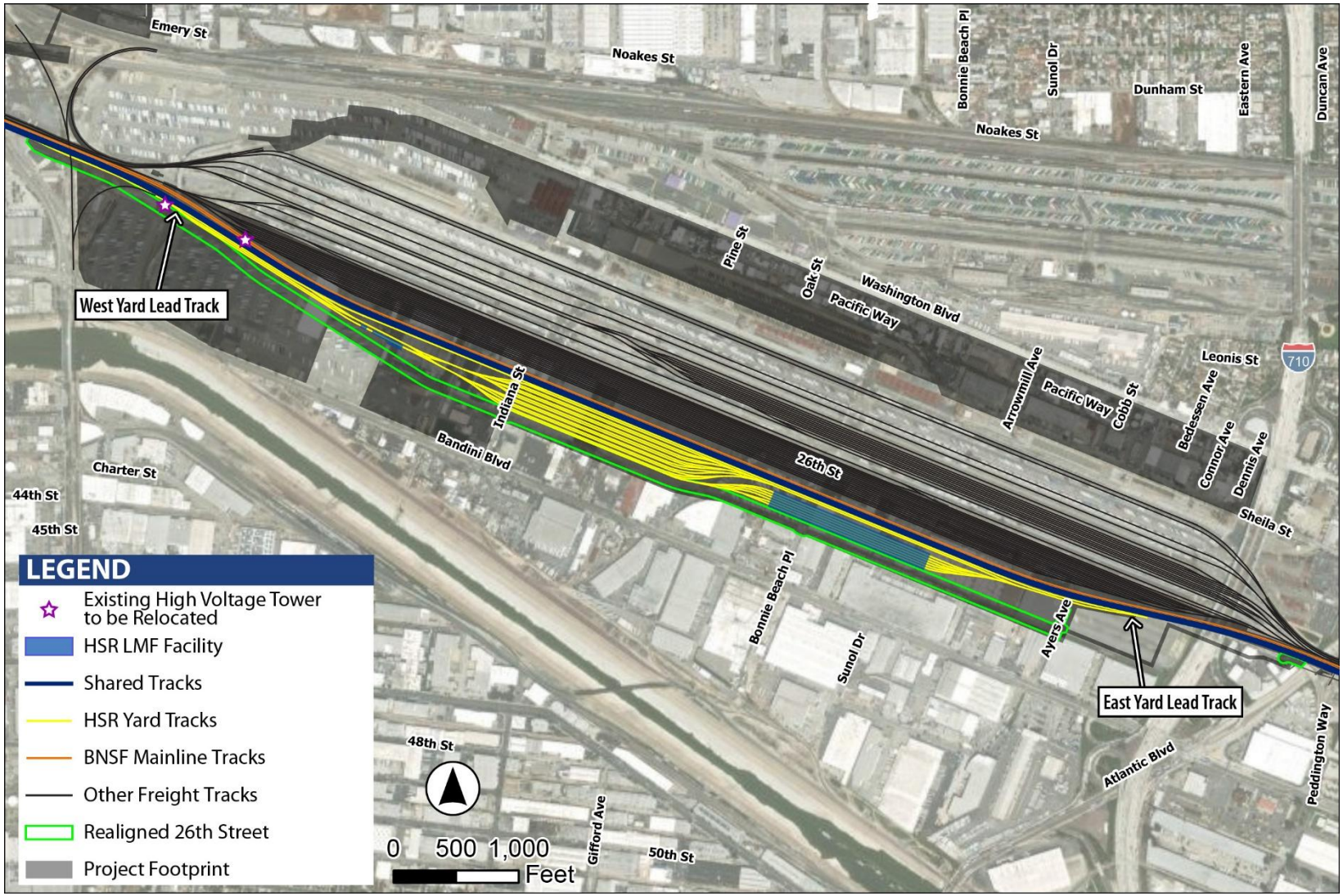
Refer to Figure 2-10 for an overview of the 26th Street LMF, which would have an overall size of 50 acres and be roughly bounded by the realigned mainline tracks on the north, a relocated 26th Street on the south, Downey Road on the west, and I-710 on the east. The changes on the south side of Hobart Yard would require 26th Street to be realigned, which would provide access to the LMF. Two high-voltage utility towers would be relocated to accommodate the 26th Street realignment. Refer to Section 2.2.1.5 for more details on changes adjacent to Hobart Yard.

The LMF would be double-ended, with all tracks having access from the mainline on both the eastern and western sides. HSR trains would access the LMF from the east and west on two new yard lead tracks, which would be south of the mainline tracks. Within the 26th Street LMF, there would be an outdoor train yard with 12 yard tracks to allow for the storage of 24 single trainsets, along with a 1,345-foot-long, six-track shop building, which could accommodate 12 trainsets. The internal LMF access roads would be wide enough to accommodate service vehicles, consolidate commissary functions, and provide more clearance from the OCS poles to the yard tracks.

2.2.1.5 Freight or Passenger Railroad Modifications

Shared Passenger Track Alternative A would modify the existing rail corridor to create a corridor that is primarily four mainline tracks (two electrified and shared with other passenger rail operators) from Los Angeles to Fullerton, and two mainline tracks (electrified and shared with both passenger rail and freight operators) from Fullerton to Anaheim. Freight rail would operate primarily on the nonelectrified tracks, although the electrified tracks could accommodate freight traffic if necessary (up to 10 BNSF freight trains per day would be able to use the two passenger rail tracks), while maintaining service and operation levels for all operators within the corridor. The following sections describe the freight and passenger railroad modifications in more detail, which include modifications to BNSF storage and intermodal facilities as well as modifications to and relocations of existing passenger rail stations.

[5] The Authority defines three levels of maintenance to be conducted at an LMF.



Source: Authority 2025

Figure 2-10 Shared Passenger Track Alternative A: 26th Street Light Maintenance Facility

BNSF Railway Storage and Intermodal Facilities

Adding and electrifying tracks in the existing right-of-way would require the Authority to remove or modify track and right-of-way that is currently used or planned for future use by BNSF for train storage and intermodal operations. This requires modifications to BNSF's plans for expansion at its yards in Vernon and Commerce. In several locations, Shared Passenger Track Alternative A would require removal/relocation of existing BNSF infrastructure. Thus, Shared Passenger Track Alternative A would replace the affected BNSF infrastructure, primarily adjacent to Hobart Yard, to maintain BNSF capacity and avoid disruptions to operations.

Table 2-4 lists the BNSF storage capacity that would be removed from the corridor and relocated to the new consolidated storage yard adjacent to Hobart Yard; refer to Figure 2-11 for an overview of the relocated infrastructure. The new storage yard would provide 101,094 track feet of storage, including 5,850 track feet for a new runaround track,[6] which is slightly more than the amount removed from the corridor (90,940 track feet). This is a result of the layout and overall length of the new consolidated yard. The tracks need to be operational while fitting within the new yard space and maintaining the removed storage capacity, and therefore some replacement tracks would be longer than the ones that are being removed from the corridor. In addition to the relocations described in Table 2-4, some BNSF yard lead and storage tracks throughout the corridor would be relocated and replaced within the same area, with the same level of storage capacity and operational functionality maintained. This includes the Pico Rivera Yard north and south lead tracks, La Mirada Yard lead track and storage track, and Fullerton storage track on the southern side between Commonwealth Avenue and Highland Avenue.

Table 2-4 BNSF Railway Facility or Track to Be Removed or Modified

HSR Project Element Affecting BNSF Infrastructure	BNSF Facility/Track to Be Removed/Relocated/Modified	Length of Removed/ Relocated Tracks (TF)
HSR mainline and layover tracks	BNSF 8th St Yard (BNSF storage tracks between 1st St and I-10 along West Bank)	35,000
Relocated Commerce Metrolink Station	South Vail Support Track (between Vail St and Minson Wy)	3,800
4th mainline track	Pico Rivera Storage Tracks	4,000
4th mainline track	Norwalk Support Track (between Telegraph Rd and Florence Ave)	4,400
4th mainline track	Santa Fe Springs Staging Track (through existing Norwalk/Santa Fe Springs Metrolink Station area)	14,600
Fullerton braced trench	Buena Park/Fullerton Storage Tracks (on north side between Dale St and Gilbert St)	15,840
4th mainline track	Fullerton support track (north of Fullerton Amtrak/Metrolink Station)	4,500
4th mainline track	Fullerton storage track (on north side between Commonwealth Ave and Highland Ave)	8,800
Total		**90,940**

Source: STV 2025
BNSF = BNSF Railway; HSR = high-speed rail; I = interstate; TF = track feet

[6] Runaround tracks allow a locomotive to move around the train and attach to the opposite end, enabling the train to be switched or moved in the desired direction. The runaround track must be as long as the longest set of cars that would be pulled. A runaround track is generally recommended for all modern rail yards to reduce overall freight congestion.



Source: STV 2025

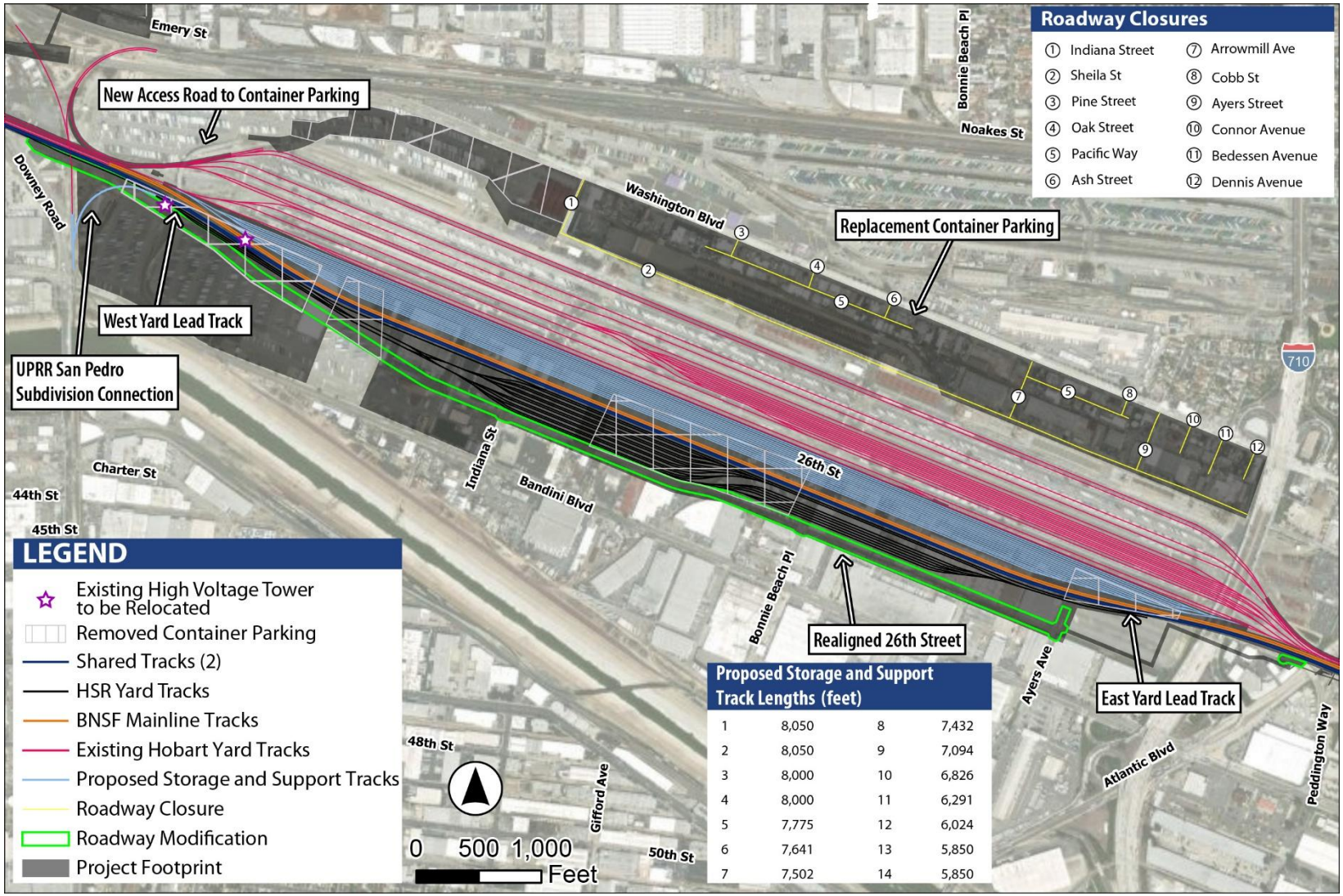
Figure 2-11 BNSF Railway Infrastructure Affected by the Los Angeles to Anaheim Project Section

BNSF Railway Los Angeles Intermodal Facility (Hobart Yard)

Figure 2-12 depicts the proposed changes at Hobart Yard. The consolidated storage yard, BNSF mainline tracks, shared tracks, and new connection to the UPRR San Pedro Subdivision would be up to 250 feet south of the current southern limit at Hobart Yard and into properties south of 26th Street. New second lead tracks into Hobart Yard from the west and east would also be added. These additional lead tracks would allow freight trains to move off the mainline tracks at speed and avoid delays and backups in an already heavily congested corridor. These track changes would require the vacation and realignment of the 26th Street right-of-way from Downey Road to Atlantic Boulevard.

The changes described above, along with LMF yard lead tracks, would displace some existing BNSF container parking south of the railroad corridor. This container parking would be replaced by acquiring properties north of Hobart Yard along the south side of Washington Boulevard, which would require a new access road north of Hobart Yard and the closure of several roads between Washington Boulevard and Sheila Street (refer to Section 2.2.1.6, State Highway or Local Roadway Modifications, for more details on roadway changes related to Hobart Yard). The new access road would also displace some existing container parking that would be replaced in the new container parking area.

Additionally, two high-voltage utility towers would be relocated to accommodate the 26th Street realignment.



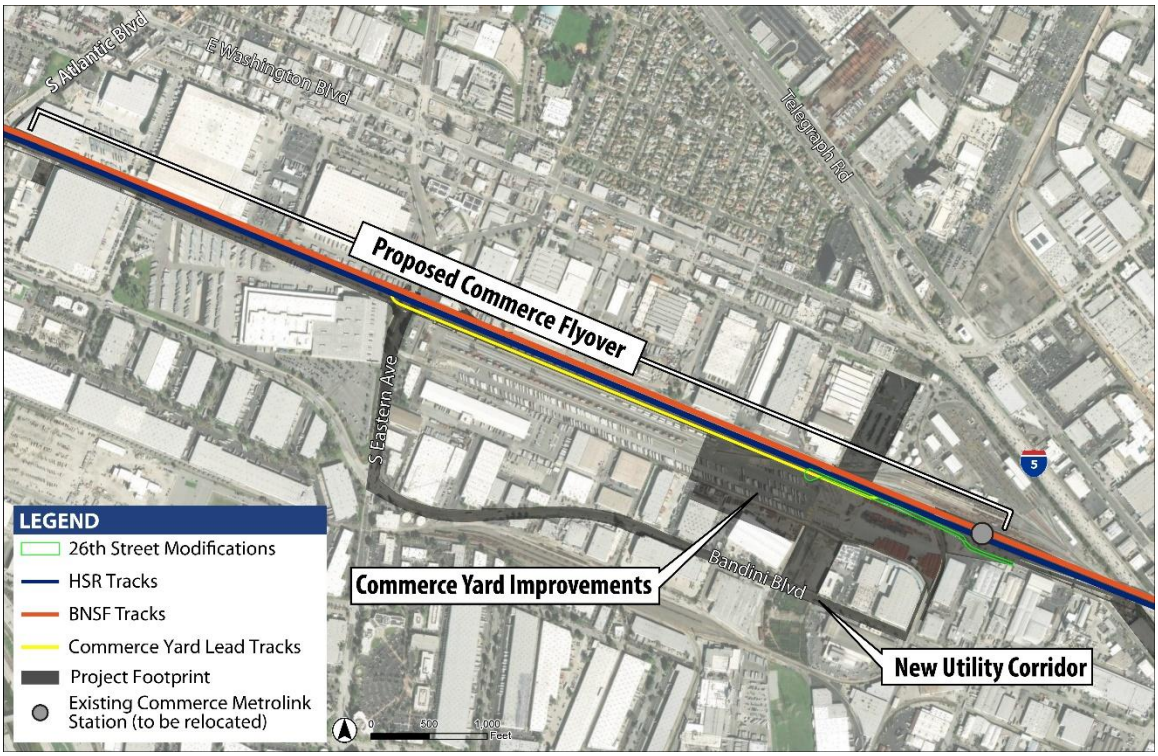
Sources: Authority 2025; ESRI 2020

Figure 2-12 Hobart Yard Modifications (Shared Passenger Track Alternative A)

BNSF Railway Commerce Intermodal Facility (Commerce Yard)

Adjacent to Commerce Yard, the Commerce Flyover would separate passenger trains on an elevated structure from the freight trains running at grade. Figure 2-13 depicts the modifications required throughout the Commerce Yard area to maintain operations. Two new BNSF yard tracks would be added, converging into a new BNSF stub lead track west of I-5, with additional connector tracks. Improvements would include reconstructing several of the lead tracks, relocating the truck entrance gates and internal access road, and adding truck storage parking and a switching tail track. These yard improvements would require a portion of 26th Street to be closed; 26th Street currently provides access to the yard from the east, but the new entrance to the yard would require approximately 1,300 feet of the road to be closed.

Existing utilities along the south side of the railroad corridor would be relocated to the south in a new utility corridor, within Bandini Boulevard. Additionally, the high-voltage power lines currently running south of and parallel to the railroad corridor must be raised to provide the required clearance from the Commerce Flyover structure.



Sources: Authority 2025; ESRI 2020

Figure 2-13 Commerce Flyover and Commerce Yard Modifications

Modified Metrolink Stations

Norwalk/Santa Fe Springs Metrolink Station Modifications

HSR trains would not stop at the Norwalk/Santa Fe Springs Metrolink Station, but modifications would be required for HSR operations, as depicted on Figure 2-14. The existing platforms at Norwalk/Santa Fe Springs Metrolink Station are in an area that would not be able to accommodate an additional mainline track and shared operations between HSR and Metrolink. Adding the additional mainline track would require shifting the existing platforms to an area with a straight section of track. Therefore, the Metrolink platforms would be moved to be served by the shared tracks on the new elevated structure, approximately 350 feet east of the existing alignment (at their farthest points). The modified station would be elevated, with two 680-foot side

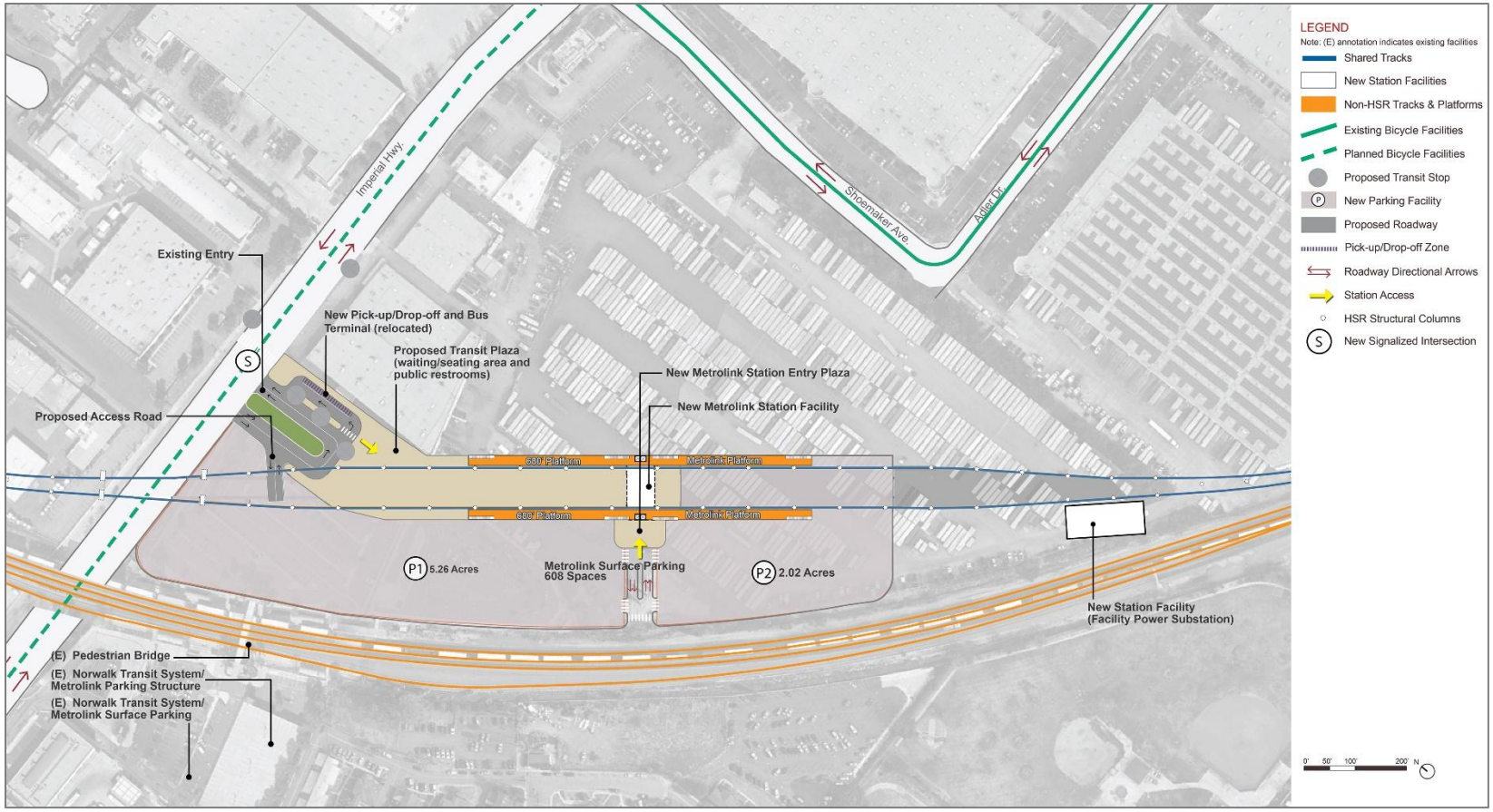
platforms, capable of future extension to 1,000 feet; the space for the future extension is included within the project footprint.

The existing Metrolink parking and bus drop-off west of the railroad corridor would be relocated to the east of the elevated structure to provide better access to the modified Metrolink platforms. Station entry points would be on Imperial Highway to the north and at Shoemaker Avenue and Adler Drive to the east and would require new access roadways. On Imperial Highway, the signalization leading into the parking garage would require modifications, as required by the City of Norwalk. The project would provide 608 surface parking spaces west of the modified platforms to replace the parking spaces at the existing Norwalk/Santa Fe Springs Metrolink Station displaced by the HSR modifications. Parking and pick-up/drop-off for Metrolink passengers would be within surface parking lots.

Fullerton Metrolink/Amtrak Station Modifications

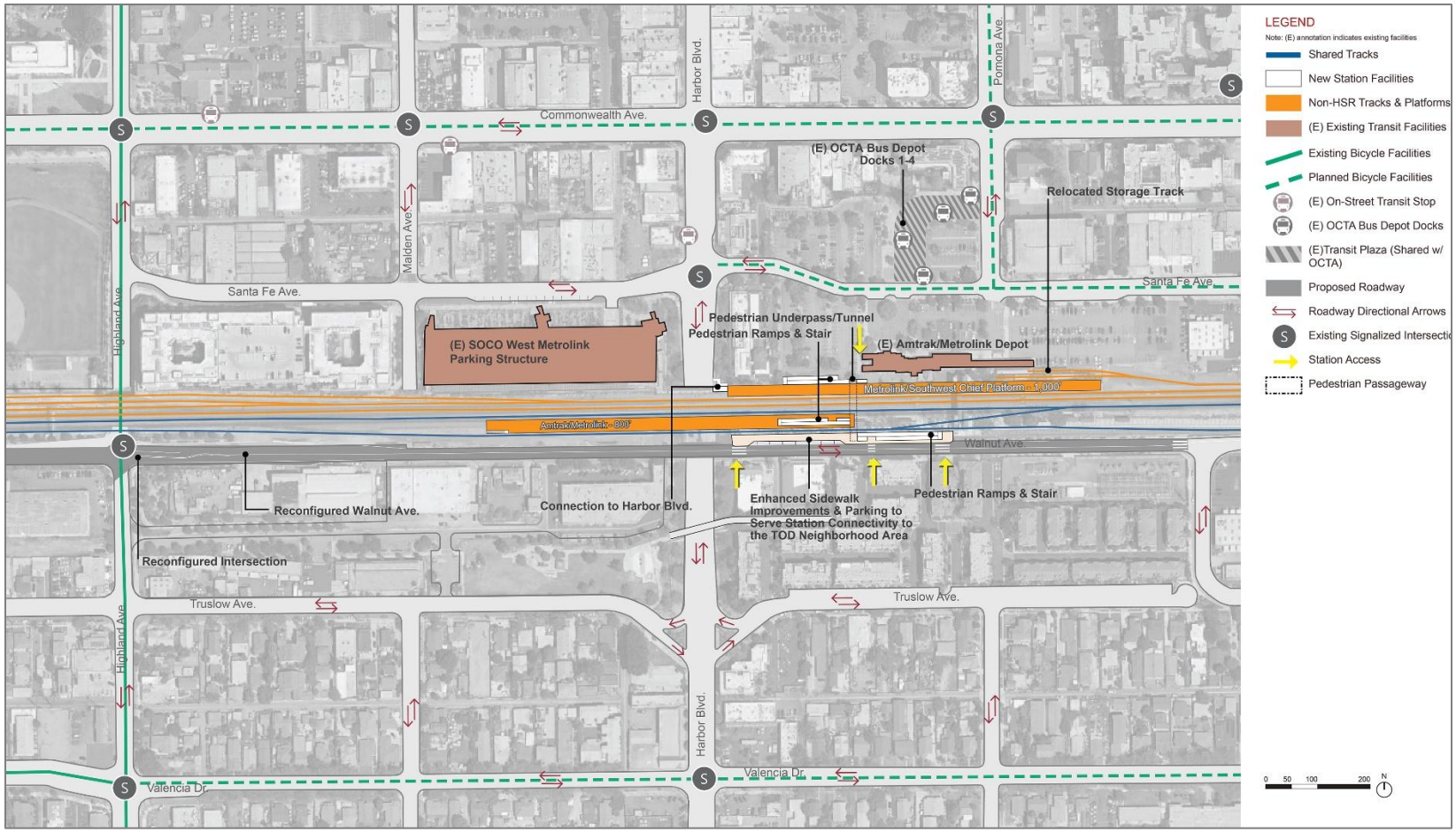
HSR trains would not stop at the Fullerton Metrolink/Amtrak Station, but modifications would be required for HSR operations, as depicted on Figure 2-15. At the Fullerton Metrolink/Amtrak Station, a fourth mainline track would need to be added on the southern side of the corridor, outside of the existing railroad right-of-way, to allow HSR trains to pass through the station. A new railroad bridge would be built over Highland Avenue to accommodate the new shared track, which requires Walnut Avenue to be slightly realigned to the south, and the intersection of Walnut Avenue and Highland Avenue would need to be redesigned.

Several modifications would occur for the Metrolink/Amtrak station platforms. The two existing platforms on the southern side would be removed, and a new 800-foot center platform would be added over Harbor Boulevard. The existing pedestrian bridge east of Harbor Boulevard that connects the two side platforms would be removed and replaced by a new pedestrian underpass that connects the existing northern platform, new center platform, and Walnut Avenue to the south, with ramps and stairs providing access. South of the new Metrolink/Amtrak center platform, Walnut Avenue would be slightly narrowed, and sidewalk improvements and crosswalks would be added east of Harbor Boulevard to improve station connectivity to the neighborhood.



Source: Authority 2025

Figure 2-14 Modified Norwalk/Santa Fe Springs Metrolink Station Site Plan



Source: Authority 2025

Figure 2-15 Modified Fullerton Metrolink/Amtrak Station Site Plan

Relocated Metrolink Stations

Commerce Metrolink Station Relocation

As stated in Section 2.2.1.1, the Commerce Flyover would require the Commerce Metrolink Station to be relocated to an area northeast of the intersection of Telegraph Road and Maple Avenue, which is approximately 0.75 mile to the east of its current location. The relocated Commerce Metrolink Station would be for Metrolink trains only; no HSR trains would stop at this station. An HSR paralleling station would be co-located at the relocated station site. Most of the relocated station would be within Montebello, including the replacement surface parking, plaza, and internal access roads; the platform and nonpublic station facilities north of the railroad corridor would be within Commerce.

The relocated station would have a center platform along the southern side of the rail corridor, accessible from the north via Sycamore Street via a new pedestrian underpass, and from the south via Maple Avenue. The intersection of Sycamore Street and Supply Avenue would be modified with pedestrian crosswalks, and the intersection of Telegraph Road and Maple Avenue would have a new signal and crosswalks to provide safe access to the new station location. All the existing station facilities, such as a transit plaza for buses, bicycle parking, vehicle parking (140 spaces), and a pick-up/drop-off area for motorists, would be replaced south of the corridor, to be accessed via Maple Avenue.

Buena Park Metrolink Station Relocation

As stated in Section 2.2.1.1, the HSR project would add and realign tracks through the existing Buena Park Metrolink Station, necessitating the relocation of the station. The Buena Park Metrolink Station would be relocated to between South Coyote Creek and Beach Boulevard, approximately 0.75 mile northwest of its current location within Buena Park. The proposed relocated Buena Park Metrolink Station would be for Metrolink trains only; no HSR trains would stop at this station.

The relocated station would have a center platform provided along the northern side of the existing rail corridor, accessible from the north via Stage Road and from the east via Beach Boulevard. A new signalized intersection is proposed at the intersection of Coyote Creek and Stage Road. All existing station facilities would be replaced, including a transit plaza for buses, bicycle parking, vehicle parking (313 spaces), and a pick-up/drop-off area for motorists.

2.2.1.6 State Highway or Local Roadway Modifications

Modifications at Roadway Crossings

Shared Passenger Track Alternative A would cross 57 federal, state, and locally controlled roadways, most of which are currently grade separated. A portion of the foregoing roadway crossings would require, in general, one of the following three types of roadway modifications:

- **New grade separations:** There are six roadway crossings where new railroad grade separations (railroad bridge crossings) would be needed. Five of the existing at-grade roadways would be fully grade separated and lowered to cross under the proposed railroad bridges. One roadway (Lakeland Road) would be partially grade separated and would not require vertical realignment, because the shared tracks would cross over the roadway on a new bridge.
- **Modified existing grade separations (roadway vertical realignment):** The alignment would use existing railroad bridges throughout the corridor, most of which would need to be widened or new bridges would need to be added adjacent to the existing bridges to accommodate new tracks. At nine of these existing grade separations, the roadways would require vertical realignments (i.e., be lowered) to provide the required clearances between the road and the railroad bridge.

- **Modified existing grade separations (new piers and abutments):** Thirteen existing grade separations would require modified piers or abutments to accommodate new or widened railroad bridges. No vertical realignment of the roadway would be required.

Eight at-grade crossings at Orangethorpe Avenue, La Palma Avenue, Sycamore Street, Broadway, Santa Ana Street, Sixth Street, Vermont Avenue, Ball Road, and Lewis Street would remain at grade and would be modified only to add OCS to the existing tracks.

Additionally, all existing roadway overcrossings that would span over the shared tracks would be modified to have protective barriers on the top to prevent people or objects from entering the HSR right-of-way from the bridge. Detailed plans of barrier type and installation details will be determined during the Preliminary Engineering for Procurement design phase and coordination with the corridor stakeholders.

Table 2-5 lists all the crossings and any modifications that would be required along the Shared Passenger Track Alternative A alignment.

Table 2-5 Modifications to Roadway Crossings (from northwest to southeast)

Roadway	City	Current Crossing Configuration	Proposed Modification
1st St	Los Angeles	Overcrossing	None
4th St	Los Angeles	Overcrossing	None
6th St/Whittier Blvd	Los Angeles	Overcrossing	None
7th St	Los Angeles	Overcrossing	None
I-10 (Santa Monica freeway)	Los Angeles	Overcrossing	None
Olympic Blvd	Los Angeles	Overcrossing	None
Washington Blvd	Los Angeles	Undercrossing	None
Soto St	Los Angeles	Undercrossing	None
Downey Rd	Vernon	Undercrossing	New pier and abutments within roadway
Private access road	Vernon	Overcrossing	None
I-710 (Long Beach freeway)	Vernon	Overcrossing	None
Atlantic Blvd	Commerce	Undercrossing	New piers and abutments within roadway
Eastern Ave	Commerce	Undercrossing	New piers and abutments within roadway
I-5 (Santa Ana freeway)	Commerce	Undercrossing	None
Telegraph Rd	Commerce	Undercrossing	None
Garfield Ave	Commerce	Undercrossing	None
Greenwood Ave	Montebello	Undercrossing	None
Paramount Blvd	Pico Rivera	Undercrossing	None
SR 19 (Rosemead Blvd)	Pico Rivera	Undercrossing	Road vertical realignment, new abutments within roadway
Passons Blvd	Pico Rivera	Undercrossing	New pier and abutments within roadway
Slauson Ave	Santa Fe Springs	Overcrossing	Pier modifications

Roadway	City	Current Crossing Configuration	Proposed Modification
I-605 (San Gabriel freeway)	Santa Fe Springs	Overcrossing	None
Pioneer Blvd	Santa Fe Springs	At grade	New grade separation; roadway lowered to cross under tracks on a new railroad bridge
Norwalk Blvd	Santa Fe Springs	At grade	New grade separation; roadway lowered to cross under tracks on a new railroad bridge
Los Nietos Rd	Santa Fe Springs	At grade	New grade separation; roadway lowered to cross under tracks on a new railroad bridge
Santa Fe Springs Rd	Santa Fe Springs	Undercrossing	New piers and abutments within roadway
Telegraph Rd	Santa Fe Springs	Undercrossing	New pier and abutments within roadway
Florence Ave	Santa Fe Springs	Undercrossing	New pier and abutments within roadway
Lakeland Rd	Santa Fe Springs	At grade	New grade separation (for HSR only); roadway remains at grade and shared tracks on elevated structure
Imperial Hwy	Santa Fe Springs, Norwalk	Undercrossing	None
Carmenita Rd	Santa Fe Springs	Undercrossing	Roadway vertical realignment, new piers and abutments within roadway
Rosecrans Ave/Marquardt Ave	Santa Fe Springs	Overcrossing	None
Valley View Ave	Santa Fe Springs, La Mirada	Undercrossing	New piers and abutments within roadway
Alondra Blvd	La Mirada	Overcrossing	Bridge replacement, roadway vertical realignment
SR 39 (Beach Blvd)	Buena Park	Undercrossing	New piers and abutments within roadway
Dale St	Buena Park	Undercrossing	Roadway vertical realignment, new piers and abutments within roadway
Gilbert St	Fullerton	Undercrossing	Roadway vertical realignment, new pier and abutments within roadway
Commonwealth Ave	Fullerton	Undercrossing	Roadway vertical realignment, new piers and abutments within roadway
Euclid St	Fullerton	Undercrossing	New pier and abutments within roadway
Highland Ave	Fullerton	Undercrossing	New abutments within roadway
Harbor Blvd	Fullerton	Undercrossing	New piers and abutments within roadway
Lemon St	Fullerton	Undercrossing	None

Roadway	City	Current Crossing Configuration	Proposed Modification
Orangethorpe Ave	Anaheim	At grade	None
SR 91 (Riverside freeway)	Anaheim	Overcrossing	None
La Palma Ave	Anaheim	At grade	None
Sycamore St	Anaheim	At grade	None
Lincoln Ave	Anaheim	Undercrossing	None
Broadway	Anaheim	At grade	None
Santa Ana St	Anaheim	At grade	None
South St	Anaheim	At grade	None
Vermont Ave	Anaheim	At grade	None
Ball Rd	Anaheim	At grade	None
Lewis St	Anaheim	Undercrossing	Roadway vertical realignment, new piers and abutments within roadway
Cerritos Ave	Anaheim	At grade	New grade separation; roadway lowered to cross under tracks on a new railroad bridge
State College Blvd	Anaheim	At grade	New grade separation; roadway lowered to cross under tracks on a new railroad bridge
Katella Ave	Anaheim	Undercrossing	Roadway vertical realignment, roadway widening, new piers and abutments within roadway
SR 57 (Orange freeway)	Anaheim	Overcrossing	None
Douglass Rd	Anaheim	Undercrossing	Roadway vertical realignment, new piers and abutments within roadway

Source: Authority 2025
Authority = California High-Speed Rail Authority; HSR = high-speed rail; I = interstate; overcrossing = road over train tracks; SR = State Route; undercrossing = road under train tracks

New Grade Separations

As indicated in Table 2-5, five existing at-grade roadways would be grade separated for passenger rail and freight, with the roadway lowered to cross under new railroad bridges. These new grade separations are described in detail in Table 2-6, which includes references to the temporary and permanent footprints depicted on Figure 2-16 through Figure 2-19. The temporary project footprint includes areas such as utility easements and construction staging areas while the permanent project footprint includes areas that would be needed permanently for operation of HSR or areas that would permanently lose access from changes in roadway elevation. These grade separations are early action projects, which are described further in Section 2.3.1, Grade Separations.

Lakeland Avenue would be grade separated for HSR and passenger rail on a new elevated structure, but the freight tracks would remain at grade, with a minimal area of temporary and permanent impacts. Therefore, it is not included in Table 2-6.

Table 2-6 New Grade Separations with Roadway Vertical Realignments

Roadway	Grade Separation Description
Pioneer Boulevard (Figure 2-16)	▪ The existing roadway configuration at the Pioneer Blvd crossing in Santa Fe Springs consists of two northbound and two southbound traffic lanes and left-turn lanes to Rivera Rd (which is immediately adjacent and to the north of the railroad corridor) in both directions, with sidewalks on both sides of the road. ▪ The at-grade crossing would be grade separated as a roadway undercrossing, with the railroad tracks on a bridge structure. Approximately 1,275 feet of Pioneer Blvd would be lowered, with the roadway approximately 20 feet below its current elevation at the lowest point of the undercrossing. Additional excavation depths would be required for bridge footings, utilities, pump station, and roadway subbase. ▪ Direct access to Rivera Rd would be removed and a new roadway that loops west and south just north of the crossing would provide access from Pioneer Blvd to Rivera Rd.
Norwalk Boulevard (Figure 2-17)	▪ The existing roadway configuration at the Norwalk Blvd crossing in Santa Fe Springs consists of two northbound and two southbound traffic lanes and a southbound left-turn lane to eastbound Los Nietos Rd (which is immediately south of the crossing), with sidewalks on both sides of the roadway. ▪ The at-grade crossing would be grade separated as a roadway undercrossing, with the railroad tracks on a bridge structure. Approximately 1,325 feet of Norwalk Blvd would be lowered by approximately 20 feet below its current elevation at the lowest point. Roadway clearance from bottom of bridge to top of pavement would be approximately 15 to 16.5 feet. Additional excavation depths would be required for bridge footings, utilities, pump station, and roadway subbase. ▪ The intersection of Norwalk Blvd and Los Nietos Rd would also be lowered, as also described below.
Los Nietos Road (Figure 2-17)	▪ The existing roadway configuration at the Los Nietos Rd crossing in Santa Fe Springs consists of two westbound and two eastbound traffic lanes and a westbound left-turn lane to Norwalk Blvd (which is immediately west of the crossing), with sidewalks on both sides of the roadway. ▪ The at-grade crossing would be grade separated as a roadway undercrossing, with the railroad tracks on a bridge structure. Approximately 1,700 feet of Los Nietos Rd would be lowered, with the roadway elevation approximately 25 feet below its current elevation at the lowest point. Roadway clearance from bottom of bridge to top of pavement would be approximately 15 to 16.5 feet. Additional excavation depths would be required for bridge footings, utilities, pump station, and roadway subbase. ▪ The intersection of Norwalk Blvd and Los Nietos Road would also be lowered as part of this and the Norwalk Blvd grade separation.
Cerritos Avenue (Figure 2-18)	▪ The existing roadway configuration at the Cerritos Ave crossing in Anaheim consists of two westbound and two eastbound traffic lanes with sidewalks on both sides of the roadway. ▪ The at-grade crossing would be grade separated as a roadway undercrossing, with the railroad tracks on a bridge structure. Approximately 1,850 feet of Cerritos Ave would be lowered by 25 feet below its current elevation at the lowest point. Roadway clearance from bottom of bridge to top of pavement would be approximately 15 to 16.5 feet. Additional excavation depths would be required for bridge footings, utilities, pump station, and roadway subbase. ▪ In order to maintain its intersection with Cerritos Ave, Vernon St would need to be lowered about 5 feet below its existing elevation. Similarly, Lewis St would need to be lowered to maintain the intersection with Cerritos Ave.

Roadway	Grade Separation Description
State College Boulevard (Figure 2-19)	▪ The existing roadway configuration at the State College Blvd crossing in Anaheim consists of three northbound and three southbound traffic lanes with sidewalks on both sides of the roadway. ▪ The at-grade crossing would be grade separated as a roadway undercrossing, with the railroad tracks on a bridge structure. Approximately 1,660 feet of State College Blvd would be lowered below its current elevation, up to 25 feet at the lowest point. Roadway clearance from bottom of bridge to top of pavement would be approximately 17.5 feet. Additional excavation depths would be required for bridge footings, utilities, pump station, and roadway subbase. ▪ In order to maintain its intersections with State College Blvd, Howell Ave and Wright Circle would also need to be lowered below its existing elevation, along with multiple driveways and access roads along State College Blvd.



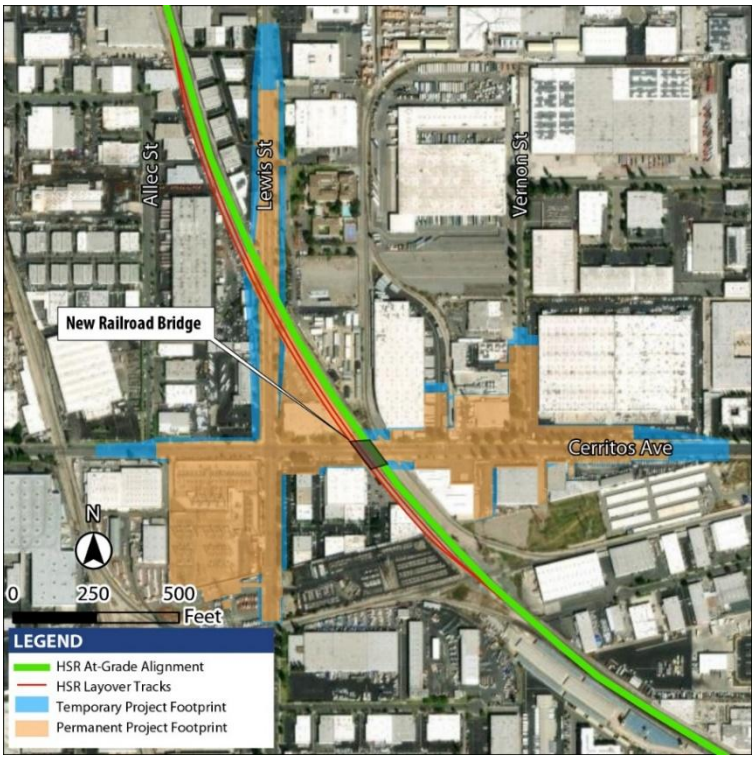
Sources: Authority 2025; ESRI 2020

Figure 2-16 Pioneer Boulevard Grade Separation



Sources: Authority 2025; ESRI 2020

Figure 2-17 Norwalk Boulevard and Los Nietos Road Grade Separations



Sources: Authority 2025; ESRI 2020

Figure 2-18 Cerritos Avenue Grade Separation



Sources: Authority 2025; ESRI 2020

Figure 2-19 State College Boulevard Grade Separation

Modifications to Other Roadways

In addition to modifications to roadway crossings described above for the railway alignment, several other roadways along the alignment would require modifications as a result of other project elements.

Roadway Modifications by Hobart Yard

The addition of new storage tracks and realignment of existing tracks throughout the Hobart Yard area would require 26th Street to be realigned. The roadway currently forms the southern boundary of Hobart Yard. At the eastern end of the yard, at Atlantic Boulevard, 26th Street connects to Pennington Way. From the UPRR San Pedro Subdivision track to Atlantic Boulevard, 26th Street would be realigned about 500 feet south from its existing location, at the farthest point. The realigned 26th Street would provide access to the 26th Street LMF, just north of the street. Currently, 26th Street intersects with Indiana Avenue, Bonnie Beach Place, and Ayers Avenue. Indiana Avenue and Bonnie Beach Place would connect with the realigned 26th Street, and the segments north of the realigned 26th Street would be closed. The realigned 26th Street would not connect to Pennington Way; it would end at Ayers Avenue, and Pennington Way would end in a cul-de-sac west of Atlantic Boulevard, accessible only from Bandini Boulevard. The existing segment of 26th Street between Ayers Avenue and Pennington Way would be closed.

Several roads between Sheila Street and Washington Boulevard are proposed to be closed because of the relocated BNSF truck parking. These roadway closures include the following, and are depicted on Figure 2-12 in yellow:

- Indiana Street
- S Pine Street
- Pacific Way
- Oak Street

- Ash Street
- Arrowmill Avenue
- Ayers Avenue
- Bedessen Avenue
- Connor Avenue
- Dennis Avenue

Roadway Modifications by Commerce Yard

Access is provided by 26th Street to BNSF's Commerce Yard from the east, but the yard improvements would require the entrance to the yard to be relocated approximately 1,300 feet to the east. This segment of 26th Street, within BNSF property, would be closed, and a new cul-de-sac would be provided at the end of the road.

Roadway Modifications by the Fullerton Braced Trench

The braced trench in Fullerton would be located partially outside the existing railroad right-of-way along the south side of the corridor, within the existing Artesia Boulevard right-of-way. Artesia Boulevard would be realigned slightly south, from approximately Pritchard Avenue to Gilbert Street. The intersection of Artesia Avenue and Gilbert Street would be reconfigured.

Roadway Modifications by Fullerton Metrolink/Amtrak Station

The changes at the Fullerton Metrolink/Amtrak Station would require Walnut Avenue to be realigned. Walnut Avenue currently runs east to west from Richman Avenue to Lawrence Avenue, south of and adjacent to the existing railroad corridor. With the addition of a fourth mainline track, Walnut Street would be slightly realigned south, from Richman Avenue to Lemon Street. All existing lanes and sidewalks would be maintained. At Highland Avenue, Walnut Street would be lowered slightly to meet the new, lowered grade of Highland Avenue, and the intersection would be reconfigured.

2.2.2 Shared Passenger Track Alternative B

Shared Passenger Track Alternative B would follow the same alignment and share the same project features and operational assumptions as Shared Passenger Track Alternative A, except for the location of the LMF as discussed below.

2.2.2.1 Alignment

The BNSF mainline and shared tracks for Shared Passenger Track Alternative B would be the same as those discussed for Shared Passenger Track Alternative A, as described in Section 2.2.1.1, because the LMF location would not affect the BNSF mainline and shared tracks.

2.2.2.2 Ancillary Facilities

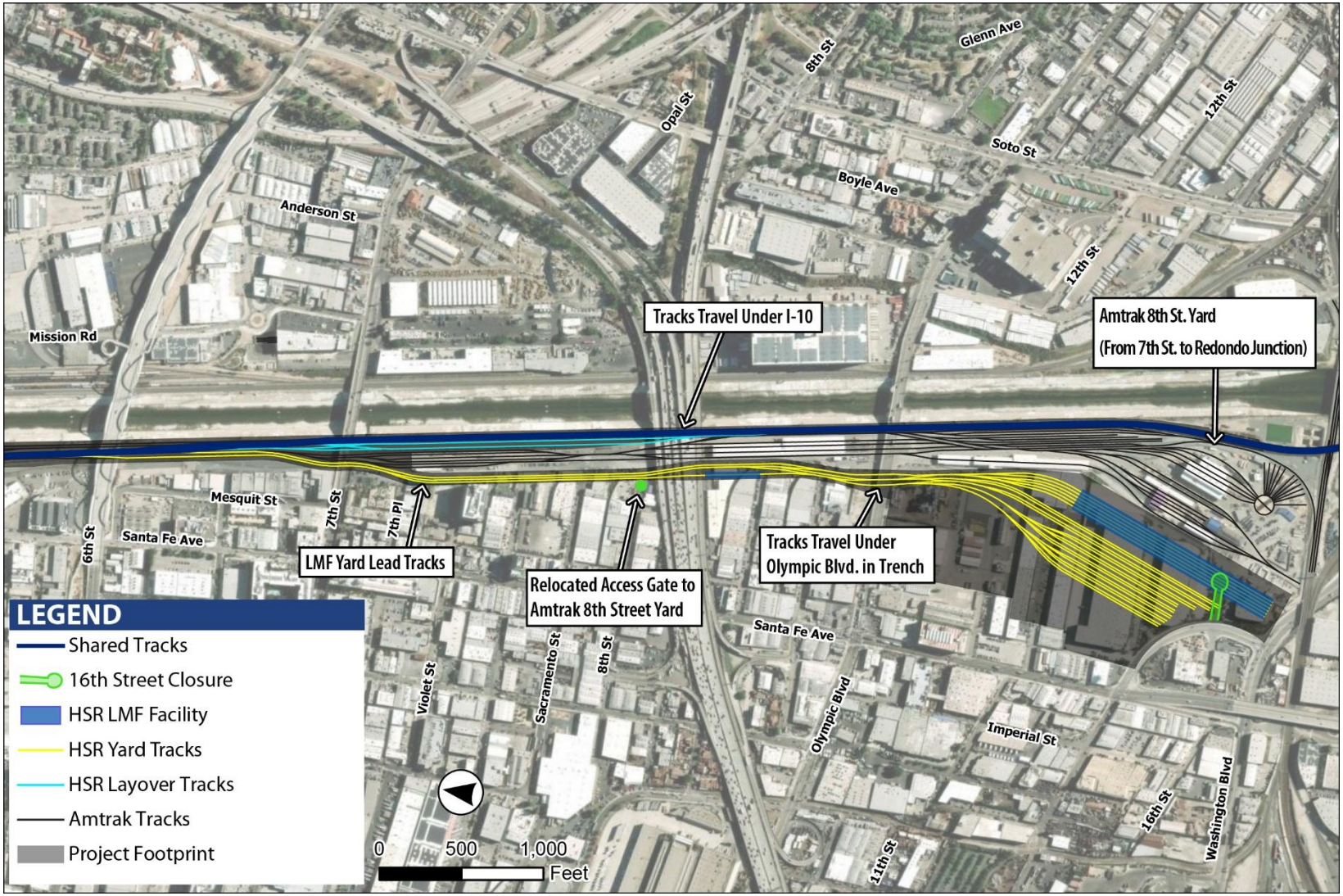
The proposed ancillary facilities for Shared Passenger Track Alternative B would be the same as those discussed for Shared Passenger Track Alternative A. Refer to Section 2.2.1.2 for more information on proposed ancillary facilities.

2.2.2.3 High-Speed Rail Station Facilities

Under Shared Passenger Track Alternative B, the proposed HSR station facilities at ARTIC would be the same as for Shared Passenger Track Alternative A. Refer to Section 2.2.1.3 for more information on proposed station sites.

2.2.2.4 Light Maintenance Facility

Shared Passenger Track Alternative B proposes an LMF between Olympic Boulevard and 15th Street, immediately adjacent to the existing Amtrak Eighth Street Yard. The 15th Street LMF would include the same maintenance operation facilities as the 26th Street LMF under Shared Passenger Track Alternative A, described in Section 2.2.1.4. Refer to Figure 2-20 for an overview of the 15th Street LMF.



Source: Authority 2025

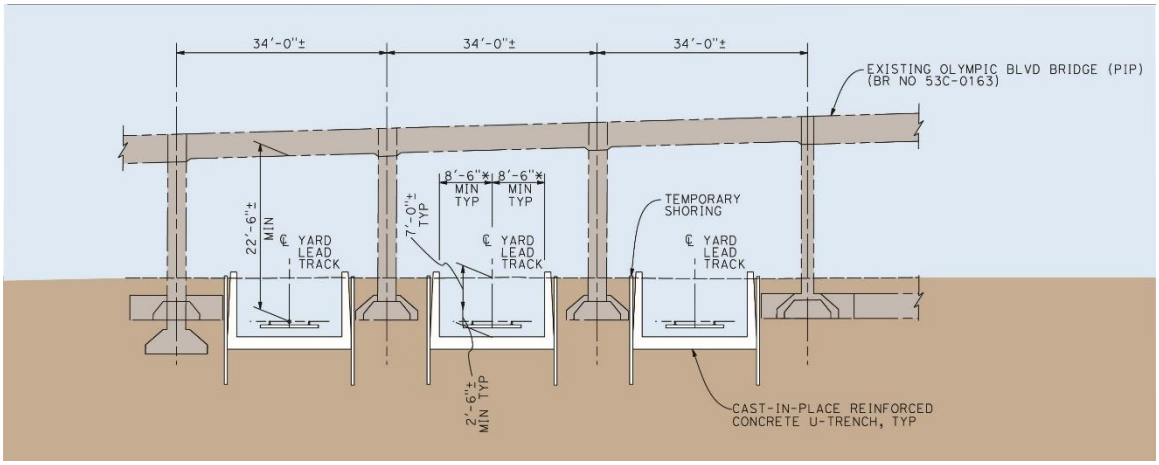
Figure 2-20 Shared Passenger Track Alternative B: 15th Street Light Maintenance Facility

The 15th Street LMF would have an overall size of 52 acres and would include a six-track shop building able to accommodate 12 trainsets, along with an outdoor train yard with a storage capacity of 20 HSR trainsets. The 15th Street LMF would be a single-ended yard, with access to and from the mainline tracks provided only from one side, at the northern end.

Primary roadway access to the 15th Street LMF would be from Washington Boulevard and 15th Street. HSR trains would access the yard via new yard lead tracks, which would start north of Seventh Street; the HSR project has been designed in coordination with the Los Angeles County Metropolitan Transportation Authority so that it would not conflict with the planned Metro Arts District Station, proposed north of Seventh Street. Two yard lead tracks would diverge from the mainline tracks out of the existing railroad right-of-way, cross under Seventh Street, and then branch into three tracks. Continuing south, the tracks would cross through part of Amtrak's existing primary access road to its Eighth Street Yard, which is currently gated at Eighth Street; these gates would need to be relocated to the west, but Amtrak would still be able to use the road to access its Eighth Street Yard. The three 15th Street LMF yard lead tracks would continue south to cross under I-10.

Approaching Olympic Boulevard, the tracks would descend to provide the minimum required 24-foot clearance between the OCS and the historic Olympic Boulevard overpass. Only one track would fit between each of the Olympic Boulevard overpass' four piers. As depicted on Figure 2-21, each track would pass through the piers within a separate trench at a finished depth of 7 feet. The Olympic Boulevard piers would not be altered during construction and would remain in place during HSR operations.

South of Olympic Boulevard, the 15th Street LMF yard lead tracks would connect to the yard on a curve, which requires special trackwork (turnout tracks). To make this connection, the LMF site would be lowered to meet the yard lead tracks. This is because the yard lead tracks would still be below grade as they come out of the Olympic Boulevard trenches, and there would not be enough room to transition the tracks back up to the existing elevation of the LMF site. Additionally, the special trackwork to connect the yard leads to the LMF tracks needs to be located on flat sections of track, not on a slope. Therefore, to make the connection between the below-grade yard lead tracks and the yard tracks, the northern portion of the LMF site (approximately 25 acres) would be excavated up to an approximate depth of 8 feet and regraded at a finished depth of approximately 5 feet to match the grade of the yard lead tracks.



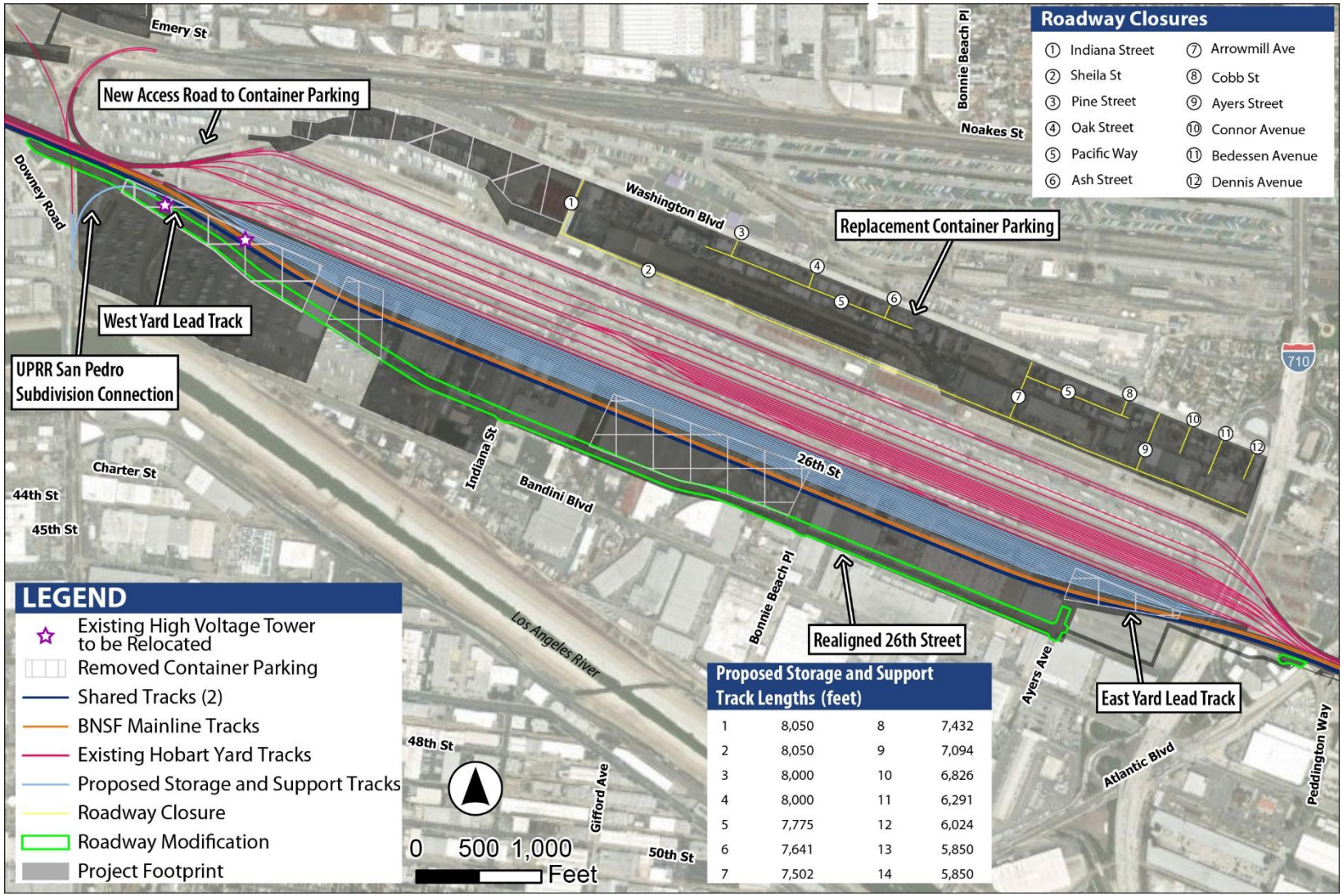
Source: Authority 2025

Figure 2-21 Trenches for 15th Street Light Maintenance Facility Yard Lead Tracks Under Olympic Boulevard

2.2.2.5 Freight or Passenger Railroad Modifications

Freight and passenger railroad modifications for Shared Passenger Track Alternative B would be the same as for Shared Passenger Track Alternative A, except for one difference at Hobart Yard. Figure 2-22 illustrates Hobart Yard without the 26th Street LMF. Because there would not be LMF lead tracks or yard tracks running through BNSF's existing container parking areas, Shared Passenger Track Alternative B would displace slightly less container parking compared to Shared Passenger Track Alternative A.

The two passenger rail station modifications (Norwalk/Santa Fe Springs and Fullerton) and two Metrolink station relocations (Buena Park and Commerce) would be the same for Shared Passenger Track Alternative B as described for Shared Passenger Track Alternative A.



Sources: Authority 2025; ESRI 2020

Figure 2-22 Shared Passenger Track Alternative B: Hobart Yard

2.2.2.6 State Highway or Local Roadway Modifications

The proposed modifications to roadways for Shared Passenger Track Alternative B would be the same as for Shared Passenger Track Alternative A, described in Section 2.2.1.6, except for the area around the 15th Street LMF site. Note that although the 26th Street LMF would not be included under Shared Passenger Track Alternative B, the realignment of 26th Street would still occur.

At the 15th Street LMF, Shared Passenger Track Alternative B would cross through part of Amtrak's access road to its Eighth Street Yard and through its existing access gate at Eighth Street. The access gate would be shifted to the west, and Amtrak would still be able to use its access road, but it would have to cross the three HSR yard lead tracks at grade to reach the road. The 15th Street LMF would also require the closure of a small portion of 16th Street, and the intersection of 15th Street and 16th Street would be reconfigured as a T-intersection. This portion of 16th Street, which is an existing cul-de-sac, serves the properties that would be acquired for construction of the 15th Street LMF. Refer to Figure 2-20, which depicts the portion of 16th Street that would be closed in green.

2.3 Early Action Projects

As described in the 2023 Project Update Report, the Authority has committed to investing in regionally important early action projects to provide early benefits to transit riders and local communities in Southern California, while laying a solid foundation for implementation of the HSR system. These early investments would be made by the Authority in collaboration with local and regional agencies. The types of projects include grade separations, track enhancements, and improvements at passenger rail stations, which would increase capacity, improve safety and air quality, and provide immediate mobility and reliability benefits for existing freight and passenger rail operations. The potential temporary construction and permanent operational environmental effects associated with these early action projects are included in the total evaluation of the Shared Passenger Track Alternatives. These early action projects may be implemented as standalone projects by other local agencies relying on the environmental analyses and conclusions of the Los Angeles to Anaheim Project Section in advance of the HSR system. The early action projects described below would be the same for both Shared Passenger Track Alternatives.

2.3.1 Grade Separations

The following five new railroad/roadway grade separations would be built as part of buildout of the project section and are identified as early action projects:

- Pioneer Boulevard
- Norwalk Boulevard and Los Nietos Road (considered a single early action project because of the adjacency of the two crossings)
- Cerritos Avenue
- State College Boulevard

The potential temporary construction and permanent operational environmental effects associated with these early action projects are analyzed in site-specific detail and included in the total evaluation of the project. Refer to Section 2.2.1.6 for more information.

2.3.2 Metrolink Station Relocations

Passenger rail currently operates within the LOSSAN Corridor and would continue to do so with the introduction of HSR service. The relocations of the existing Commerce and Buena Park Metrolink Stations are necessary for implementation of either of the Shared Passenger Track Alternatives for reasons described in more detail in Section 2.2.1.5.

Existing transit service to the current Metrolink station locations would need to be modified to serve the relocated Metrolink station locations. Future coordination with Metrolink, Amtrak, and transit service providers would be necessary to determine bus routes and schedules for the relocated Metrolink station locations and to inform final design of bus facilities at and near the

station. Access roads, curb space, and passenger and operations facilities for buses have been included in the footprint in anticipation of this reconfigured service.

2.3.3 Fullerton Metrolink/Amtrak Modifications (Fullerton Interlocker)

The Shared Passenger Track Alternatives would modify the tracks and platforms throughout the Fullerton Metrolink/Amtrak Station, as well as the tracks east to Fullerton Junction, as described in Section 2.2.1.1. However, some of these proposed HSR modifications could be completed as an early action project to support the Metrolink Fullerton Interlocker Project, which is being planned by BNSF in coordination with Metrolink and the Authority. This project is critical to Metrolink's Southern California Optimized Rail Expansion Program and will allow for more frequent and regular service in Southern California. The Authority has incorporated the Fullerton Interlocker Project design as part of HSR's Fullerton/Metrolink Amtrak modifications, based on coordination with BNSF and Metrolink and on the anticipated timelines of the two projects.

If the Fullerton Interlocker Project occurs prior to HSR implementation, the early action project would consist of the same modifications described in Section 2.2.1.3 to the Fullerton Metrolink/Amtrak Station, with one exception. The fourth mainline track on the southern side of the corridor would only extend from east of Highland Avenue to Fullerton Junction because, in the absence of HSR, a fourth mainline track would not be added throughout the entire segment between LAUS and Fullerton Junction. All other modifications would be included: the removal of the southern side platforms, addition of a new center platform over Harbor Boulevard, new pedestrian underpass, and realignment and modifications to Walnut Avenue. If the HSR project is implemented later, the southern track would be extended west past Highland Avenue to connect to the fourth mainline track of the HSR alternatives.

2.3.4 Reconfiguration of Freight Rail Facilities

As discussed in Section 2.2.1.5, the project requires new or modified BNSF facilities to add and electrify tracks in the existing BNSF right-of-way between Los Angeles and Fullerton. The Hobart Yard modifications and Commerce Yard modifications (including the Commerce Flyover) could be implemented as early action projects to allow for improvements to existing Amtrak and Metrolink service in the LOSSAN Corridor.

2.4 Optional High-Speed Rail Station

HSR trains would not stop at the Norwalk/Santa Fe Springs Metrolink Station or Fullerton Metrolink/Amtrak Station under either Shared Passenger Track Alternative A or Shared Passenger Track Alternative B. However, an option for a full-stop HSR station is considered, at either Norwalk/Santa Fe Springs or Fullerton. The inclusion of the HSR station option would require additional elements to support full-stop HSR service, in addition to the modifications described in Section 2.2.1.5. These HSR station elements are described in detail below.

2.4.1 High-Speed Rail Station Option: Norwalk/Santa Fe Springs

If the Norwalk/Santa Fe Springs Metrolink Station HSR Station Option is included, several additional elements would be included along with the station modifications described above for Shared Passenger Track Alternative A. An overview of the HSR station option elements is depicted on Figure 2-23, with the additional HSR station elements highlighted in green. The other elements depicted on Figure 2-23 would be completed as part of Shared Passenger Track Alternative A.

The Norwalk/Santa Fe Springs HSR Station Option would add two more electrified passenger rail tracks, for a total of four tracks through the station. The two tracks described under Section 2.2.1.1, Alignment, would serve the modified Metrolink side platforms; the two tracks added as part of the HSR station option would serve an HSR center platform in between the modified Metrolink side platforms. The HSR platform would be 1,000 feet long and capable of future extension to 1,410 feet.

The HSR station option would also require more parking to be added to serve HSR passengers. Parking and pick-up/drop-off for HSR and Norwalk/Santa Fe Springs Metrolink passengers would

be combined within new surface parking lots. The HSR station option at Norwalk/Santa Fe Springs would provide 640 more parking spaces compared to what Shared Passenger Track Alternative A would otherwise provide, for a total of 1,248 parking spaces. A new access road would be provided from Imperial Highway, along the east side of the site, to the Shoemaker Avenue/Adler Drive intersection, with new signalized intersections.

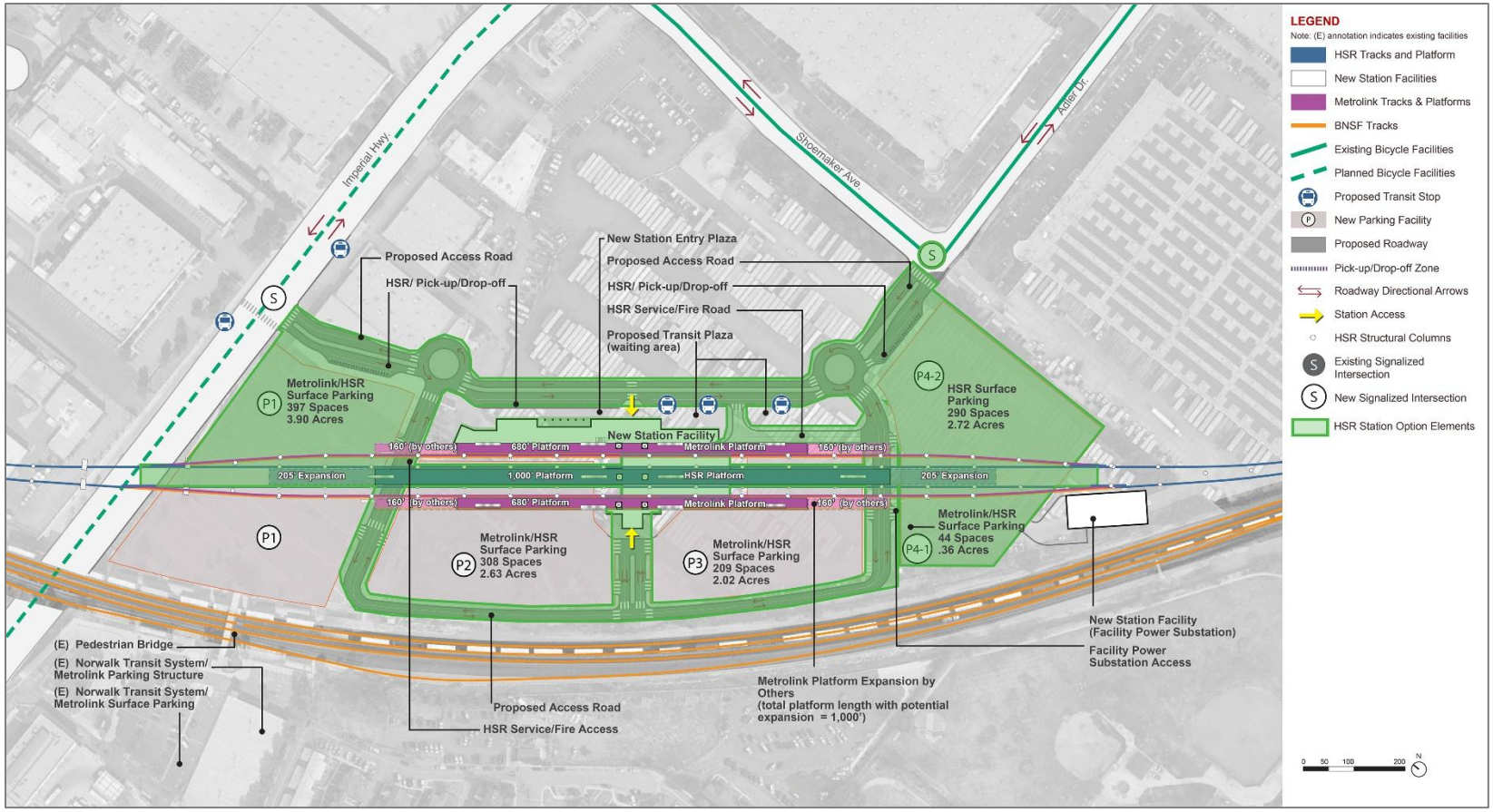
2.4.2 High-Speed Rail Station Option: Fullerton

If the Fullerton HSR Station Option is included, several additional elements would be included along with the station modifications described above for Shared Passenger Track Alternative A. An overview of the HSR station option elements is depicted on Figure 2-24, with the additional HSR station elements highlighted in green. The other elements depicted on Figure 2-24 would be completed as part of Shared Passenger Track Alternative A.

The overall track configuration would be the same as described in Section 2.2.1.1, but the southernmost shared track would be shifted south to accommodate a 1,000-foot HSR platform extending over Highland Avenue. The platform would be 48 inches above the rail on retained fill, at 10 feet at the highest point. A pedestrian ramp would connect the HSR platform to the Metrolink/Amtrak platform.

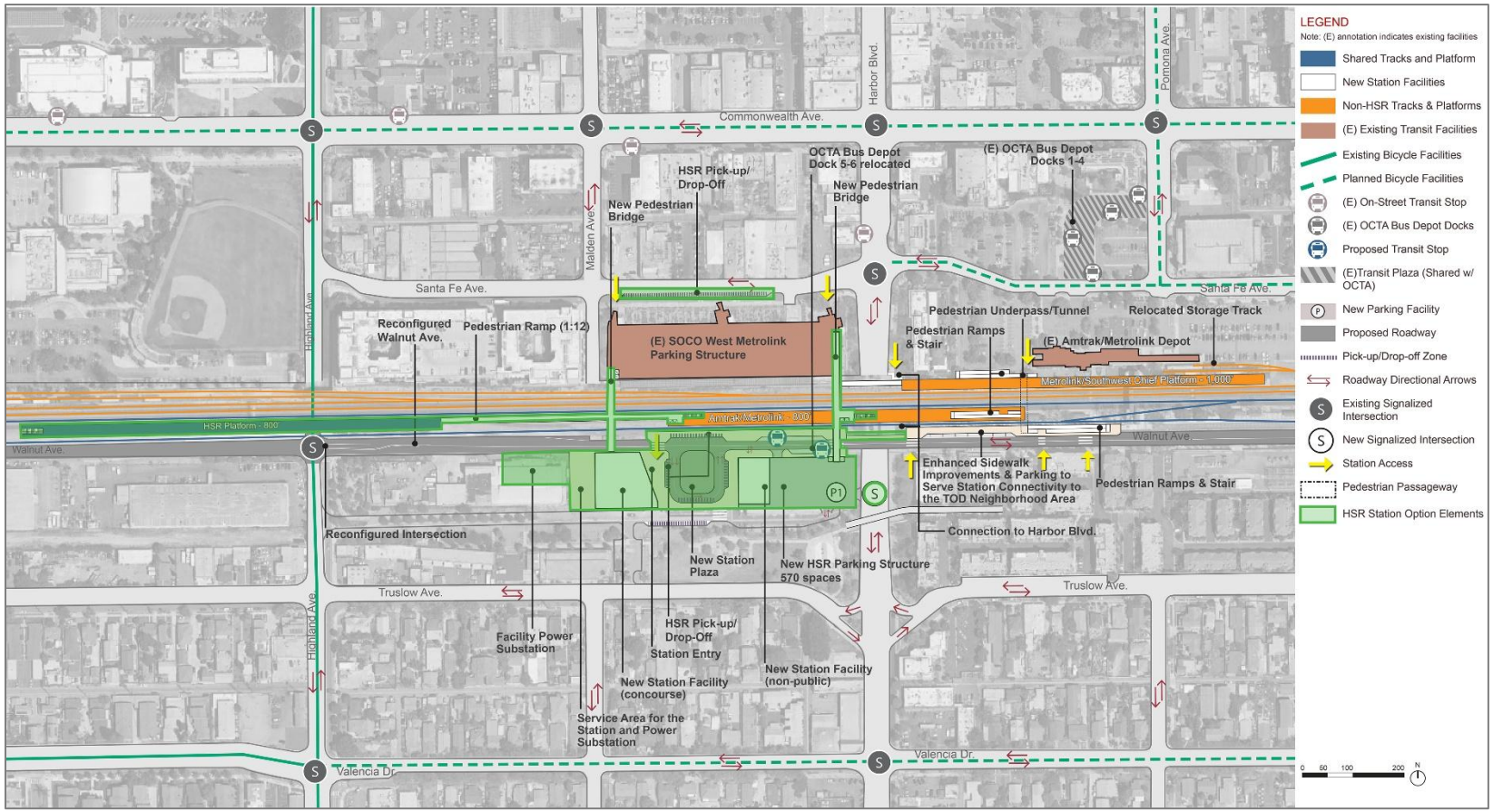
South of Walnut Avenue, the HSR station option would add HSR station buildings, a facility power substation, and a new multilevel parking structure that would provide a total of 570 new HSR parking spaces. The intersection of Highland Avenue and Walnut Avenue would be reconfigured to accommodate the new track and the Highland Avenue railroad bridge, along with improvements for transit stops and pedestrian crossings.

The HSR station option would add two pedestrian bridges: one west of Harbor Boulevard to connect the existing Metrolink parking structure to the HSR parking structure, and another east of Malden Avenue to connect the existing Metrolink parking structure to the HSR station building. A new signalized intersection on Harbor Boulevard would also be required to provide access to the HSR parking garage.



Source: Authority 2025
Future platform extension not included in project definition for the environmental impact report/environmental impact statement.

Figure 2-23 Norwalk/Santa Fe Springs High-Speed Rail Station Option



Source: Authority 2025

Figure 2-24 Fullerton High-Speed Rail Station Option

2.5 Project Construction

For the Los Angeles to Anaheim Project Section of the California HSR System, specific construction elements would include surface and elevated track; track work; grade-separated roadway crossings; and installation of a Positive Train Control system, as summarized in Table 2-7. Construction would take approximately 7.5 to 8 years.

Surface track sections would be built using conventional railroad construction techniques. A typical construction sequence includes clearing, grubbing, grading, and compacting the railbed; applying crushed rock ballast; laying track; and installing electrical and communications systems.

Elevated track sections would use the precast, segmented construction method. In this construction method, large concrete bridge segments are mass-produced at an on-site, temporary casting yard. Precast segments are then elevated atop the already completed portions of the elevated viaduct or embankment, and installed using a special gantry crane positioned on the aerial structure. Although the precast segmental method is the favored technique for aerial structure construction, other methods may be used, including cast-in-place, box girder, or precast, span-by-span techniques.

Preconstruction activities would occur during final design and would include geotechnical investigations, identification of staging areas, initiation of site preparation and demolition, relocation of utilities, and implementation of temporary, long-term, and permanent road closures. Additional studies and investigations to develop construction requirements and worksite traffic control plans would occur as needed.

Major construction activities for the project section would include earthwork and excavation support, systems construction, bridge and aerial structure construction, and railway systems construction (including trackwork, traction electrification, signaling, and communications).

During peak construction periods, work would be under way at several locations along the route simultaneously, with overlapping construction of various project elements. Working hours and the number of workers present at any time would vary depending on the activities being performed.

Table 2-7 Los Angeles to Anaheim Project Section Construction Schedule

Activity	Tasks	Schedule[7]
Right-of-way acquisition	Commencement of right-of-way acquisitions once State Legislature appropriates funds in annual budget, environmental due diligence	Prior to construction
Survey and preconstruction	Location of utilities, establishment of right-of-way and project control points and centerlines, establishment/relocation of survey monuments	Prior to construction
Mobilization	Safety devices and special construction equipment mobilization	Prior to construction
Site preparation	Utilities relocation; clearing/grubbing right-of-way; establishment of detours and haul routes; preparation of construction equipment yards, stockpile materials, and precast concrete segment casting yard	January 2031–January 2034
Earth moving	Excavation and earth support structures	April 2031–October 2036
Construction of road crossings	Surface street modifications, grade separations	July 2031–July 2037

[7] Schedule as of September 2023.

Activity	Tasks	Schedule[7]
Construction of aerial structures	Aerial structure and bridge foundations, substructure, and superstructure	July 2032–July 2036
Construction of underground structures	Straddle bent trench	October 2032–April 2036
Track laying	Includes backfilling operations and drainage facilities	July 2033–December 2037
Systems	Train control systems, OCS, communication system, signaling equipment	October 2035–October 2037
Demobilization	Includes site cleanup	At completion of construction
HSR stations and station relocations	Demolition, site preparation, foundations, structural frame, electrical and mechanical systems, finishes	Commerce Metrolink Station relocation: January 2031–January 2032
		Buena Park Metrolink Station Relocation: January 2034–March 2035
		Norwalk/Santa Fe Springs HSR/Metrolink Station: July 2033–July 2036[1]
		Fullerton HSR/Metrolink Station: January 2033–June 2035[1]
		Anaheim HSR platform and facilities: November October 2034–September 2037

Source: Authority 2024
[1] Construction schedule for Norwalk/Santa Fe Springs and Fullerton Station dependent on station selection.
OCS = overhead contact system; HSR = high-speed rail

2.6 Independent Utility of the Los Angeles to Anaheim Project Section

The Authority and FRA divided the HSR system they established with Tier 1 process into individual project sections for Tier 2 planning, environmental review, and decision making. The FRA, consistent with regulations issued by the Federal Highway Administration, considers three criteria when determining the scope of a project to be considered in an EIS: (1) whether it connects "logical termini" and has "sufficient length to address environmental matters on a broad scope"; (2) whether it has "independent utility or independent significance," meaning that it will "be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made"; and (3) whether it will "restrict consideration of alternatives for other reasonably foreseeable transportation improvements" (23 Code of Federal Regulations Part 771.111(f)). *Logical termini* is defined by the Federal Highway Administration as the rational starting and ending points for a transportation improvement project and for review of the environmental impacts of the project (FHWA 1993).[8] The project section connects logical termini at planned passenger stations where HSR service would be provided, at LAUS to the north and at ARTIC to the south. If other sections of the HSR system are not completed, the infrastructure

[8] The Federal Highway Administration criteria for determining project scope, as established in 23 Code of Federal Regulations Part 771.11(f), do not specifically address the scope of individual projects considered in the second tier of a tiered National Environmental Policy Act process. With the tiered National Environmental Policy Act process, the same general principles apply, but they are applied in the context of the decisions made in Tier 1—in this case, the decision to build the HSR system as a whole. Therefore, in determining the scope of individual project sections for Tier 2 studies, the Authority and FRA focused primarily on determining whether each project section could serve a useful transportation purpose on its own, and ensuring that a decision in one project section does not limit consideration of reasonable alternatives for completing the HSR system in an adjacent section for which the National Environmental Policy Act process has not yet been completed.

could be used by regional and intercity services to improve their capacity, reliability, and performance (Authority 2009).

2.7 Operation of the Los Angeles to Anaheim Project Section

The conceptual HSR service plan for Phase 1 begins with service between Los Angeles/Anaheim running through the Central Valley from Bakersfield to Merced, and traveling northwest into the Bay Area. Subsequent sections in Phase 2 of the HSR system include a southern extension from Los Angeles to San Diego and an extension from Merced to Sacramento, which do not have an anticipated implementation date.

The Shared Passenger Track Alternatives would be within an active passenger and freight rail corridor, which would require a change in operational patterns and frequency for users. Because the project proposes new and realigned tracks throughout the corridor shared by other passenger rail and freight operators, implementation would change the tracks on which the various users operate. Currently, the Metrolink Orange County line and 91 line, Amtrak Pacific Surfliner, BNSF, and UPRR freight trains operate within the project section. The introduction of HSR service between Los Angeles and Anaheim would not conflict with the California State Rail Plan (Caltrans 2023).

Under the Shared Passenger Track Alternatives, there would be up to two HSR passenger trains per hour (peak) in each direction. Up to 10 freight trains per day could operate on the passenger tracks. The Shared Passenger Track Alternatives would maintain current and projected freight train volume within the corridor.

3 LAWS, REGULATIONS, ORDERS

Federal, state, and local laws, regulations, orders, or plans applicable to aesthetics and visual quality in the project section are listed below.

3.1 Federal

3.1.1 National Environmental Policy Act (NEPA) (42 U.S. Code [U.S.C.] 4321 et seq.)

NEPA (42 U.S.C. 4321 et seq.) requires the consideration of potential environmental effects, including potential aesthetic and visual effects, in the evaluation of a proposed federal agency action. NEPA also obligates federal agencies to consider the environmental consequences and costs in their projects and programs as part of the planning process.

3.1.2 U.S. Department of Transportation Act, Section 4(f) (49 U.S.C. 303)

Compliance with Section 4(f) is required for transportation projects undertaken by an operating administration of the U.S. Department of Transportation or that may receive federal funding or discretionary approvals. Section 4(f) protects the natural beauty of publicly owned land of parks, recreational areas, and wildlife refuges, as well as historic sites of national, state, or local significance on public or private land. The Authority may not approve the use of a Section 4(f) property, as defined in Title 49 U.S.C. 303(c), unless it determines that there is no feasible and prudent alternative to avoid the use of the property and the action includes all possible planning to minimize harm resulting from such use, or the project has a *de minimis* effect on the 4(f) property consistent with the requirements of Title 49 U.S.C. 303(d).

3.1.3 Federal Railroad Administration, Procedures for Considering Environmental Impacts (64 *Federal Register* 28545)

On May 26, 1999, the FRA released *Procedures for Considering Environmental Impacts* (FRA 1999). These FRA procedures describe FRA's process for assessing the environmental impacts of actions and legislation proposed by the agency and for the preparation of associated documents (42 U.S.C. 4321 et seq.). The FRA Procedures for Considering Environmental Impacts states, "the EIS should identify any significant changes likely to occur in the natural environment and in the developed environment. The EIS should also discuss the consideration given to design quality, art, and architecture in project planning and development as required by U.S. Department of Transportation Order 5610.4." These FRA procedures state that an EIS should consider possible impacts on aesthetics and visual quality.

3.1.4 National Historic Preservation Act (54 U.S.C. 300101, et seq.)

The National Historic Preservation Act establishes the federal government policy on historic preservation. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. Potential adverse effects include changes in the physical features of the property's setting that contribute to its historic significance, or introduction of visual elements that diminish the integrity of the property's significant historic features.

3.1.5 Federal Land Policy and Management Act—(43 U.S.C. 1701, et seq., 102(a), 103(c), 201(a), 505(a))

The Federal Land Policy and Management Act requires that public lands be managed to protect and minimize damage to scenic and aesthetic values. Under the Federal Land Policy and Management Act, the Bureau of Land Management uses a Visual Resource Management System (113 Stat. 224, Public Law 106-45-A, August 10, 1999) to manage resources under its jurisdiction. As applicable to sections within or affecting areas managed by the Bureau of Land Management, the evaluation of aesthetic and visual quality must consider the rules or guidance under the Visual Resource Management System for the purpose of applying area specific management priorities.

3.2 State

3.2.1 California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Section 15000 et seq.)

CEQA requires state and local agencies to identify the significant environmental impacts of their actions, including potential significant aesthetic and visual impacts, and to avoid or mitigate those impacts when feasible.

3.2.2 State Scenic Highways (California Streets and Highways Code Sections 260 to 263)

The State Scenic Highways Program lists highways that are either eligible for designation as a scenic highway or already are designated as a scenic highway. A highway may be designated as scenic on the basis of the amount of natural landscape that can be observed by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view (Caltrans 2010). The Streets and Highways Code establishes state responsibility for protecting, preserving, and enhancing California's natural scenic beauty of scenic routes and areas that require special scenic conservation and treatment.

No highway within the resource study area (RSA) has been either officially designated, or determined eligible for designation, as a scenic highway.

3.3 Regional and Local

This section focuses on the planning documents that regulate the jurisdictions along the project section. The goals and policies identified specifically address aesthetics and visual quality.

General plans and similar planning documents are the main source of local plans, policies, and regulations for aesthetic issues. A general plan is a comprehensive, long-term planning document that provides goals and policies to guide the future development of a city/jurisdiction. As such, general plans contain land use standards or goals that are important to the community to obtain a desired mix of land uses and to create a desired community landscape. The distribution of land uses is not only important from a land-use perspective, but also from an aesthetic perspective, because inconsistency among land uses can affect the visual quality of an area.

This analysis reviewed the general plans for the cities of Vernon, Commerce, and Montebello and found no goals or policies relating to visual and aesthetic quality (including scenic views/corridors/highways). Therefore, this analysis excludes those general plans from the discussion presented below.

3.3.1 Los Angeles County

3.3.1.1 Los Angeles County 2035 General Plan

The *Los Angeles County 2035 General Plan* (County of Los Angeles 2025) includes a number of key goals relevant to aesthetics and visual quality issues within the RSA. The general plan includes the following policies:

- *Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.*
- *Policy C/NR 13.3: Reduce light trespass, light pollution and other threats to scenic resources.*
- *Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.*
- *Policy C/NR 13.5: Encourage required grading to be compatible with the existing terrain.*

- *Policy C/NR 13.6: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.*

3.3.1.2 LA River Master Plan

The *LA River Master Plan* (County of Los Angeles and Los Angeles County Public Works 2022) seeks to build on prior and current planning efforts to reimagine the Los Angeles River from a single-use corridor to a tangible, multi-benefit resource that connects people, culture, water, open space, and wildlife. Research and analysis for the plan is based on a data-driven watershed and community approach. Relevant goals are:

- *Provide equitable, inclusive, and safe parks, open space, and trails.*
- *Support healthy connected ecosystems.*
- *Enhance opportunities for equitable access to the river corridor.*
- *Foster opportunities for continued community engagement, development, and education.*

3.3.2 County of Orange

3.3.2.1 County of Orange General Plan

The *County of Orange General Plan* (County of Orange 2025) includes a number of key goals relevant to aesthetics and visual quality issues within the RSA. The general plan includes the following goals and policies:

- *Land Use Element, Policy 7: To require new development to be compatible with adjacent areas.*
- *Land Use Element, Policy 9: To guide development so that the quality of the physical environment is enhanced.*
- *Resources Element, Goal 1: Retain the character and natural beauty of the environment through the preservation, conservation, and maintenance of open space.*
- *Resources Element, Policy 1.1: Retain the character and natural beauty of the environment through the preservation, conservation, and maintenance of open space.*
- *Resources Element, Policy 5: To protect the unique variety of significant landforms in Orange County through environmental review procedures and community and corridor planning activities.*
- *Transportation Element, Goal 1: Preserve and enhance unique or special aesthetic and visual resources through sensitive highway design and the regulation of development within the scenic corridor*
- *Transportation Element, Objective 1.1: Protect and enhance the County's beauty, amenities, and quality of life within the unincorporated areas.*

3.3.3 City of Los Angeles

3.3.3.1 General Plan

The *City of Los Angeles General Plan*, Framework Element (City of Los Angeles 2024a) includes key City of Los Angeles General Plan goals, objectives, and policies relevant to aesthetics and visual quality for the RSA. The Land Use-Transit Stations Goal 3K states, "Transit stations to function as a primary focal point of the City's development."

The project section is within three community plan areas—the *Boyle Heights Community Plan*, *Downtown Community Plan*, and *Alameda District Community Plan*—as discussed below.

3.3.3.2 Boyle Heights Community Plan

The *Boyle Heights Community Plan* (City of Los Angeles 2024b) covers approximately 6 square miles bounded by the city of Vernon to the south, the unincorporated community of East Los Angeles to the east, the communities of Lincoln Heights and El Sereno to the north, and the Los Angeles River and downtown to the west. This community plan provides goals, objectives, policies, and implementation programs that pertain to Boyle Heights, with the broader issues, goals, objectives, and policies provided by the *Citywide General Plan Framework*. It includes the following policies:

- *Policy LU 17.4: Incorporate architectural details, building material, and ornamentation that reflect the local context and historic development patterns in Boyle Heights.*
- *Policy LU 22.3: Encourage new development to incorporate public art along building facades and in outdoor areas.*
- *Policy LU 22.4: Grant opportunities to local artists from Boyle Heights when commissioning artwork for both the public realm and private projects.*

3.3.3.3 Downtown Community Plan

The *Downtown Community Plan* (City of Los Angeles 2024c) consists of the Central City Community Plan and Central City North Community Plan. The Central City Community Plan Area encompasses approximately 2,161 acres and is generally bounded on the north by Sunset Boulevard/Cesar Chavez Avenue, on the south by the Santa Monica Freeway (I-10), on the west by the Harbor Freeway (I-110), and on the east by Alameda Street. Immediately to the east of Alameda Street is the Central City North Community Plan Area, which encompasses approximately 2,005 acres and is generally bounded on the north by Stadium Way, Lilac Terrace, and North Broadway, on the south by the city of Vernon, on the west by Alameda Street, and on the east by the Los Angeles River. The Downtown Plan Area is bordered by the communities of Boyle Heights, Silver Lake-Echo Park, Westlake, Southeast and South Los Angeles, and the city of Vernon. This community plan provides goals, objectives, policies, and implementation programs that pertain to the Central City, with the broader issues, goals, objectives, and policies provided by the *Citywide General Plan Framework*. It includes the following policies:

- *Policy LU 11.14: Discourage hostile architecture and other urban design elements that prevent inclusive and equitable use of public space.*
- *Policy LU 15.1 Ensure that where new development occurs, it complements the physical qualities and distinct features of existing historic resources.*
- *Policy LU 15.4: Encourage innovative design that creates the preservation worthy buildings of the future.*
- *Policy PO 8.2: Maintain functional use of the rail facilities, while allowing for bold and innovative design along parcels adjacent to the Los Angeles River (River).*

3.3.3.4 Alameda District Specific Plan

The *Alameda District Specific Plan* (City of Los Angeles 1996) includes the following:

- *Urban Design Guidelines – Residential Projects. Urban Design Guideline 1. Open Space areas between residential buildings and rail facilities shall incorporate extensive visual screening and landscaping as a buffer between the two land uses.*

3.3.3.5 Los Angeles River Revitalization Master Plan

The *Los Angeles River Revitalization Master Plan* (City of Los Angeles 2007) provides a framework for restoring the river's ecological function and transforming it into an amenity for residents and visitors to the city. It includes the following revitalization vision and goals:

- *Chapter 4. Revitalize the River:*
  - *Recommendation #4.11: Ensure public safety by using alternate "greening" techniques in areas where the concrete remains necessary for flood damage prevention.*

    To provide an improved aesthetic environment for the concrete-lined channel in areas where the concrete needs to remain in order to protect life and property from flooding, the Plan advocates drawing on existing City precedents for greening freeway retaining and sound walls with hanging vines.
- *Chapter 5. Green the Neighborhoods. The overall beauty of Los Angeles can become incredibly enhanced through the creation of greener neighborhoods with more open space, trees, and parks…The River Greenway would be linked to an overall network of "green street" connections that extend the River's influence into adjacent neighborhoods and provide safe, non-motorized access between the River and public open space. Further, as the River Greenway system develops, new linkages would be created that strengthen the connectivity between riparian systems along the River, upland habitat in parks and natural open space, and functional habitat in the mountains.*
- *Chapter 6. Capture Community Opportunities. In the past, communities have turned their back on the River, viewing it as an unsafe, unpleasant place that primarily functions to transport storm flows. Constrained by rail lines and freeways, the River has not been visually or physically accessible to most City residents. This Plan's vision calls for transforming the River into a safe, accessible, healthy, green, and celebrated place, with the goal of making the River the focus of activity and helping to foster civic pride. For example, even industrial areas can be converted to new "eco-industrial" parks that improve the living and working environment by providing open space opportunities, access to the River, and cleaner, higher-paying jobs for City residents.*
- *Chapter 7. Create Value. Creating value is the fourth organizing principle of the Plan. Core elements of this principle include the goal of improving the quality of life by increasing the attractiveness of the City and enhancing public health for both residents and visitors as a place to live, work, and visit. A related goal is the creation of environmentally sensitive, sustainable urban design and land use guidelines, such as those encouraging "green buildings," rooftop gardens, and the use of water quality BMPs in street and park design.*

3.3.3.6 Redevelopment Plan for the City Center Redevelopment Project

Project objectives of the *Redevelopment Plan for the City Center Redevelopment Project* (City of Los Angeles 2002) include the following:

- *To create a symbol of pride and identity which gives the Central City a strong image as the major center of the Los Angeles Region.*
- *To achieve excellence in design, based on how the Central City is to be used by people, giving emphasis to parks, green spaces, streetscapes, street trees, and places designed for walking and sitting, and to develop an open space infrastructure that will aid in the creation of a cohesive social fabric.*

- *To develop and implement public art into the urban fabric, integrating art into both public and private developments.*
- *To preserve key landmarks which highlight the history and unique character of the City, blending old and new in an aesthetic realization of change or growth with distinction, and facilitating the adaptive reuse of structures of architectural, historic or cultural merit.*

3.3.4 City of Bell

3.3.4.1 General Plan

The *City of Bell 2030 General Plan*, Land Use and Sustainability Element (City of Bell 2022) includes a number of key objectives and policies relevant to aesthetics and visual quality issues within the RSA. Policy 5 aims to "Encourage a high level of quality in construction and site design features." In addition, Policy 6 aims to "ensure that new development is compatible with style and design of the surrounding environment."

- *Land Use and Sustainability Element Policy 5. The City of Bell shall encourage a high level of quality in construction and site design features. The City shall create and implement specific design guidelines to promote higher quality in construction.*
- *Land Use and Sustainability Element Policy 6. The City of Bell shall promote design and development strategies (landscaping, shared parking, mixed-use development, etc.) to address the strip commercial development found along arterial roadways. The City shall ensure that new development is compatible with style and design of the surrounding environment through new development standards and design guidelines.*

3.3.5 City of Pico Rivera

3.3.5.1 General Plan

The *City of Pico Rivera General Plan*, Land Use Element (City of Pico Rivera 2014) includes a number of key objectives and policies relevant to aesthetics and visual quality issues within the RSA. Goal 3.2 aims to "Enhance key entryways and gateways to the city to create a distinct sense of arrival and identify a central space for civic gathering to promote a positive image and strengthen the identity of Pico Rivera." Policy 3.2-1 focuses on gateway design and improvement, with the purpose of designing "gateway treatments for key entryways into the city that incorporate landscaping, signage, public art, and/or structural elements that communicate a sense of arrival." Goal 3.5 is to "Recognize the importance of the Whittier Narrows Dam, Rio Hondo and San Gabriel River channels in shaping the character, identity and physical structure of the community by protecting and enhancing these features." In support of Goal 3.5, Policy 3.5-1 through Policy 3.5-4 focus on the following areas:

- *Goal 3.2. Enhance key entryways and gateways to the city to create a distinct sense of arrival and identify a central space for civic gathering to promote a positive image and strengthen the identity of Pico Rivera.*
    - *Policy 3.2-1 Gateway Design and Improvement. Create a city-wide entry and wayfinding signage program to create clear entry statements at key gateways to the city, to improve the identification of important destinations throughout the city, to distinguish and brand the city and for beautification. Design gateway treatments for key entryways into the city that incorporate landscaping, signage, public art, and/or structural elements that communicate a sense of arrival.*
- *Goal 3.5 Recognize the importance of the Whittier Narrows Dam, Rio Hondo and San Gabriel River channels in shaping the character, identity and*

physical structure of the community by protecting and enhancing these features.

- *Policy 3.5-1: Trails. Expand bicycle and pedestrian trails, where feasible along the Rio Hondo and San Gabriel River channels.*
- *Policy 3.5-2: Habitat. Identify areas where natural habitats along the Rio Hondo and San Gabriel River channels could be restored.*
- *Policy 3.5-3: Recreation. Identify opportunities for passive recreation areas within and along the Whittier Narrows Dam, Rio Hondo and San Gabriel River channels.*
- *Policy 3.5-4: Open Space and Landscaping. Identify opportunities to provide open space/parks and/or landscaping along the Whittier Narrows Dam, Rio Hondo and San Gabriel River channels that will soften and enhance the edges adjacent to these natural features.*

- *Goal 3.6 Improve the community image by ensuring a consistent level of high quality design and ongoing maintenance and improvement of existing development.*
  - *Policy 3.6-1 Design Guidelines. Ensure a consistent level of high quality design through the development of design guidelines and a design review process for new development. At a minimum, the design guidelines should provide direction on the following:*
    - *Site design*
    - *Building design*
    - *Parking and circulation*
    - *Landscaping*
    - *Services and Accessory Structures*
- *Goal 3.7 Protect and enhance existing residential neighborhoods, assuring that they are safe, attractive, provide quality housing choices and are designed and maintained to enhance livability.*
  - *Policy 3.7-1 Design. Regulate the design and site planning of new development in and adjacent to residential neighborhoods to ensure compatibility between the new development and the existing residential areas.*
  - *Policy 3.7-2 Neighborhood Revitalization. Promote revitalization of neighborhoods in need by maintaining public improvements, encouraging infill development compatible with the scale and character of existing development, and supporting public and private efforts to upgrade and maintain neighborhood appearance and the existing housing stock.*
- *Goal 3.9 A wide range of quality industries that provides job opportunities for Pico Rivera's residents while ensuring compatibility with nearby residential neighborhoods.*
  - *Policy 3.9-1 New Industrial Development. Promote high quality industrial development and redevelopment that is compatible with surrounding uses and enhances the adjacent streetscape.*
  - *Policy 3.9-4 Design and Buffer. Ensure that industrial developments are sited and adequately buffered from surrounding neighborhoods and development to minimize negative impacts such as visual pollution,*

noise, odors, truck activities, and other such conflicts on non-industrial uses.

- *Slauson Avenue Corridor:*
  - *Beautification and Intensification Objectives*
    - *Incorporate appropriate design guidelines for commercial and industrial development to create a more unified theme and encourage higher quality development.*
    - *Renovate existing industrial and commercial development through façade improvements, upgraded landscaping, consistent signage, screening and buffering.*
  - *Mobility and Streetscape Objectives*
    - *Establish a comprehensive streetscape and landscape program that includes right-of-way improvements to street trees, street lighting, streetscape elements (sidewalk/crosswalk paving, street furniture) and public signage.*
    - *Enhance transit stops, shelters and connectivity to corridor uses.*
    - *Strengthen pedestrian linkages to adjacent neighborhoods.*
- *Passons Grade Separation:*
  - *Objectives*
    - *A new linear park should be included in the redevelopment of the vacant parcel north of the rail line.*
    - *The redevelopment of this area should improve the appearance of the edges facing the rail line through landscaping and other buffering and screening treatments.*

3.3.6 City of Santa Fe Springs

3.3.6.1 General Plan

The *Re-Imagine Santa Fe Springs 2040 General Plan*, Land Use Element and Circulation Element (City of Santa Fe Springs 2022) includes a number of key goals relevant to aesthetics and visual quality issues within the RSA. The Land Use Element includes the following policies:

- *Policy LU-1.4: Transit Oriented Development. Develop transit-oriented districts around commuter rail stations to maximize access to transit and create vibrant new neighborhoods.*
- *Policy LU-1.5: Apply appropriate screening, buffers, transitional uses, and other controls to transition from industrial and commercial uses to any adjacent residential uses and thus reduce potential noise and air pollution impacts.*
- *Policy LU-11.1: Signature Design. Require developments along major corridors and at City entries to use distinctive architectural, landscaping, and site design treatments.*
- *Policy LU-11.2: Public Art. Encourage public artwork within public rights of-way, along streetscapes, at gateways, and integrated into private projects in a manner visible to the public and that encourages the City's cultural and historical elements.*

- *Policy LU-11.6: Industrial Design. Insist upon distinctive architecture, landscaping, and shade trees along street frontages and on private property that defines the character of industrial and commercial districts.*
- *Policy LU-11.12 Light Pollution. Minimize light pollution by limiting the amount and type of lighting within new developments.*

The Circulation Element includes a policy relevant to the RSA. Policy C-5.2, Minimize Community Impacts, states, "Investigate means to establish buffers such as walls, landscape screening, and/or barriers along truck, rail, and freeway routes and adjacent to rail yards to minimize noise, vibration, and aesthetics impacts."

3.3.6.2 Adopted Specific Plan for the Development of the Waste Disposal, Inc. Site Specific Plan

The City of Santa Fe Springs *Adopted Specific Plan for the Development of the Waste Disposal, Inc. Site* (City of Santa Fe Springs 2020), which is within the RSA, includes the following:

- *Statement of Purpose. The implementation of this Specific Plan will lead to the redevelopment and reuse of the Site, assure environmental safety on the project site, improve the visual atmosphere and function of the immediate, and ensure that any future development will ultimately enhance the community of Santa Fe Springs and the surrounding area.*
- *Development Standards. Perimeter Landscaping. In order to enhance the overall character of the City and to provide additional open space, the Planning Commission has instituted an "urban forest" requirement on all new developments. The urban forest provides raised, meandering, and undulating sidewalks around the perimeters of properties in areas facing city streets. Appropriate street trees and raised lawns shall be planted along the rights-of-way. In addition, to further encourage the use of the areas as a form of open space, benches and trash receptacles should be placed intermittently near the walkways.*

3.3.7 City of Norwalk

3.3.7.1 General Plan

Vision Norwalk – The City of Norwalk General Plan, Land Use Element and Community Design Element (City of Norwalk 2023) include a number of key objectives and policies relevant to aesthetics and visual quality issues within the RSA.

The Land Use Element contains the following policies:

- *Encourage developments to be well located and functionally integrated with adjacent transit facilities.*
- *Encourage the maintenance and enhancement of areas important to the creation of a positive image for Norwalk.*

The Community Design Element establishes, in a broad context, urban design, architecture, and the overall appearance of the city, as well as various issues related to residential, commercial, industrial, and public facility and right-of-way design (City of Norwalk 2023).

The Community Design Element contains the following policies:

- *New residential, commercial, industrial, and public facility and right-of-way developments should be reviewed to determine consistency and compatibility with the surrounding neighborhood, district, and overall community.*
- *Capital Improvements, including public right-of-way improvements, will be designed to define neighborhoods, districts, gateways, and a hierarchy of streets.*

The City of Norwalk adopted the City Center Area Plan of *Vision Norwalk – The City of Norwalk General Plan* in 1996 and updated it most recently in 2023. The City Center Area Plan contains the following objectives and policies:

- *Consider the establishment of urban design guidelines, which will provide for an aesthetically pleasing, pedestrian-friendly, and economically viable business core and which will encourage uses which are mutually supportive.*
- *Encourage complementary and appropriate land uses adjacent to public transportation stations and routes.*
- *Promote regulations and standards which encourage developments to be functionally integrated with adjacent transportation facilities and networks.*
- *Support the preservation of historic structures and places.*
- *Consider the establishment of a Landscape Plan for all rights-of-way in the City Center, pedestrian walkways, and open space areas, which will support the purpose and intent of the Specific Plan.*

3.3.7.2 Specific Plan Area No. 1

Specific Plan[9] *Area No. 1* (City of Norwalk 1996a) includes the following area development objectives and policies:

- *To assure the development is substantial with highly desirable characteristics and attributes of excellence of design and execution in order to promote a quality civic image.*
- *To provide a highly attractive, stimulating, and innovative living environment that will tend to stimulate the surrounding area and improve the development characteristics of the area.*
- *To minimize any potential adverse impacts on surrounding residential areas, especially as they relate to visual, aesthetic and traffic effects.*
- *To allow for imaginative and qualitative site planning and architectural design creating a unique and individual character within the development, and contributing to the overall enhancement of the City Centre environment.*
- *Special attention shall be given to the provision for substantial visual and acoustic buffering between the development and adjacent residential areas.*

3.3.7.3 Specific Plan Area No. 8

Specific Plan Area No. 8 (City of Norwalk 1996b) includes the following area development objectives and policies:

- *To assure the development is substantial with highly desirable characteristics, and attributes of excellence of design and execution in order to promote a quality civic image.*
- *To minimize any potential adverse impacts on surrounding residential areas, especially as they relate to visual, aesthetic and traffic effects.*

[9] The purpose of the specific plan areas within the city of Norwalk is to facilitate the systematic implementation of the general plan and to serve as a basis for review of more detailed plans. It is intended to establish a pattern for the appropriate design, arrangement, and relationship of buildings, open space, circulation, land use, and other features as necessary to coordinate development and achieve a functionally and visually integrated development. It is also intended to ensure adequate design and controls to mitigate factors such as noise, vibration, dust, odors, and visual features detrimental to the project and its users and tenants or to nearby residents. It is intended to capitalize upon certain special qualities and opportunities of a designated area while permitting a degree of flexibility favorable to unique and imaginative designs. It is further intended to encourage and promote a high quality of design and environment.

- *To allow for imaginative and qualitative site planning and architectural design, which will contribute to the overall enhancement of the Civic Center environment.*
- *Special attention shall be given to the provision for substantial visual and acoustic buffering between the development and adjacent residential areas.*

3.3.7.4 Specific Plan Area No. 9

Specific Plan Area No. 9 (City of Norwalk 1996c) includes the following area development objectives and policies:

- *Provide a highly attractive, stimulating, and innovative living environment that will tend to stimulate the surrounding area and improve the development characteristics of the area.*
- *Landscaping, fencing, roof materials, and architectural design shall be integrated to provide an appearance of outstanding visual quality to adjacent residential and commercial properties and to motorists and pedestrians on the bounding arterial street.*

3.3.7.5 Specific Plan Area No. 11

Specific Plan Area No. 11 (City of Norwalk 1996d) includes the following area development objectives and policies:

- *Provide a highly attractive, stimulating, and innovative living environment that will tend to stimulate the surrounding area and improve the development characteristics of the area.*
- *Landscaping, fencing, roof materials, and architectural design shall be integrated to provide an appearance of outstanding visual quality to adjacent residential and commercial properties and to motorists and pedestrians on the bounding arterial street.*

3.3.8 City of La Mirada

3.3.8.1 City of La Mirada General Plan

The *City of La Mirada General Plan*, Land Use Element and Circulation Element (City of La Mirada 2003) includes a number of key goals and policies relevant to aesthetics and visual quality issues within the RSA and contains the following goals and policies:

- *Land Use Element Goal 6.0: Achieve aesthetic enhancements citywide to distinguish La Mirada*
- *Circulation Element Policy 5.2: Protect the public's assets and community aesthetics against unmitigated impacts of above-ground telecommunications infrastructure development.*

3.3.9 City of Buena Park

3.3.9.1 City of Buena Park General Plan

The *Buena Park 2035 General Plan* (City of Buena Park 2022) includes a number of key objectives and policies relevant to aesthetics and visual quality issues within the RSA. Goal LU-3 strives for "effective management of growth and change." In support of this goal, Policy LU-3.1 aims to "ensure that development activities acknowledge the protection and enhancement of quality of life in the City's neighborhoods." Goal LU-15 aims for "land uses that are connected and coordinated with existing and future transportation facilities." Policy LU-15.1 would "promote convenient and attractive pedestrian linkages across and along streets."

Goal LU-21 aims for “distinctive and attractive design of the public realm that promotes a positive image and identity.” Policy LU-21.1-Policy LU-21.4 were developed in support of Goal LU-21:

- *Policy LU-21.1: Focus on improving the appearance of corridors in the City by implementing landscaping, enhanced paving, unique streetscape amenities, appropriately-scaled lighting, and placement of utility connections underground.*
- *Policy LU-21.2: Support the development of a comprehensive gateway program, including a hierarchy of entry monuments and wayfinding signage throughout the City.*
- *Policy LU-21.3: Support landscaping treatments that complement a comprehensive streetscape program and that maximize water conservation through plant species and irrigation techniques.*
- *Policy LU-21.4: Strive to develop a system of key landmarks that contribute to the character and image of the City, and encourage new buildings and/or monuments to function as neighborhood or district markers.*

Goal LU-22 strives for “new development and redevelopment that contributes to a positive visual image of the City.” Policy LU-22.1 would support development in focus areas that encourages a mix of land uses, central gathering spaces, walkable streets, interesting architecture, and public art. Policy LU-22.2 would promote good quality design that considers site and building scale and mass that enhances the experience of employees and customers. Lastly, Goal LU-23 strives for "new development and redevelopment that fosters social interaction, connectivity, and sense of place.” Policy LU-23.1 would “encourage connectivity between focus areas, nodes, and neighborhoods through visually-interesting and logical networks of paths that provide access for pedestrians, bicyclists, motorists, and transit patrons.”

3.3.9.2 Amendment 2007 to the Merged, Amended and Restated Redevelopment Plan for the Buena Park Consolidated Project Area

Amendment 2007 to the Merged, Amended and Restated Redevelopment Plan for the Buena Park Consolidated Project Area (City of Buena Park 2007) includes the following goals:

- *4. Encouragement of modern, integrated, and diverse development with high concern for architectural, landscape, and urban design character.*
- *11. Development of distinct commercial districts with a consistent image and character, which relate positively to adjacent land uses.*
- *14. Expanded open spaces for recreational uses and the preservation of views, natural character, and topography.*

In addition to the goals listed for the Consolidated Project Area, implementation of this Amended Plan seeks to reach specific goals for Project Area I/Central Business District [CBD]:

- *1. Preservation and enhancement of the varied and distinctive character of the Central Business District, as well as the promotion of the CBD as a cultural center.*

3.3.10 City of Fullerton

3.3.10.1 General Plan

The Community Development and Design Element and Resource Management Element of *The Fullerton Plan* (City of Fullerton 2025) include a number of key goals and policies relevant to aesthetics and visual quality issues within the RSA. The *Fullerton Plan* is organized into four Master Elements and within each Master Element is the specific Element. The general plan contains the following goals and policies:

Master Element A: The Fullerton Built Environment, Chapter 1: Community Development and Design Element

- *P1.2 Subregional Coordination: Support projects, programs and policies to promote compatibility and mutually beneficial built environments and land uses with adjacent jurisdictions and other agencies.*
- *P1.3 Protection and Restoration of Natural Resources: Support projects, programs, policies and regulations to protect, and where appropriate restore, the natural landscape, topography, drainage ways, habitat, and other natural resources when planning improvements to existing and new neighborhoods and districts.*
- *P1.11 Compatibility of Design and Uses: Support programs, policies and regulations to consider the immediate and surrounding contexts of projects to promote positive design relationships and use compatibility with adjacent built environments and land uses, including the public realm.*
- *P2.3 Distinctive Landmarks: Support projects, programs, policies and regulations to preserve existing landmarks and encourage the creation of new landmarks that reinforce Fullerton's identity and image.*
- *P2.4 Sense of Place: Support projects, programs, policies and regulations to reinforce the character and sense of place of established neighborhoods and districts by preserving and enhancing the attributes which contribute to neighborhood and district identity, vitality and livability.*

3.3.10.2 Fullerton Transit Village Specific Plan

The *Fullerton Transit Village Specific Plan* (City of Fullerton 2004a) provides the following design guidelines:

- *Site Planning. The overall community design concept for the Fullerton Transit Village at Fullerton is that of a pedestrian-friendly transit oriented lifestyle that reflects the eclectic, urban nature of the elements surrounding the site.*
- *Architectural Character. The historic structures provide the inspiration for the architectural character of the project. The Fullerton Train Depot, located to the north of the site, across the railroad tracks, is a Spanish Colonial style structure built in 1930. The Crystal Ice House, a brick commercial structure constructed in 1910, is directly adjacent to the northwest portion of the site. The proposed residences will represent interpretations of both the Industrial and Spanish Colonial styles, thereby reflecting the historic architectural diversity of the surrounding neighborhood.*
- *Landscape Architecture. The community landscape concept is intended to create a distinctive, diverse environment that will lend identity and character to the Specific Plan area.*

3.3.10.3 Fullerton Municipal Airport Master Plan Update

Because a portion of the alignment would occur adjacent to the Fullerton Municipal Airport, the *Fullerton Municipal Airport Master Plan Update* (City of Fullerton 2004b) is relevant to the Shared Passenger Track Alternatives. The *Fullerton Municipal Airport Master Plan Update* (p. 5-12) states that for Runway Protection Zones there is a "right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property."

3.3.11 City of Anaheim

3.3.11.1 General Plan

A portion of the alignment would travel through the City of Anaheim. Table 3-1 lists goals and policies from the *City of Anaheim General Plan* (City of Anaheim 2025) relevant to the aesthetics of the Shared Passenger Track Alternatives.

Table 3-1 City of Anaheim General Plan Goals and Policies

Goal/Policy	Text
Land Use Element	
Goal 1.1	"Preserve and enhance the quality and character of Anaheim's mosaic of unique neighborhoods."
Policy 2	"Ensure that new development is designed in a manner that preserves the quality of life in existing neighborhoods."
Goal 3.1	"Pursue land uses along major corridors that enhance the City's image and stimulate appropriate development at strategic locations."
Policy 3	"Ensure quality development along corridors through adherence to established development standards and Community Design Element goals, policies and guidelines."
Policy 4	"Continue to pursue additional open space, recreation, and landscaping amenities along major transportation routes."
Goal 4.1	"Promote development that integrates with and minimizes impacts to surrounding land uses."
Policy 1	"Ensure that land uses develop in accordance with the Land Use Plan and Zoning Code in an effort to attain land use compatibility."
Policy 2	"Promote compatible development through adherence to Community Design Element policies and guidelines."
Policy 3	"Ensure that developers consider and address project impacts upon surrounding neighborhoods during the design and development process."
Policy 4	"Require new or expanded uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur."
Policy 6	"Require landscape and/or open space buffers to maintain a natural edge for proposed private development directly adjacent to natural, public open space areas."
Green Element	
Goal 2.1	"Preserve views of ridgelines, natural open space and other scenic vistas wherever possible." Under this goal,
Policy 2	"Encourage development that preserves natural contours and views of existing backdrop ridgelines or prominent views."
Goal 11.1	"Encourage land planning and urban design that support alternatives to the private automobile such as mixed-use, provision of pedestrian and bicycle amenities, and transit-oriented development."
Policy 7	"Provide everyday opportunities to connect with nature through the promotion of trails, bicycle routes, and habitat friendly landscaping."
Goal 14.3	"Ensure that future development near regional open space resources will be sensitively integrated into surrounding sensitive habitat areas."
Policy 1	"Require new development to mitigate light and glare impacts on surrounding sensitive habitat and open space areas, where appropriate."

Goal/Policy	Text
Goal 23.2	"Complete the City's comprehensive program of corridor landscaping, including entryways, medians, and parkways, to strengthen the identity of major corridors and the City as a whole."
Policy 2	"Adopt landscape themes that give special identity to each corridor and reinforce the City's overall image."
Policy 3	"Develop specialized landscape and design treatment for key entryways, intersections and powerline easements identified on the Green Plan, in accordance with the Community Design Element."
Community Design Element	
Goal 1.1	"Create an aesthetically pleasing and unified community appearance within the context of districts and neighborhoods."
Policy 1	"Continue to designate and provide monumentation for important primary and secondary entry points into the City, especially along major corridors."
Policy 4	"Pursue unifying streetscape elements for major corridors, including coordinated streetlights, landscaping, public signage and street furniture, to reinforce Anaheim's community image."
Policy 5	"Identify and preserve/enhance view corridors for major landmarks, community facilities, and natural open space in the planning and design of all public and private projects."
Policy 7	"Screen public and private facilities and aboveground infrastructure support structures and equipment, such as electrical substations, and water wells and recharge facilities, with appropriately scaled landscaping or other methods of screening."
Policy 8	"Construct public and private facilities and support structures (e.g., water pipes, irrigation and electrical controls, vents) to blend with the surrounding environment."
Policy 9	"Minimize visual impacts of public and private facilities and support structures through sensitive site design and construction. This includes, but is not limited to: appropriate placement of facilities; undergrounding, where possible; and aesthetic design (e.g., cell tower stealthing)."
Goal 2.1	"Attractively landscape and maintain Anaheim's major arterial corridors and prepare/implement distinctive streetscape improvement plans."
Policy 3	"Continue to underground overhead utility lines along the City's arterial corridors."
Policy 4	"Ensure adherence to sign regulations, which address issues of scale, type, design, materials, placement, compatibility, and maintenance for uses along freeways, toll roads and major arterial corridors."
Goal 10.1	"Anaheim sign guidelines address distinctive, appropriately scaled and/or coordinated signs throughout commercial, industrial and mixed-use areas."
Policy 2	"Where freestanding signs are necessary, they should be designed in a vertical format with consistent lettering, color and style, capturing the architectural theme of the commercial area of which they are a part."
Policy 4	"Encourage high-quality signage, including wall signs, raised letter signs, projecting, double-faced signs, and customized logos."
Policy 5	"Encourage signs that complement the architecture of the building without dominating it."
Goal 11.1	"Architecture in Anaheim has diversity and creativity of design and is consistent with the immediate surroundings."
Policy 1	"In areas of diverse character, encourages project design that represents architectural elements of the neighborhood or surrounding commercial areas."

Goal/Policy	Text
Policy 2	"Encourage architectural designs that are visually stimulating and varied, yet tasteful, containing rich contrasts and distinctive architectural elements."
Goal 12.1	"Opportunities to expand the Art in Public Places program to include all areas of the City will be explored, thereby enriching public places and strengthening the City's identity."
Policy 1	"Continue and expand the Arts in Public Places program by selecting suitable sites throughout the City that would benefit from the inclusion of public art."

Source: City of Anaheim 2025

3.3.11.2 Platinum Triangle Master Land Use Plan (City of Anaheim)

The *Platinum Triangle Master Land Use Plan* (City of Anaheim 2017) provides design guidelines and goals for the area surrounding Angel Stadium of Anaheim and the Honda Center of Anaheim as follows:

- *Principle 2.1.1, Balance and Integrate Uses. In order to maximize long-term property value, the Platinum Triangle will not only provide new balanced development opportunities for office, residential and sports/entertainment and allow for existing industrial uses to continue, but link the various uses together with walkable streets, open space and consistent landscape. Regardless of market strengths for any one use at a given time, the opportunity and value for all uses will be enhanced by a supportive, integrated and multi-use district approach.*
- *Principle 2.1.3, Create a unique, integrated, walkable urban environment. To achieve the potential of the Platinum Triangle in terms of quality of life and land value, a vibrant, walkable urban environment is required. Comfortable walking environments linking jobs, attractive housing, open space and local services, while reducing the need to drive, are attributes that require guidance and facilitation. It will be essential that each new project make a contribution toward this new urban quality and character.*
- *Principle 2.2.4, Create a street/ground floor zone that is attractive, safe, and engaging. Great urban neighborhoods have attractive, safe and interesting streets that are enjoyable to experience as both a pedestrian and driver. Such streets require quality ground floor architectural treatments, consistent setbacks, landscape and sufficient interaction with the adjacent uses, so that a sense of community and security is achieved. On the arterial streets this will be achieved through landscape, street trees, entries, patios and attractive architecture. On the connector streets, individual dwelling entries and stoops will enhance the pedestrian experience. Setbacks have been established that provide a balance between full utilization of the site for development and creating sufficient room for landscape. The setbacks are the narrowest on the connector streets with lower traffic volumes, encouraging a more intimate, and human-scale street space. The major intersections within the Platinum Triangle will be framed by landmark architecture that lets visitors know they have arrived at a major destination.*
- *Principle 3.2, Stadium District Development Principles. Provide an internal, pedestrian-scale "promenade" street that allows walkable access to the transit stations and links the transit oriented development to the adjacent districts. Provide attractive urban streets lined with active ground floor uses and a scale of street width and building placement that creates security and a comfortable human scale, and that energizes ground floor retail and entertainment uses.*

3.3.11.3 The Anaheim Colony: Vision, Principles and Design Guidelines

The *Anaheim Colony: Vision, Principles and Design Guidelines* (City of Anaheim 2003) provides the following guiding principles:

- *Guiding Principle 1: The Colony is Anaheim's historic and cultural center.*
- *Guiding Principle 5: The Colony's commercial streets have strong, unifying historical design themes. Visual continuity is created through similarities in scale, height, signage, massing, street furniture, and landscaping.*
- *Guiding Principle 6: The Colony's public spaces provide quality gathering places, comfort and focal points.*
- *Guiding Principle 7: New development within the Colony respects the historic context.*
- *Guiding Principle 8: Certain areas outside the boundaries of the Anaheim Colony Historic District should be considered zones of influence of the historic district and subject to its design guidelines.*
- *Public Landscaping 8: The historic boundaries of the original Colony should be delineated with distinctive tree and hedge planting. Tree selection should emphasize the vertical orientation of the original Colony fences.*
- *Streetscape 1: Along beautiful commercial streets, all the elements – buildings, signs, landscaping and street furniture – should work together to create a unified and coherent visual identity and public space.*
- *Streetscape 3: Streetscapes provide visual interest, continuity and identity and should include a consistent a consistent blend of themed street furniture, consisting of streetlights, banners, benches, bollards, newsracks, bus stops and trash receptacle.*

3.3.12 City of Orange

3.3.12.1 Orange General Plan

A portion of the RSA would extend into the city of Orange. Table 3-2 lists goals and policies from the *Orange General Plan*, Land Use Element, Natural Resources Element, and Urban Design Element relevant to the aesthetics of the Shared Passenger Track Alternatives.

Table 3-2 City of Orange General Plan Goals and Policies

Goal/Policy	Text
Land Use Element	
Policy 1.5	Prioritize recreation and open space uses at Irvine Lake and protect historic visual resources in east Orange.
Policy 3.3	Improve vehicular, pedestrian, and visual connections between commercial areas and the rest of the community.
Policy 7.5	Work with and encourage other agencies and service providers to minimize potential visual and environmental impacts of their facilities on Orange.
Other	The Open Space Ridgeline designation is designed to preserve visually significant ridgelines and steep hillsides. The City has adopted a hillside grading policy that prohibits development or grading on ridgelines with this designated land use.
Natural Resources Element	
Goal 7.0	Protect significant view corridors, open space, and ridgelines within the urban environment.

Goal/Policy	Text
Policy 7.1	Preserve the scenic nature of significant ridgelines visible throughout the community.
Policy 7.2	Designate Santiago Canyon Road east of Jamboree Road as a City Scenic Highway to preserve the scenic nature of the open space adjacent to the road.
Policy 7.3	Encourage the development of landscaped medians and parkway landscaping along arterial streets in public and private projects, and encourage the state to provide freeway landscaping.
Policy 7.5	Encourage the retention and enhancement of scenic corridors and visual focal points within the community.
Urban Design Element	
Goal 1.0	Promote streetscapes that enhance the economic vitality and overall visual quality of commercial corridors, support the circulation network, and support pedestrian-scale streets and patterns of activity.
Policy 1.1	Enhance the streetscape along the City's major commercial corridors and other major streets through coordinated public and private improvements to convey a positive image of the district, contribute to its economic vitality and perception of the City, and improve visual and physical transitions into adjacent neighborhoods. Streetscape designs should include wide sidewalks to accommodate unified landscaping, trees, lighting, paving, street furniture, and other public improvements appropriate to the scale of the streets.
Policy 1.3	Ensure that streetscape improvements provide for an environment that offers a pleasant experience for motorists, pedestrians, and transit riders.
Policy 1.4	Coordinate with local utility providers to identify priority areas for undergrounding or relocation of overhead electrical and telephone/cable wires to remove visual clutter of existing infrastructure.

Source: City of Orange 2025

4 METHODS FOR EVALUATING EFFECTS

This section defines the RSA for aesthetics and visual quality and describes the methodology for effects analysis as well as the specific assessment method used in this technical report.

4.1 Definition of Resource Study Area

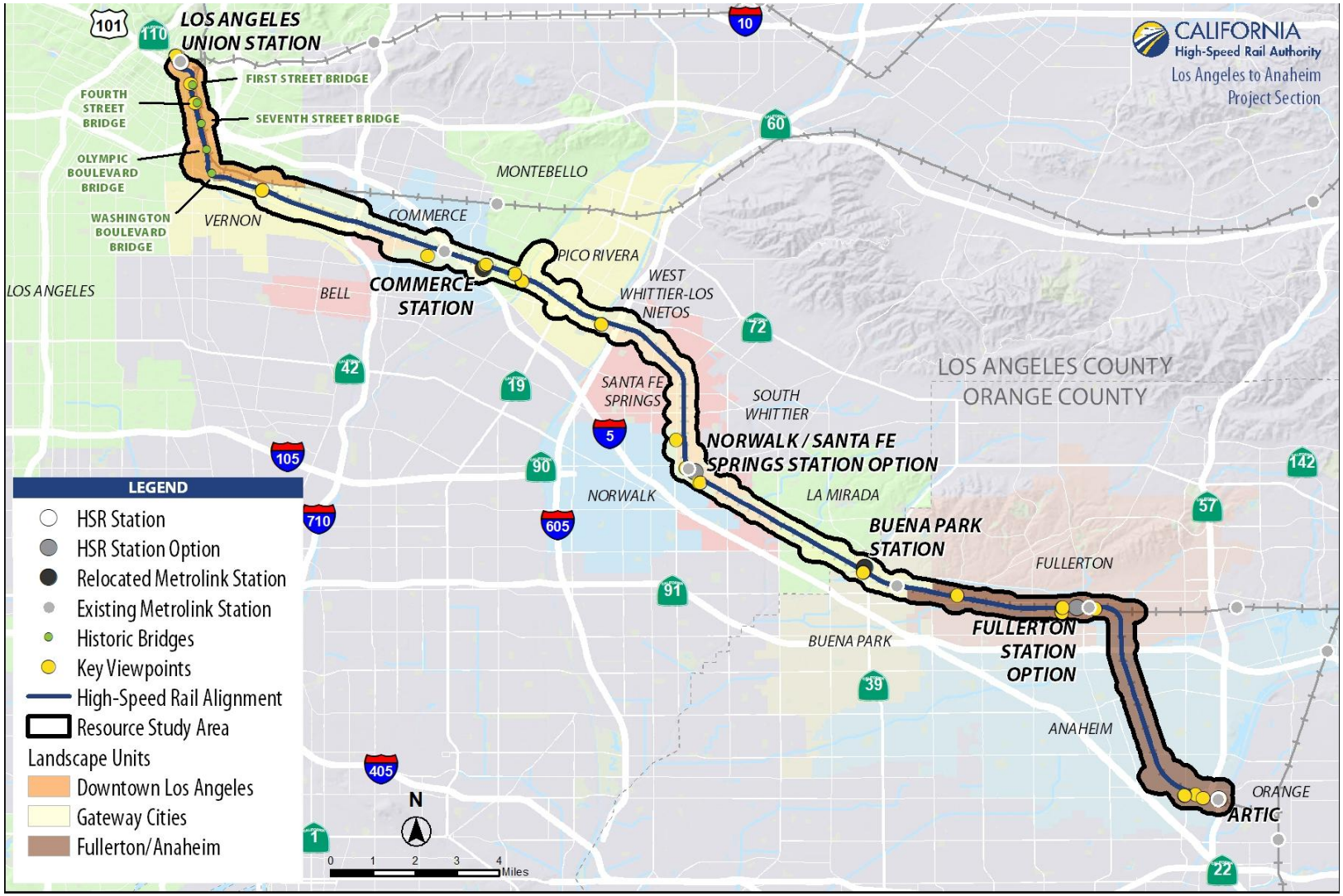
The RSA[10] is the study area for environmental investigations specific to aesthetic and visual resources. The RSA takes into account the visual effects of the project section improvements and operations in relation to existing visual quality and character, scenic resources, and types of viewers. In defining the RSA, distance zones are largely determined by the extent to which the project is visible. For direct effects on aesthetics and visual quality in urban environments, the RSA is at least the project footprint plus 0.25 mile or 0.50 mile, depending on the visibility of the project components, and taking into account the area's landform (topography), land cover (vegetation and structures), and atmospheric conditions (dust, fog, precipitation) that can limit human sight. In agricultural and other open areas, the corridor could be visible over extensive areas because of the general scarcity of buildings and tall vegetation that could block views. In these areas, the foreground of the RSA is considered to be areas within 0.50 mile of the alignment footprint, because this would represent the area of highest visual concern. In urbanized areas, project visibility is often more restricted by the presence of buildings and tall vegetation. Therefore, the foreground of the RSA in urbanized areas would generally be considered to be within 0.25 mile of the alignment footprint. Visual resources identified in the RSA include public parks, recreation areas, and historic sites potentially subject to Section 4(f) and Section 106 effects, as described further in Chapter 5, Affected Environment. For this section, the RSA is one distinct study area with a fixed buffer extending 0.25 mile from the project footprint, as illustrated on Figure 4-1. The RSA is further broken down into landscape units. Landscape units are used to "break up" long, linear projects into logical geographic entities for which impacts from a proposed project can be assessed and can be conceived of as a spatially defined landscape with a particular visual identity—a distinctive "outdoor room" (FHWA 2015). Refer to Section 4.2.2, Landscape Units, for further information.

The RSA for direct impacts on aesthetics and visual quality in urban environments is at least the footprint, which accounts for the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. This accounts for the area's landform (topography), land cover (vegetation and structures), and atmospheric conditions (dust, fog, precipitation), which can limit human sight.

Considering the anticipated scale of the project and the urban environment of the project section, the zone of highest visual concern is not generally expected to extend beyond a foreground distance of 0.25 mile from the project footprint. Beyond foreground viewing distances of 0.25 mile, the project would have a limited visual presence. However, there would be areas in which the project would be elevated on berms or low structures and may be visible beyond the 0.25-mile buffer around the footprint. In addition, locations in which views of project elements may be visible at distances greater than 0.25 mile include specific "view corridors" along major arterials, channels or rivers, freeways, and railways or other transportation corridors. These are addressed in this analysis as appropriate. Although there are instances in which visual effects would be experienced outside of the 0.25-mile RSA, the RSA distance is appropriate, because buildings, tall vegetation, and other intervening development would largely block farther views.

Where project elements within the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units would be elevated on berms or structures, the potential increased visibility of the project section was evaluated in highly site-specific ways. In addition, views of the alignments from specific "view corridors" along major arterials, channels or rivers, freeways, railways, or other transportation corridors were also addressed as appropriate throughout the analysis and were considered in the selection of representative key viewpoints (KVP) along the proposed alignment.

[10] The RSA for aesthetics and visual quality is the same as the area of visual effect, as defined in FHWA's Guidelines for the Visual Impact Assessment of Highway Projects (FHWA HEP-15-029).

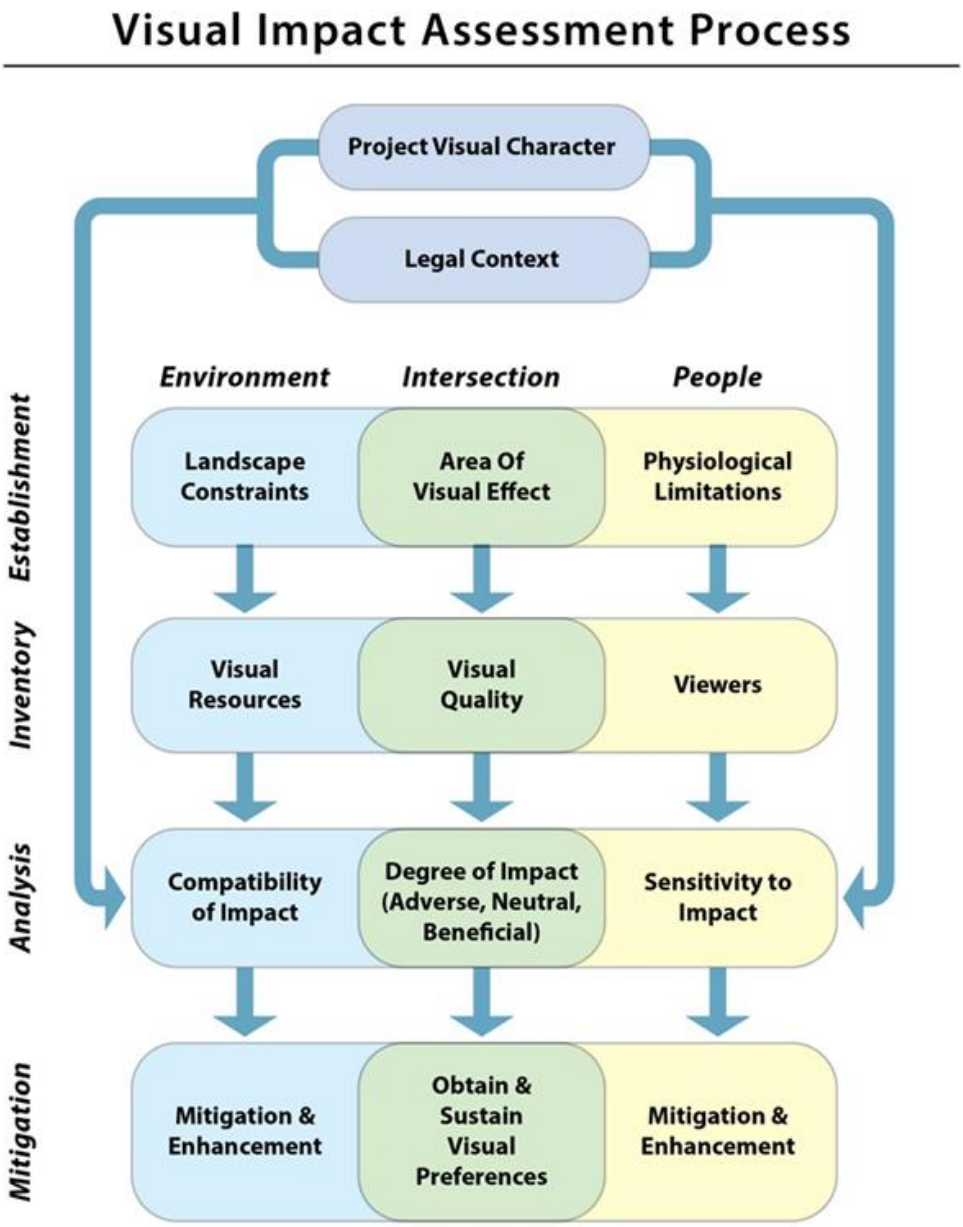


Sources: ESRI 2024

Figure 4-1 Resource Study Area

4.2 Methodology for Analysis of Visual Effects

The methodology used in this technical report to evaluate aesthetic and visual quality effects is based on the *Project Environmental Impact Report/Environmental Impact Statement Environmental Methodology Guidelines,* Version 5.11 (Authority 2022) as amended as well as the *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA Guidelines), published by FHWA (FHWA 2015). The FHWA Guidelines (2015) include four phases: *Establishment*, *Inventory*, *Analysis*, and *Mitigation*. Figure 4-2 depicts the visual effects assessment process and the intersection of the physical environment with people's perceptions of that environment, as presented in the FHWA Guidelines.



Source: FHWA 2015

Figure 4-2 Federal Highway Administration Visual Impact Assessment Process Flow Diagram

The first step in the visual impact assessment process is to establish the RSA and its landscape unit(s) based on the project characteristics and the physical environment limits on visibility. The RSA is established in Section 4.1, Definition of Resource Study Area. The three landscape units that have been identified for the project section are Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim, as described further in Chapter 5. In addition, 22 KVPs were established to provide representative examples of existing views of the landscape, as seen by viewer groups within each landscape unit.[11] Their locations are mapped on Figure 4-3 and are described further in Chapter 5. KVPs are also used to illustrate how the project section would change these views, as described in Section 6.3, Project Impacts.

The second step is an inventory of specific visual resources, viewer groups, and the viewers' perceptions and preferences of visual quality in the RSA. The inventory of existing visual resources, viewer groups, viewer preferences, and existing visual quality is provided in Chapter 5. This inventory is based on field work conducted along the project alignment on May 16, 2016, in consultation with the Authority and the FRA, when work on the analysis, with updates to the analysis occurring with project changes or additional resources added. In addition to field work, the Authority conducted research and review of publicly available documents and plans within the project alignment. Additionally, technical staff for this visual analysis conducted consultation with technical subject matter experts for aesthetics, cultural resources, and recreational resources.

The third step is to analyze and objectively evaluate whether the project section would have a beneficial, adverse, or neutral effect on visual quality, based on the project section's compatibility with its setting and the sensitivity of viewers. The analysis of the overall visual quality after implementation of the project section is provided in Chapter 6, Effects Analysis.

The last step prescribed by the FHWA Guidelines (2015) is to describe mitigation measures to minimize aesthetic effects. Mitigation measures will be provided in the Aesthetics and Visual Quality section of the Draft EIR/EIS for the project section.

This technical report primarily focuses on disclosing aesthetic and visual quality effects. The methods for evaluating impacts under NEPA and determining significance under CEQA are identified below. However, effect findings for NEPA and significance determinations for CEQA are provided in Section 3.16, Aesthetics and Visual Quality, of the Draft EIR/EIS for the project section.

4.2.1 Assessment Method

The assessment method used in this technical report qualitatively measures aesthetic and visual quality effects by considering the change in visual resources, the capacity of the visual environment to absorb the project section, the viewer sensitivity (viewer exposure and viewer awareness) to such change, and the change in overall visual quality. This section describes how existing and future viewer sensitivity and visual quality are qualitatively measured.

A visual resource is a site, object, or landscape feature that contributes to the visual character of the surrounding area or is important because of its visual characteristics or scenic qualities. Visual character is an impartial description of the defining features, landscape pattern, and distinctive qualities of the landscape. According to the FHWA Guidelines (2015), visual resources and the environments they dominate can be divided into three categories: natural, cultural, and project. Although these divisions are artificial, dividing the affected environment into natural, cultural, and project environments to determine their visual character ensures a thorough inventory of the visual character of the area of visual effects. Natural visual resources include land, water, vegetation, and animals that compose the natural environment. Cultural visual resources include buildings, structures, and artifacts that compose the cultural environment. Project visual resources include geometrics, structures, and fixtures that compose the project environment. Visual resources also include state-designated scenic routes and views toward and within natural areas, parks, and urban areas identified as having historical or cultural significance

[11] Twenty-five KVPs were originally selected; however, as a result of project design changes, four KVPs were removed and are no longer included in the analysis.

or that include buildings of similar significance or notable landmark status. Inherent in the measure of the change in visual resources is the capacity of the visual environment to absorb the project section. Visual landscapes have a capacity to seamlessly absorb a project that blends harmoniously with the existing scenic character of a landscape. For instance, the addition of a newly proposed skyscraper in a highly urbanized, dense city center is unlikely to adversely affect the existing visual character and quality of the environment in which it is proposed because the existing visual conditions have the capacity to absorb this change without substantially affecting the character and quality of the visual environment. Conversely, if the same structure were proposed in a highly rural environment, this type of construction would not fit with the existing character and visual quality of the surrounding conditions. Thus, the existing condition, context, and visual character of the environment affect the degree of effects.

4.2.1.1 Viewers

The population affected by the project section is referred to as *viewers*. FHWA Guidelines (2015) divide viewer groups into two distinct entities: neighbors (views of the project footprint) and travelers (rail users with views from the project footprint). This analysis focuses on neighbor viewer groups, because they would be most affected by altered views toward the project footprint because of the proposed project.

Federal Highway Administration Guidelines divide neighbor viewer groups into the following types:

- Residential
- Recreational
- Institutional
- Civic
- Retail
- Commercial
- Industrial
- Agricultural
- Travelers on Roadways with Views of the Project Footprint

Viewer Sensitivity. *Viewer sensitivity* is the degree to which viewers are sensitive to changes in the visual character of visual resources. Viewer sensitivity is determined by establishing viewer preference, as well as viewer exposure and awareness to the project section. Viewer exposure is a measure of proximity, extent, and duration. The following definitions apply to viewer exposure:

- *Proximity* is distance from the viewing object. The farther away a scene or object is from a viewer (*background views*), the less exposure that viewer has. Conversely, the closer the viewer is to an object or scene (*foreground views*), the more exposure the viewer has.
- *Extent* refers to the number of people that would be viewing the scene or object. The greater this number, the higher the overall viewer exposure.
- *Duration* measures how long the scene or object is visible to viewers. With respect to a moving observation point (e.g., a vehicle on a scenic highway), the more narrow the view and the faster one travels, the shorter the duration.

The greater the exposure, the greater the likelihood that viewers would be concerned about visual impacts. Viewer awareness is a measure of attention (level of observation, based on routine and familiarity), focus (level of concentration), and protection (legal and social constraints on the use of visual resources). The following definitions apply to viewer awareness:

- *Attention* correlates with routine. The more routine the scene is to a viewer, the less sensitive the viewer becomes. By contrast, the more unique a scene is to a viewer, the more sensitive the viewer would be to the scene.
- *Focus* refers to the ability to comprehend details. If a view has no specific visual element or point on which the viewer is focused, the viewer would be less sensitive to details of that scene.
- *Protection* is provided by restrictions that authorities and the community place on changes to a particular view or object being viewed. This protection can be legal or social.

The evaluation of viewer sensitivity to visual change is based primarily on viewer type and associated scenic expectations and is augmented with local priorities and values, particularly as

expressed in adopted public policy. For this project section, viewer sensitivity, exposure, and awareness are evaluated in terms of low, moderately low, moderate, moderately high, or high. Low viewer sensitivity may exist when there are few viewers who experience a defined view or when potential views of a project are screened or filtered by intervening terrain, structures or landscaping (low viewer exposure). Low viewer sensitivity may also occur where viewers are not particularly concerned about the quality of views because of their activity type (low viewer awareness), such as a commuter on the freeway. Moderately low viewer sensitivity may occur where views of a project are present, but the project blends with the landscape or is not readily discernable in the view (moderately low viewer exposure), or where viewer activity is not focused on visual quality and expectations are moderately low, such as a recreationist or roadway traveler passing a view down a street corridor (moderately low viewer awareness). Moderate viewer sensitivity may occur where views of a project are distant enough that the project does not dominate the view (moderate viewer exposure), or where viewer activity is not focused on visual quality and expectations are moderate, such as office workers or shoppers (moderate viewer awareness). Moderately high viewer sensitivity may occur where views of a project are close enough that portions of the project are prominent in the view (moderate high viewer exposure), or where viewer activity is focused on visual quality and expectations are moderately high, such as from a local park where views may be somewhat confined by surrounding development and landscaping (moderately high viewer awareness). High viewer sensitivity occurs where a project is highly prominent, open to view, and seen by relatively high numbers of viewers (high viewer exposure) and where viewer concern and expectations of visual quality are also high, as in a rural park where scenery is a primary focus, or in a residential neighborhood (high viewer awareness). FHWA Guidelines (2015) identify members of each type of viewer group and delineate the standard visual preferences of that type.

Typically, recreational and residential viewers are assumed to have higher levels of viewer sensitivity to project effects than people working or passing through a viewshed. Residents are generally assumed to have a high level of interest in or preference for natural harmony and cultural order. Residents experience long-term exposure to changes in their natural and cultural environments, and therefore generally express concern for those environments. Recreational viewers often have high levels of concern with natural harmony and cultural order, particularly in settings where scenery is a central focus of the visitor's experience. In contrast, viewers at their places of work are generally assumed to have lower levels of viewer awareness, particularly in industrial settings; however, the duration of their exposure tends to be longer and, therefore, workers have overall moderate levels of sensitivity. Motorists and commuters are generally assumed to have low levels of sensitivity unless noteworthy scenic vistas would be affected, or the affected roadways have scenic designation. Participants in some types of active recreation may have a lower level of viewer sensitivity because scenery may not be central to the recreation experience.

Standardized descriptions of viewer groups (encompassing viewer groups that could be affected by the project section) are provided in Table 4-1.

Table 4-1 Summary of Affected Viewer Groups and Associated Viewer Preferences

Viewer Group	Viewer Group Preferences
Residential viewers	Residential viewers are owners or renters. Therefore, residential viewers tend to be uninterested in change unless they have been able to participate in defining the change. Note that residential views are evaluated only from publicly accessible areas.
Recreational viewers	Recreational viewers provide or participate in active and passive recreational uses such as organized sporting events, indoor and outdoor leisure activities, and cultural events. Recreational viewers are often focused on their recreational activity, and although they tend to be unsupportive of visual changes that would negatively affect the recreational setting, they tend to be supportive of visual improvements that enhance their recreational experience. Recreational services provided for visitors can be permanent, although the visitors are more transitory.

Viewer Group	Viewer Group Preferences
Retail viewers	Retail viewers include merchants that sell goods and services and the shoppers that buy them. Merchants generally want heightened visibility, free of competing visual intrusions; shoppers need to be able to easily find their destination and, once there, concentrate on the shopping experience. Merchants tend to be more permanent than shoppers, although shoppers often frequent the same stores repeatedly, giving them a sense of permanence.
Commercial viewers	Commercial viewers are those occupying or using office buildings, warehouses, and other commercial structures. Commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers. Workers are often permanent, and visitors and customers are transitory.
Institutional viewers	Institutional viewers provide or receive services from such places as schools or hospitals that provide social services to the community. Consequently, institutions often promote a public image to adjacent viewers, and the presentation of their buildings and grounds are critical and tend to be well maintained. Signage or orientation and wayfinding are commonly associated with institutional facilities. Workers and employees of the institution are present for longer durations, and visitors are more transitory.
Civic viewers	Civic viewers provide or receive services from a government organization, such as a military installation or a federal, state, or local agency. Views of government facilities may or may not be desired, depending on the particular organization and work being performed. Workers and employees of the civic uses are present for longer durations, and visitors are more transitory.
Industrial viewers	Industrial viewers mine or harvest raw materials; manufacture goods and services; or transport goods, services, and people, and often require large amounts of land that has limited exposure to the public. Industrial viewers' visual preference is generally utilitarian unless they want to enhance the public presentation and views of their facility. Industrial viewers tend to be primarily workers with few transitory visitors.
Travelers	Travelers can include pedestrians, cyclists, motorists, and rail users that use various modes of transportation for commuting, touring, and shipping. Pedestrians use only their feet (or a wheelchair or other device), most often on a sidewalk or trail. Cyclists use bicycles at greater speeds than pedestrian travel, and may use trails, traffic lanes, and sidewalks. Motorists use vehicles with engines (e.g., cars, trucks, buses, motorcycles, mopeds, or another technology that is not self-propelled, regardless of fuel source). Motorists move at higher speeds than other groups. By necessity, the driver of a motor vehicle focuses less on the view outside the vehicle. The driver's primary interest is in project coherence, although natural harmony and cultural order also provide resources used for wayfinding. Good natural harmony and cultural order can increase driver attentiveness. Passengers in vehicles and rail cars move at high rates of speed and may be focused on views outside of the vehicle or rail car or on activities in the vehicle or rail car such talking, reading, working, eating, people watching, or napping. Passengers prefer evidence of good natural harmony and cultural order. Commuters travel the same route regularly, have a repeated routine, and are often single drivers, but they may also be passengers, and trips can include commuting to work or to a favorite or frequent destination (e.g., campground, cabin, sports arena, or relative's home). Tourists travel individually or in groups through an area for enjoyment, often with a set destination, on trips that are generally more adventurous, cover longer distances, and take more time than commuting trips. Shippers are generally single drivers moving goods on routine routes of varying distances.

4.2.1.2 Visual Quality

Visual quality is a result of the interactive experience between viewers and their environment. The Authority's and FHWA's visual methodology determine visual quality by evaluating the viewed landscape's characteristics in terms of natural harmony, cultural order, and project coherence.

The analysis of natural harmony, cultural order, and project coherence informs the overall visual quality ratings. Individual viewers may evaluate visual resources in different ways and reach varying conclusions about visual quality based on their interests. The Authority and FHWA visual quality methodology defines these three landscape characteristics as follows:

- **Natural Harmony:** Viewing the visual resources of the natural environment can create a sense of natural harmony in people. People interpret the visual resources of the natural environment as being harmonious or inharmonious. The perception of natural harmony can be determined by viewing the character of the visual resources of the natural environment through the lens of viewer preferences. Viewers have a concept of what constitutes natural harmony. The greater the degree to which the natural visual resources of the area of visual effect (or a particular landscape unit within the area of visual effect) meet the viewer's preferred concept of natural harmony, the higher value the viewer places on those visual resources. When viewing the components of a scene's natural environment, viewers inherently evaluate (like or dislike) the natural harmony of the existing scene, determining if the composition is harmonious or inharmonious.
- **Cultural Order:** Viewing the visual resources of the cultural environment can create in people a sense of cultural order. People interpret the visual resources of the cultural environment as being orderly or disorderly. Similar to the evaluation of natural harmony, the perception of cultural order can be determined by viewing the character of the visual resources of the cultural environment through the lens of viewer preferences. Viewers have a concept of what constitutes cultural order. The greater the degree to which the visual resources of the area of visual effect (or a particular landscape unit) meet the viewer's preferred concept of cultural order, the higher value the viewer places on those visual resources. When viewing the components of the cultural environment, viewers evaluate the scene's cultural order, determining if the composition is orderly or disorderly.
- **Project Coherence:** Viewing the visual resources of the project environment can create in people a sense of project coherence. People interpret the visual resources of the project environment as being either coherent or incoherent. Similar to the evaluation of natural harmony and cultural order, the perception of project coherence can be determined by viewing the character of the visual resources of the project environment through the lens of the viewer preferences. Viewers have a concept of what constitutes project cohesion. The greater the degree to which the visual resources of the project environment meet the viewer's preferred concept of project coherence, the higher value the viewer places on those visual resources. When viewing the components of the project environment, viewers evaluate the coherence of the project environment, determining if the project environmental composition is internally coherent or incoherent.

In this analysis, the characterization of existing visual quality serves as the baseline for evaluating potential effects. Existing visual quality is generally described as either low, moderately low, moderate, moderately high, or high. Views of high quality may have topographic relief, a variety of vegetation, rich colors, impressive scenery, and unique natural or built features. Views of moderately high quality may have interesting landforms and variety in vegetation and color, or moderately high scenery. Views of moderate quality may have interesting but minor landforms, some variety in vegetation and color, or moderate scenery. Views of moderately low quality may have landforms that are very common to the general area, little variety in vegetation and color, or moderately low scenery. Views of low quality have uninteresting features, little to no variety in vegetation and color, uninteresting scenery, or common elements.

As described in the FHWA Guidelines, viewer sensitivity to the effects on visual resources influences the degree of effect on visual quality. Effects on visual quality are identified as *beneficial*, *adverse*, or *neutral*. The degree of visual effect is determined by evaluating the compatibility of the effect and viewer sensitivity to the effect. Compatibility is defined as the ability of the environment to absorb the proposed project, with both the project and the environment having harmonious or congruent visual character. The proposed project can be considered

compatible (not contrasting) or incompatible (contrasting) with the natural, cultural, or project environments.

4.2.2 Landscape Units

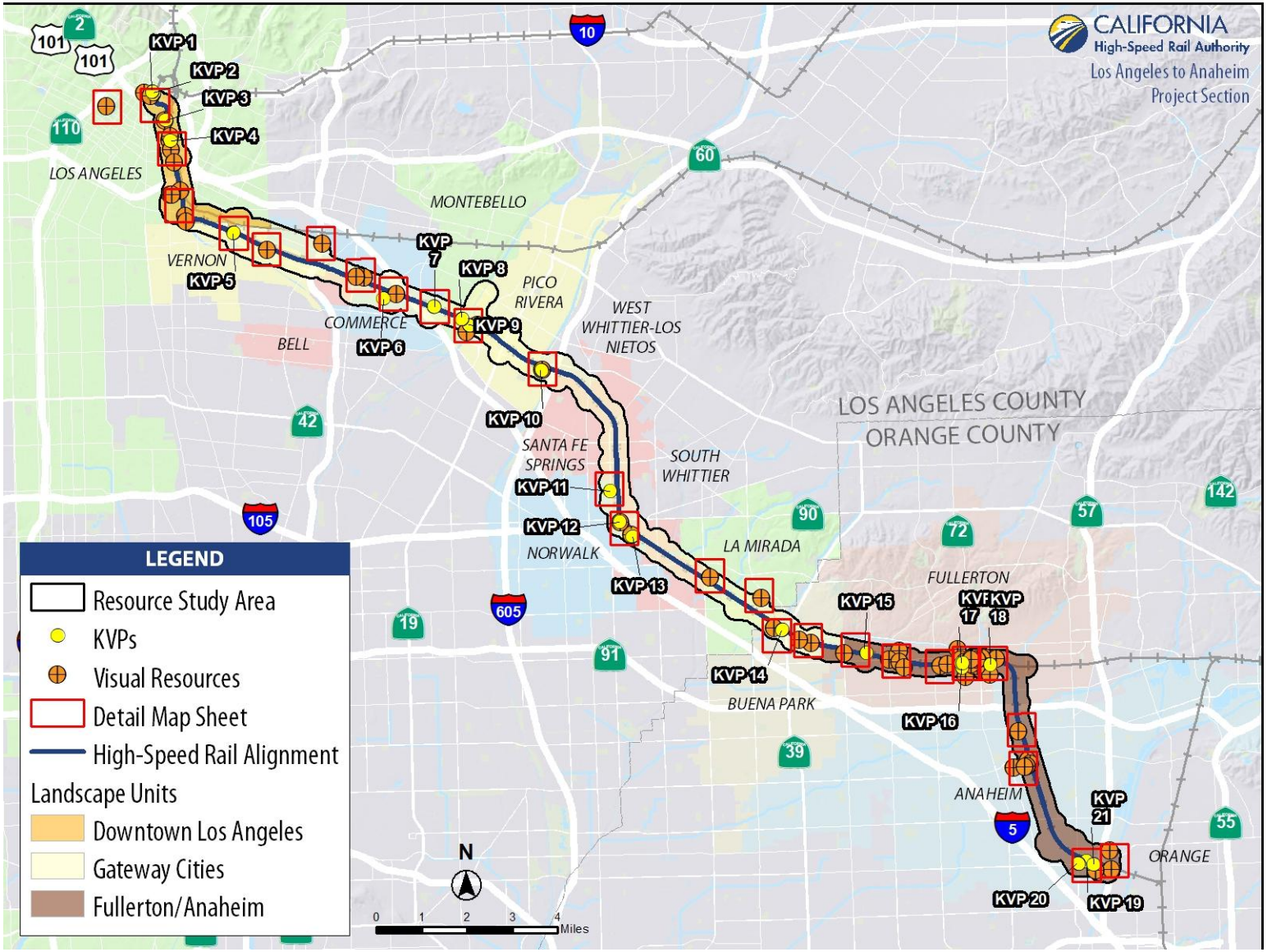
The RSA is divided into three landscape units, or the geographic units in which project effects are assessed, as depicted on Figure 4-1. Landscape units are defined by viewsheds, landscape type, and land use type, including the existing visual character and types of viewers. A landscape unit can be conceived of as a spatially defined area with a particular visual identity. It can be large or small depending on how the landscape is divided into analytically manageable geographic areas.

Dividing the landscape into natural, cultural, and project visual resources is a useful analytical tool. However, this is not how people view and interpret the landscape; people do not dissect the landscape when viewing it but experience it as an overall composition with an interplay between nature, culture, and a project. Therefore, after describing the natural, cultural, and project environments as independent components, Chapter 5 evaluates the overall composition for each landscape unit. Because of the similarity of existing views and viewer sensitivity throughout the RSA, and because areas in the project viewshed have broadly similar visual characteristics and character, landscape units are generally defined by geographic region. These landscape units (Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim) represent a spatially closed or visually bounded area, having distinct landscape character, interrelated visual elements, or specific viewer groups.

Within each landscape unit, KVPs were identified in consultation with the Authority and FRA. These KVPs are used to illustrate whether a project would be compatible or incompatible with particular views. KVPs represent specific locations in a landscape unit from which a proposed project would be visible to viewers. KVPs are very useful for depicting the range of visual character and visual quality found in a landscape unit. These locations are typically selected to either represent (1) typical views from common types of viewing areas, such as certain highways or residential areas with exposure to the project, or (2) specific high-sensitivity areas such as parks, scenic viewpoints, and historic districts that may be affected by a proposed project. The effects determination for an individual KVP may not be the same as the effects determination for the entire landscape unit in which the KVP is located. This is because when determining effects, the entire landscape unit is considered, not just one specific location, and the condition of the viewed landscape as seen from a sensitive or unique KVP may be different than that of the entire landscape unit.

A visual simulation was prepared to depict a conceptual representation of the view from each selected KVP as it would appear with the completed project in place. Computer modeling and rendering techniques produced the simulated images. Existing topographic and site data provided the basis for developing an initial digital model. Project engineers provided plan and profile drawings of the proposed HSR facilities. These were used to overlay a three-dimensional rendering of the proposed HSR facilities onto a digital image of the existing conditions. Comparison of the KVP photographs with the simulations of the project conditions provided the basis for determining potential project effects on views and visual quality.

As discussed above and depicted on Figure 4-3, 22 KVPs were established to assess visual effects. The location and direction of the selected views, their corresponding viewer groups and those viewer groups' visual preferences, and the visual resources considered at each KVP are presented in Table 5-1, Table 5-3, and Table 5-5. Chapter 6 presents visual simulations alongside a photograph at each KVP, which are used to depict the visual changes that would result from the introduction of the Shared Passenger Track Alternatives and form the basis for the *Overall Visual Quality Rating* and *Overall Visual Change* presented in Table 6-1, Table 6-2, and Table 6-3, which summarize the Shared Passenger Track Alternatives' visual effects by landscape unit.



Source: ESRI 2024

Figure 4-3 Landscape Units and Key Viewpoint Locations

4.3 Evaluating Impacts Under NEPA

NEPA implementing procedures, regulations, and guidance provide the basis for evaluating project effects. The criteria of context and intensity are considered together when determining the severity of changes introduced by the project:

- **Context:** For this analysis, the *context* includes adopted local plans, policies, and regulations; existing visual character; presence of parks and recreational destinations; historic districts and properties; important visual resources; and viewer groups.
- **Intensity:** For this analysis, *intensity* is determined by assessing the degree to which the project would result in changes to the context, including the introduction or alteration of features that substantially contrast with the inherent or established visual character of a view or landscape (blocking, removing, or changing a regionally or locally important visual resource or view) where the viewer sensitivity would increase the perceived impact of a visual change.

Guidance from federal agencies specifies the following factors to consider when determining the significance of an effect on aesthetics and visual resources:

- Introduction of elements that would conflict with the visual character of a historic district, or federally or state-listed or eligible historic property
- Substantial effects on a park, recreational destination, or other feature or area identified as an important visual resource
- Introduction or alteration of features that substantially contrast with the inherent or established character of a view or landscape
- Blocking, removing, or changing a regionally or locally important visual resource or view that results in a dramatic change in the visual character or quality of the resource or view
- Consideration of viewer response where a negative response would increase the perceived effect of a visual change

These factors contribute to visual disturbance and affect viewers, visual character, and visual quality during construction and operation.

4.4 Determining Significance Under CEQA

CEQA requires that an EIR identify the significant environmental impacts of a project (State CEQA Guidelines Section 15126). By contrast, under NEPA, significance is used to determine whether an EIS would be required; NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to “significantly affect the quality of the human environment.” Based on the State CEQA Guidelines, the Authority is using the following thresholds to determine if a significant impact on aesthetics and visual quality would occur as a result of the Shared Passenger Track Alternatives. A significant impact is one that would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a designated state scenic highway corridor
- In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, a significant impact would result if the project conflicts with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

Visual change and the sensitivity of people who view the affected landscape determine the level and degree of impact of a proposed project. For this project, level of impact was determined for KVPs according to the following:

- If a visual change of two categories or more (for example, from high to moderate) occurred and the changes were observed by viewers with high or moderate viewing sensitivity, the visual quality impact was considered to be significant for the CEQA determination.
- If a visual change of one or more categories occurred (for example, high to moderate-high or moderate to low) in an area with people who have high viewer sensitivity, the visual quality impact was considered to be significant for the CEQA determination.
- If viewers with moderate to low sensitivity observed a visual change of one category, the visual quality impact was considered to be less than significant for the CEQA determination.
- Visual changes observed by people with low viewer sensitivity were assumed to have visual quality impacts that were considered to be less than significant for the CEQA determination.

In many instances, the presence of the Shared Passenger Track Alternatives would alter visual character, but not enough to lower the visual quality category. These impacts are considered less than significant for the CEQA determination.

Other considerations include whether the project would (1) introduce elements that would substantially conflict with the visual character of a historic district or a federally or state-listed or eligible historic property, or (2) substantially affect the scenic values of a park, recreational destination, or other feature or area that has been identified as an important visual resource.

5 AFFECTED ENVIRONMENT

This section describes existing important visual resources, depicts the location of the three landscape units in the project section, and describes key views and existing visual quality in each landscape unit.

A visual resource is any visible site, object, or feature of the landscape that contributes to the visual character of the surrounding area or is important because of its visual characteristics or scenic qualities. Visual resources include components of the natural, cultural, or project environments. As discussed in Chapter 4, Methods for Evaluating Effects, natural visual resources include land, water, vegetation, and animals that compose the natural environment. Cultural visual resources include buildings, structures, and artifacts that compose the cultural environment. Project visual resources include geometrics, structures, and fixtures that compose the project environment. Visual resources also include state-designated scenic routes and views toward and within natural areas, parks, and urban areas identified as having historical or cultural importance or that include buildings of similar importance or notable landmark status.

Noteworthy visual resources that were identified throughout each landscape unit and within the RSA are discussed in more detail below. Visual resources in the RSA were evaluated based on several factors: size, scale, and massing; overall visual interest and contribution to local visual character; architectural importance or uniqueness; cultural/historical importance; proximity to the rail corridor; and available lines of sight to or from the resource and the proposed alignment. The visual resources inventory includes several parks, recreational facilities, and cultural resources. For further discussion on the Shared Passenger Track Alternatives' potential effects on those resources, please refer to the respective technical reports and Draft EIR/EIS sections for those resource areas.

Visual quality is a result of the interactive experience between viewers and their environment. Under the FHWA visual quality analysis system, visual quality is determined by evaluating the viewed landscape's characteristics in terms of natural harmony, cultural order, and project coherence. The analysis of natural harmony, cultural order, and project coherence informs the overall visual quality ratings. Visual quality is rated as low, moderate-low, moderate, moderate-high, or high. To determine overall visual quality, the natural harmony, cultural order, and project coherence are also rated, and the ratings of these three factors determine the overall visual quality. The existing visual quality of the RSA was determined by analysts who are familiar with the Authority's and FHWA's methodology and who completed field visits within the RSA on several occasions. Changes in visual character and viewer sensitivity determine the degree of impact on visual quality from a proposed project, which is rated as beneficial, neutral, or adverse.

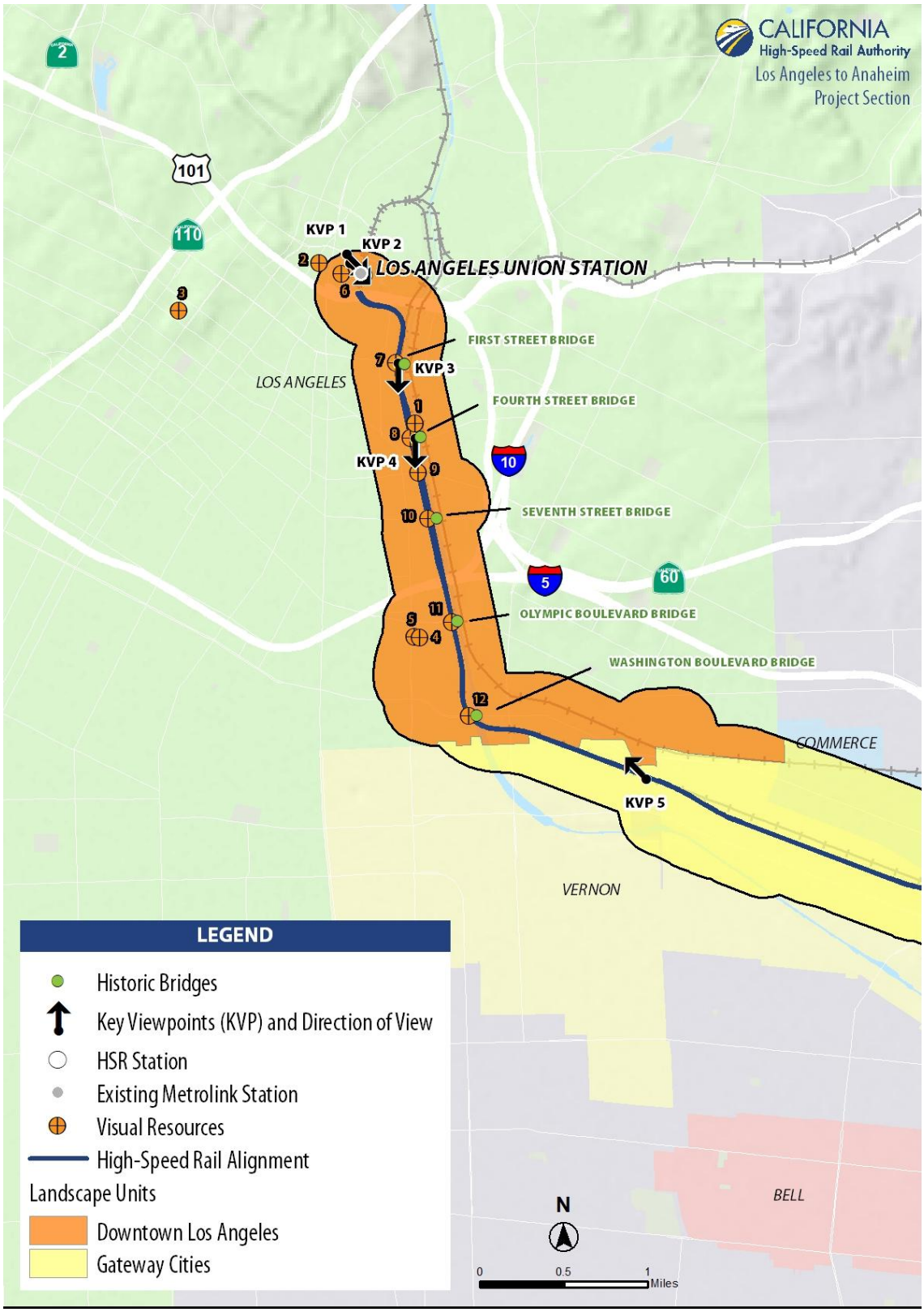
5.1 Downtown Los Angeles Landscape Unit

The Downtown Los Angeles Landscape Unit extends from the project's northern terminus at U.S. Highway 101 to the southern limits of the city of Los Angeles and generally includes land used for manufacturing, warehousing, rail yards, and other commercial and industrial uses, as well as some mixed-use parcels with residences. The visual character throughout the Downtown Los Angeles Landscape Unit is typified by the industrial/commercial corridor and development surrounding the existing railway. Important visual resources include the downtown Los Angeles skyline, LAUS, four historic bridges, and mature street trees, which provide color and scenic value. After a review of the proposed alignment, no important parks have been identified in this landscape unit. Below is a description of the visual resources within the Downtown Los Angeles Landscape Unit based on analysis of aerial and satellite mapping, site surveys, and a review of policy documents.

5.1.1 Existing Visual Resources and Character

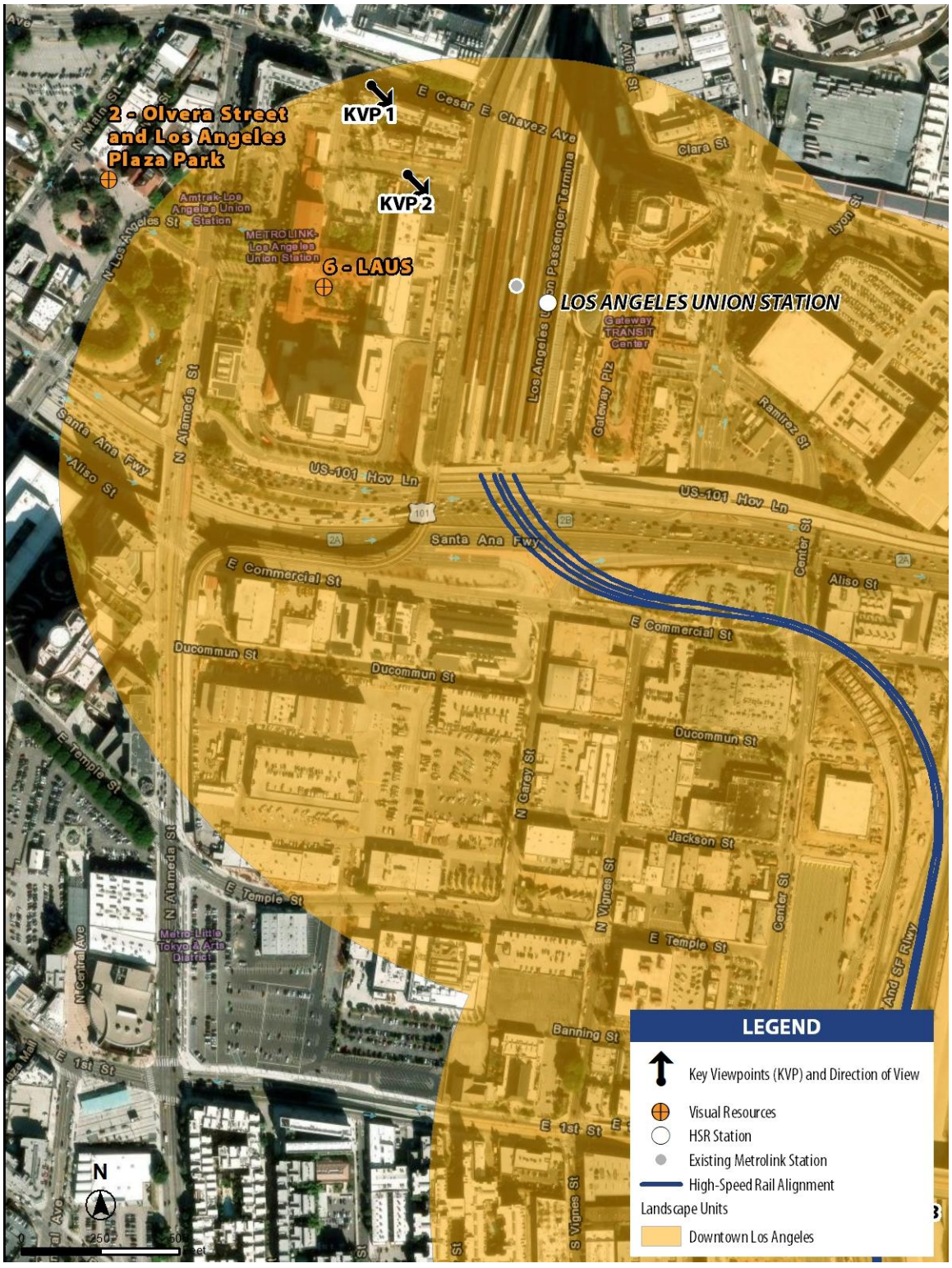
The notable visual resources identified throughout the Downtown Los Angeles Landscape Unit are depicted on Figure 5-1 and Figure 5-2, sheets 1 through 4. The Downtown Los Angeles Landscape Unit comprises a dense, urban setting including the downtown skyline with its skyscrapers and residential neighborhoods scattered throughout. The Los Angeles River and bike

path, Santa Monica Mountains, Verdugo Mountains, San Gabriel Mountains, and San Rafael Hills are key visual resources, as are the identified historic bridges in this landscape unit. There are also several cultural and historic landmarks identified in this landscape unit.



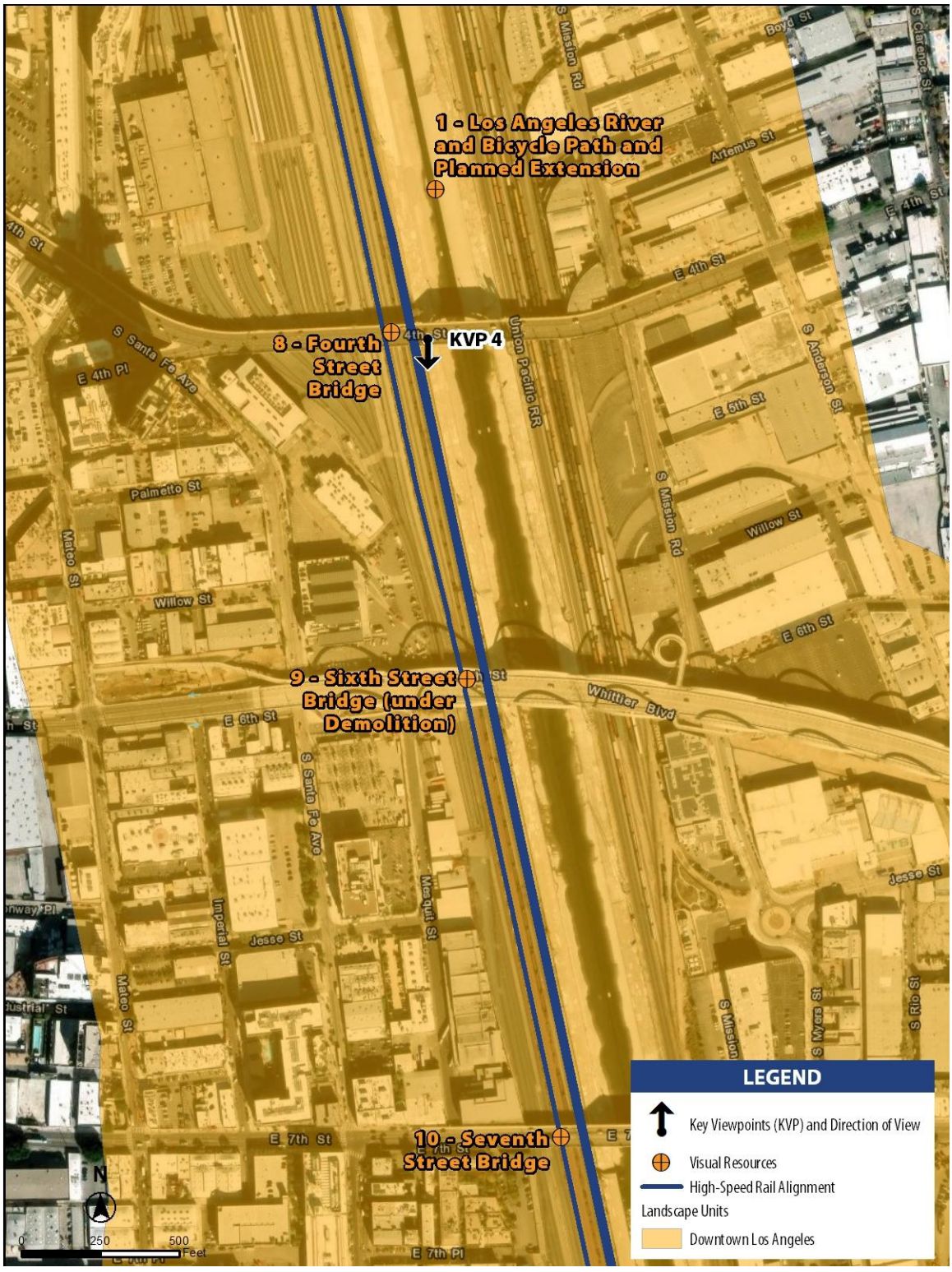
Source: ESRI 2024

Figure 5-1 Visual Resources and Key Viewpoints in the Downtown Los Angeles Landscape Unit, Overview



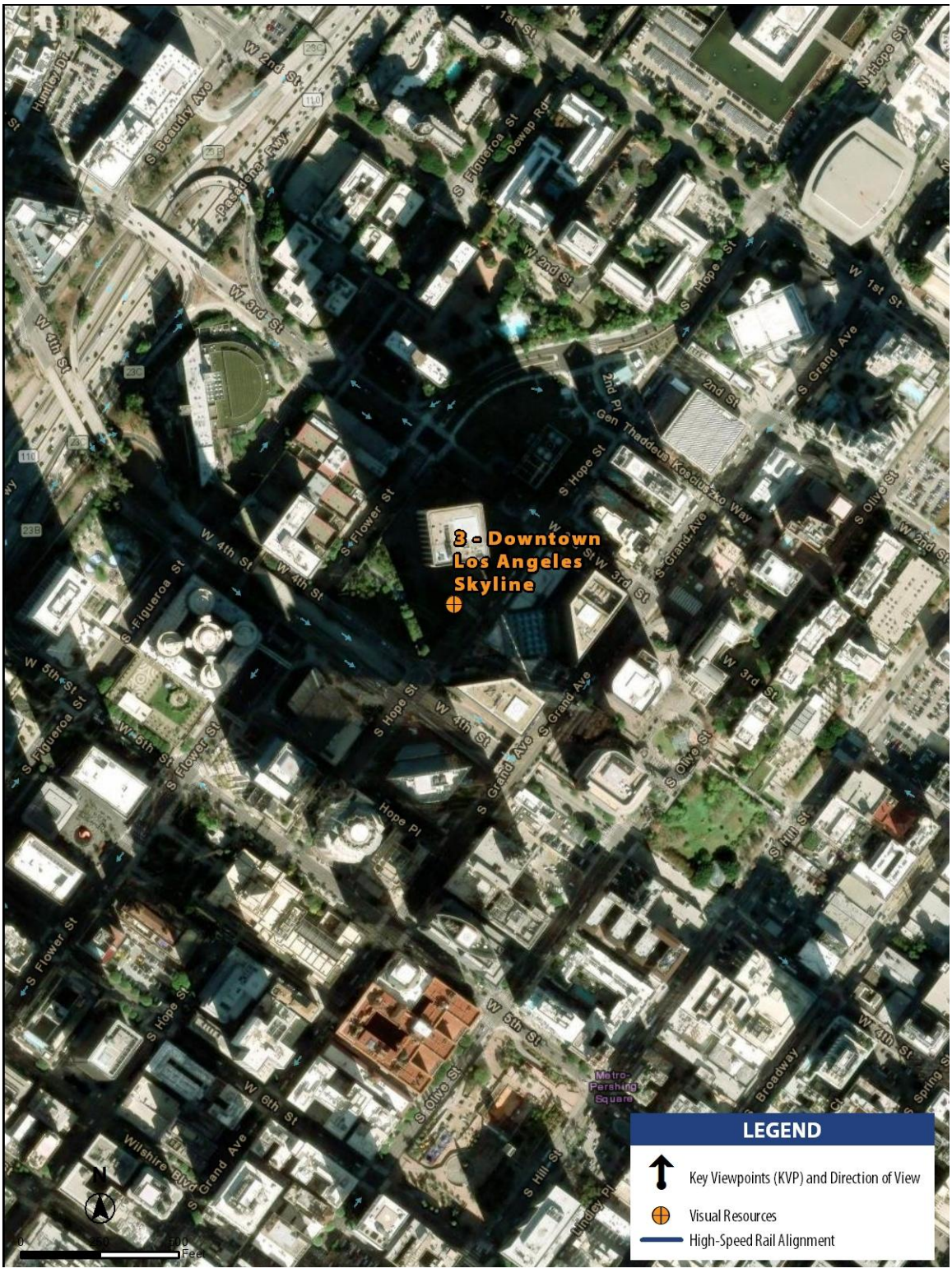
Source: ESRI 2024

Figure 5-2 Visual Resources in the Downtown Los Angeles Landscape Unit, Sheet 1 of 4



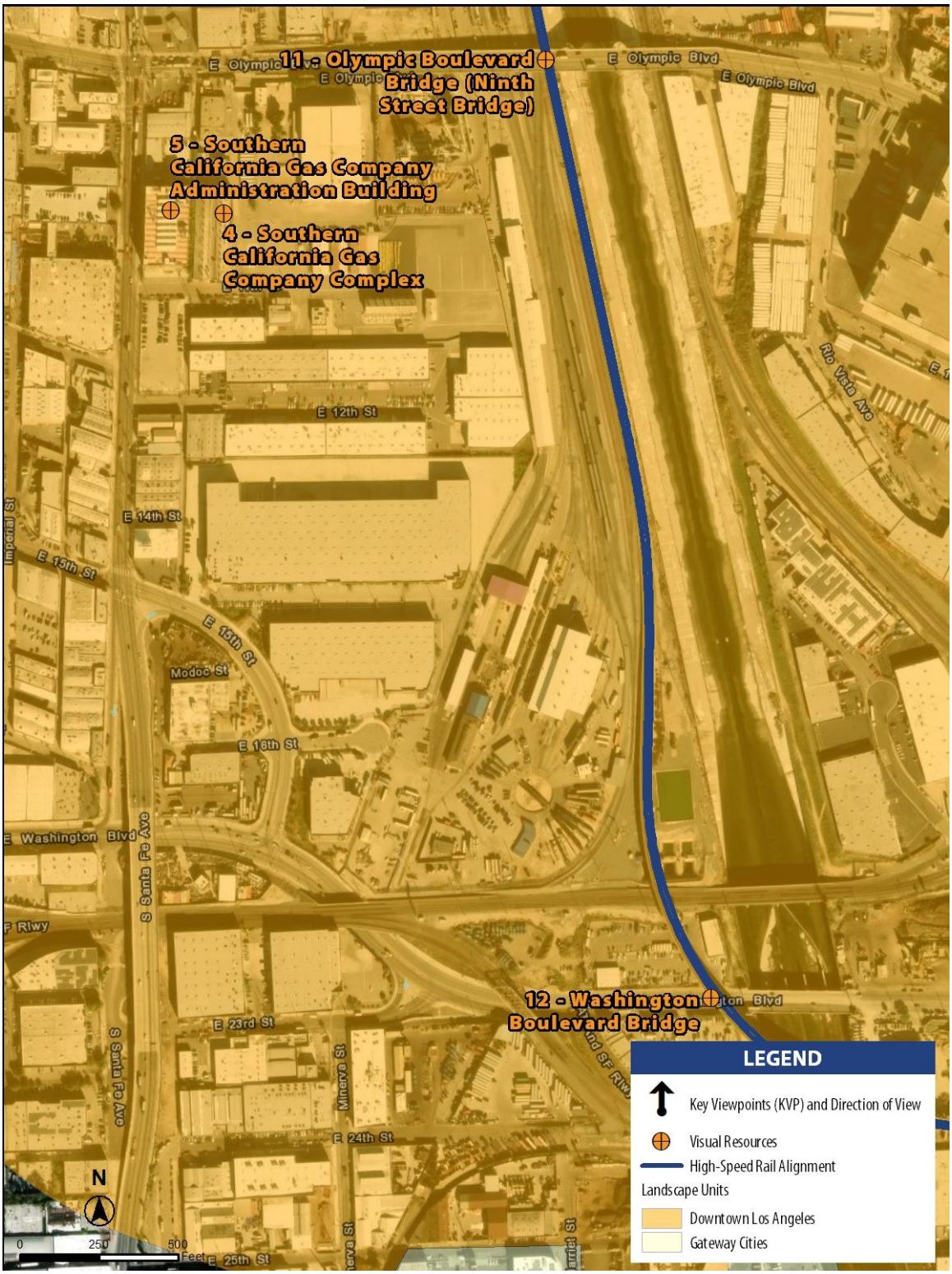
Source: ESRI 2024

Figure 5-2 Visual Resources in the Downtown Los Angeles Landscape Unit, Sheet 2 of 4



Source: ESRI 2024

Figure 5-2 Visual Resources in the Downtown Los Angeles Landscape Unit, Sheet 3 of 4



Source: ESRI 2024

Figure 5-2 Visual Resources in the Downtown Los Angeles Landscape Unit, Sheet 4 of 4

5.1.1.1 Natural Visual Resources

1. Los Angeles River and Bicycle Path and Planned Extension

For purposes of this analysis, the Los Angeles River and Los Angeles River Bike Path and Los Angeles River Trail Extension (Planned) are combined because of geographic proximity but are separated out below.

1a. Los Angeles River

Headwaters of the Los Angeles River originate in the Simi Hills and Santa Susana Mountains. The river flows through Los Angeles County from Canoga Park in the western end of the San Fernando Valley to its mouth in the city of Long Beach, nearly 48 miles to the southeast. The Los Angeles River now flows through a concrete channel on a fixed course, which was built after a series of floods in the early twentieth century. The section of the Los Angeles River within the Downtown Los Angeles Landscape Unit is a concrete-lined flood control channel with little vegetation or wildlife habitat, which is in contrast to the more natural, unchanneled sections of the river to the north.

1b. Los Angeles River Bike Path (Cultural Visual Resource)

The Los Angeles River bicycle path is a Class I bicycle and pedestrian path in the greater Los Angeles area, running north/east along the Los Angeles River. The Los Angeles River bicycle path consists of two main parts and other shorter sections that currently do not connect with each other along the river. The 7.4-mile section of bikeway through the Glendale Narrows is known as the Elysian Valley Bicycle and Pedestrian Path. The bike path also runs from the city of Vernon to the city of Long Beach; this section is referred to as the Los Angeles River Bikeway. Access to the river in downtown Los Angeles is limited because of the rail lines on both sides of the river.



Source: Los Angeles River Revitalization 2016

5.1.1.2 Cultural Visual Resources

2. Olvera Street and Los Angeles Plaza Park

Olvera Street is in the oldest part of downtown Los Angeles and is part of El Pueblo de Los Angeles Historic Monument, also known as the Los Angeles Plaza Historic District. Olvera Street is a Mexican marketplace with a block-long narrow, tree-shaded, brick-lined market with old structures, painted stalls, street vendors, cafés, restaurants, and gift shops. The 44-acre park

area was designated a state historic monument in 1953 and listed on the National Register of Historic Places (NRHP) in 1972.



Source: City of Los Angeles Department of Parks 2016

3. Downtown Los Angeles Skyline

Looking north throughout the Shared Passenger Track Alternatives alignment areas and existing rail corridor, various iconic skyscrapers and buildings line downtown Los Angeles, backdropped by the San Gabriel Mountains, and provide scenic relief from various vantage points throughout Southern California.



Source: Wikipedia 2016a

4. Southern California Gas Company Complex

The Southern California Gas Company Complex consists of four buildings built during the years from 1932 to 1936: the Office and Lab building, Auto Service and Gas Station building, Weigh Station, and Shop building. The complex was determined eligible for the NRHP with State Historic Preservation Officer concurrence for architecture, with a 1919 to 1936 period of significance that reflects the date that Southern California Gas Company first began to operate from the legal parcel boundary through the complex's most recently built building. The Office and Lab building and the Shop building display elements of the Spanish Colonial Style architecture, and the Auto Service and Gas Station building is an example of Streamline Moderne architecture. Contributing elements consist of the four buildings in the complex boundaries. Only the Shop building could be observed from the public right-of-way. The Shop building's character-defining features include its

two front gables over a rectangular plan, stucco cladding, loading bays with metal roll-up doors, multilight windows (one has been painted over), pilasters, and medallions in the gable end.

5. Southern California Gas Company Administration Building

The Southern California Gas Company Administration Building was determined eligible for listing in the NRHP with State Historic Preservation Officer concurrence for architecture and its period of significance is 1923, the year of its construction. This building is an important example of the work of the prominent Los Angeles architectural firm Curlett and Beelman. Character-defining features consist of the building's rectangular plan and four-story plus basement height; piers; sawtooth roof; minimal classical detailing around the two west-facing entrances; medallions on the primary elevation that depict gas-related infrastructure and the year build date; and multilight steel windows all four elevations, including three-story-tall windows along the primary (west) elevation and the north elevation.

5.1.1.3 Project Visual Resources

6. LAUS

LAUS was built in 1939 in downtown Los Angeles, on 800 North Alameda Street between U.S. Highway 101 and Cesar Chavez Avenue. LAUS was added to the NRHP in 1980. It is a major transportation hub providing access to Amtrak, Metrolink, Metro Red and Purple Lines (to North Hollywood and Mid-Wilshire, respectively), and Metro Gold Line (to Pasadena and East Los Angeles), along with several surface transportation modes. The station is a mix of Spanish Mission, Moorish, and Streamline Moderne architectural styles. The station is also home to the Metro at Gateway Plaza, a 26-floor tower opened in 1995.



7. First Street Bridge

The First Street Bridge, spanning the Los Angeles River from approximately Mission Road on the east to Vignes Street on the west, was determined eligible for inclusion in the NRHP in 1986 at the local level of significance. The First Street Bridge was listed as a City of Los Angeles Historic-Cultural Monument (HCM) on January 30, 2008. Contributing elements include the reinforced-concrete, open-spandrel viaduct and the arch ribs and struts, the spandrel beams and columns, piers, abutments, and wingwalls.



8. Fourth Street Bridge

The Fourth Street Bridge, spanning the Los Angeles River from Mission Road on the east to Santa Fe Avenue on the west, was determined eligible for inclusion in the NRHP in 1986 at the local level of significance. The Fourth Street Bridge was listed as a City of Los Angeles HCM on January 30, 2008. The Fourth Street Bridge is of the Gothic Revival design, and contributing elements include ornamental pylons having lancet arched openings, decorative bronze lanterns, pointed arched pilasters, and pointed capping; trefoil railing detail; tapered concrete light poles with finials and paired decorative bronze lanterns; and closed spandrel barrel arches.



9. Sixth Street Bridge (Demolished)

The Sixth Street Bridge, spanning the Los Angeles River from approximately Boyle Avenue on the east to Mateo Street on the west, was determined eligible for inclusion in the NRHP in 1986 at the local level of significance. The Sixth Street Bridge was listed as a City of Los Angeles HCM on January 30, 2008. The Sixth Street Bridge was demolished in 2016 and is no longer a historic property for purposes of Section 106 of the National Historic Preservation Act. Construction of the new bridge was completed in 2020.



10. Seventh Street Bridge

The Seventh Street Bridge, spanning the Los Angeles River from approximately Myers Street on the east to Santa Fe Avenue on the west, was determined eligible for inclusion in the NRHP in 1986 at the local level of significance. The Seventh Street Bridge was listed as a City of Los Angeles HCM on January 30, 2008. Contributing elements include assimilation of the pre-existing 1910 bridge; decorative spindle railing; concrete pylons with molded inset paneling each supporting a centered bronze mast and two symmetrically placed bronze luminaires with acorn finials; and secondary light fixtures of double luminaires attached to a concrete mast atop a base having multiple inset panels.



Source: ICF 2016

11. Olympic Boulevard Bridge (Ninth Street Bridge)

The Olympic Boulevard (Ninth Street) Bridge, spanning the Los Angeles River from Rio Vista Avenue on the east to Enterprise Street on the west, was determined eligible for inclusion in the NRHP in 1986 at the local level of significance. The Olympic Boulevard Bridge was listed as a City of Los Angeles HCM on January 30, 2008. Contributing elements include Beaux-Arts (Classical) detailed ornamental pylons having triglyphs, metopes, and dentil molding, topped with a bracket molded base on which is a centered, finial-capped mast from which symmetrically extend four torch-like bronze luminaries each underscored at their armatures with floral bracketing and bud-like drop finials; turn spindle railing with a periodic circle motif within which is diagonally inset a semi-abstract bud-like double motif akin to nearby spindles but possessing a mantling quality; and molded railing with small, periodic piers.



Source: ICF 2016

12. Washington Boulevard Bridge

The Washington Boulevard Bridge was previously determined NRHP eligible in 1986 at the local level of significance. A relatively short bridge spanning only the Los Angeles River channel itself and designed by City Bridge Engineer Merrill Butler, the Washington Boulevard Bridge is a five-span T-girder bridge with City Beautiful Beaux-Arts design elements. It is listed as a City of Los Angeles HCM.



Source: ICF 2016

5.1.2 Viewers

There are a variety of land uses throughout the Downtown Los Angeles Landscape Unit and, therefore, a variety of viewers and viewer groups. Primary viewer groups in the Downtown Los Angeles Landscape Unit include employees and visitors to businesses throughout the downtown Los Angeles industrial corridor, as well as residents/recreationists in areas that neighbor the existing railroad corridor. Other viewer groups include motorists, commuters, haulers, transit riders, pedestrians, and bicyclists that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment.

Table 5-1 identifies the locations and directions of views, viewer groups, viewer preferences, and visual resources considered for KVPs 1 through 8, in the Downtown Los Angeles Landscape Unit.

Table 5-1 Downtown Los Angeles Landscape Unit: Key Viewpoints' Viewer Groups, Viewer Preferences, and Visual Resources

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
1	View from E Cesar Chavez Ave (facing southeast)	Travelers: motorists/ pedestrians using E Cesar Chavez Ave Industrial/commercial viewers: employees throughout the downtown Los Angeles industrial corridor	Industrial/ commercial viewers: low Travelers: moderate-low	Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Tree-lined street
2	View from Mozaic at Union Station Apartments (facing southeast)	Residential viewers: Mozaic at Union Station Apartments Industrial/ commercial viewers: employees throughout the downtown Los Angeles industrial corridor	Residential viewers: moderate Industrial/ commercial viewers: low	Residential viewers' visual preference is generally toward strong visual character because these viewers, on average, spend a majority of their lives in and around their homes. Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Los Angeles Union Station

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
3	View from 1st St at the Los Angeles River (facing southwest)	Industrial/commercial viewers: employees throughout the downtown Los Angeles industrial corridor Travelers: motorists/ pedestrians using 1st St Bridge	Industrial/ commercial viewers: low Travelers: low	Motorists and pedestrians are considered transitory and temporary viewers. However, pedestrian, bicycle, and automobile viewers have a higher sensitivity at historic bridges. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Los Angeles River
4	View from north of 4th St at the Los Angeles River (facing south)	Industrial/commercial viewers: employees throughout the downtown Los Angeles industrial corridor Travelers: motorists/ pedestrians using 4th St Bridge	Industrial/ commercial viewers: low Travelers: low	Motorists and pedestrians are considered transitory and temporary viewers. However, pedestrian, bicycle, and automobile viewers have a higher sensitivity at historic bridges. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Los Angeles River and 7th St bridge

KVP = key viewpoint

5.1.3 Visual Quality

Table 5-2 measures the existing visual character of the affected environment by qualitatively rating the natural harmony, cultural order, and project coherence to determine the existing visual quality throughout this project section. Viewer groups and viewer preference are taken into account when determining existing visual quality.

Four KVPs were identified to represent typical views from common types of viewing areas, depicting the range of visual character and visual quality found in a landscape unit. The four KVPs established in the Downtown Los Angeles Landscape Unit are depicted on Figure 5-1.

Table 5-2 Downtown Los Angeles Landscape Unit: Existing Visual Quality

KVP	Natural Harmony	Cultural Order	Project Coherence	Existing Visual Quality
1	Moderate	Moderate	Moderate	Moderate
2	Low	Moderate-low	Moderate-low	Moderate-low
3	Low	Low	Moderate-low	Low
4	Low	Low	Moderate-low	Low

KVP = key viewpoint

5.2 Gateway Cities Landscape Unit

The Gateway Cities Landscape Unit captures residential, recreational, and commercial views to the proposed alignment throughout the communities of Vernon, Commerce, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, and Buena Park. Land uses within this landscape unit vary, including single-family and relatively low-density multifamily residential neighborhoods, mobile-home communities, parks, trails, schoolyards, commercial businesses, and light industrial/manufacturing uses. The visual character throughout the Gateway Cities Landscape Unit is typified by these land uses. Visual resources include natural elements, such as changes in topography or distant views to rolling hills throughout the Los Angeles Basin, street trees, vegetation, and other landscaped elements, as well as built structures that have historical/cultural merit, are architecturally significant, or are otherwise publicly valued. Below is a description of the noteworthy visual resources in the viewshed based on analysis of aerial and satellite mapping, site surveys, and review of policy documents.

5.2.1 Existing Visual Resources and Visual Character

Visual resources identified throughout the Gateway Cities Landscape Unit are depicted on Figure 5-3 and Figure 5-4, sheets 1 through 14. The Gateway Cities Landscape Unit comprises a dense, urban setting with residential neighborhoods scattered throughout. Notable visual resources in this landscape unit include several river and bicycle trails and cultural landmarks, including historic train stations and properties.



Source: ESRI 2024

Figure 5-3 Visual Resources and Key Viewpoints in the Gateway Cities Landscape Unit, Overview



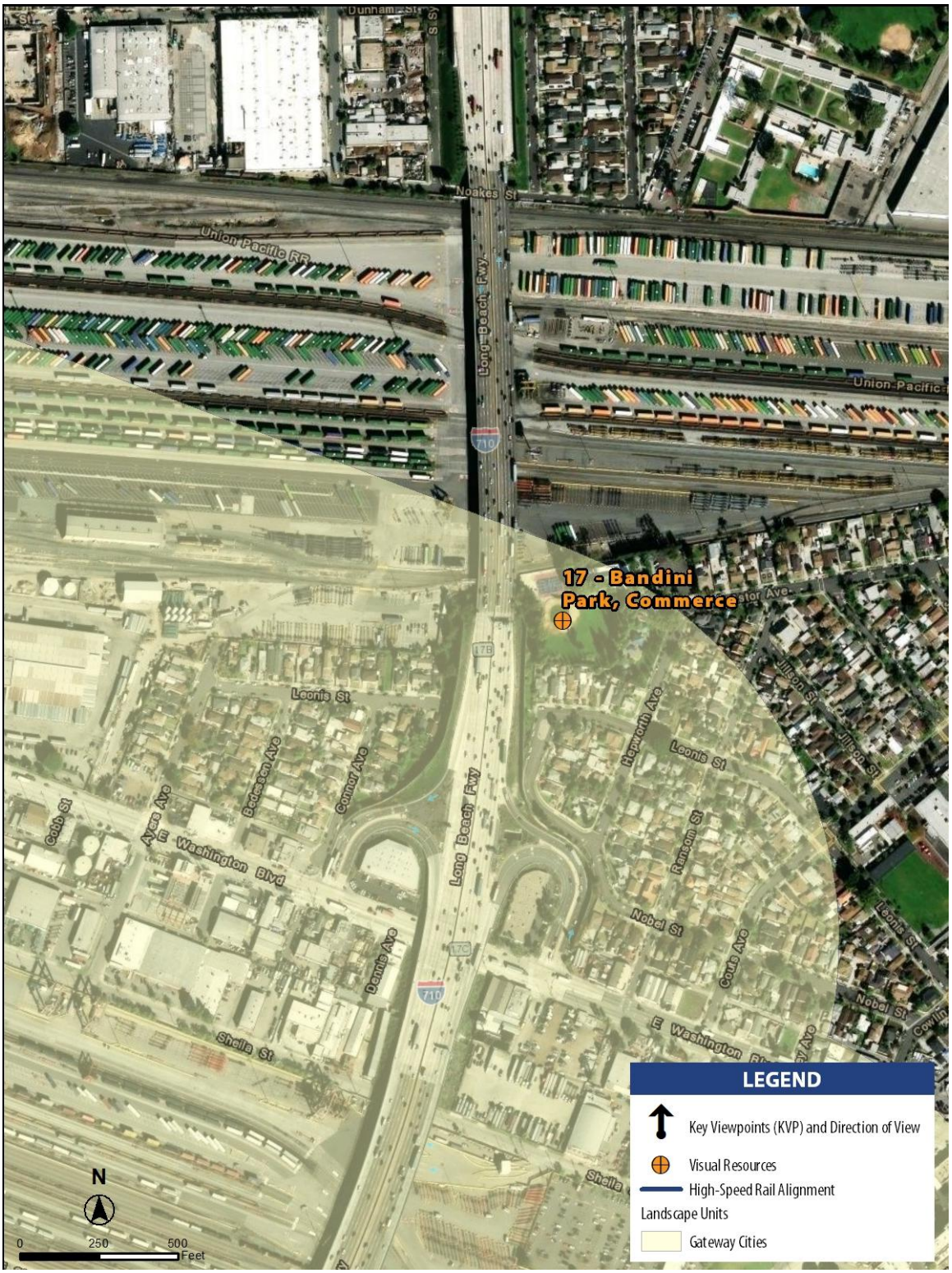
Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 1 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 2 of 14



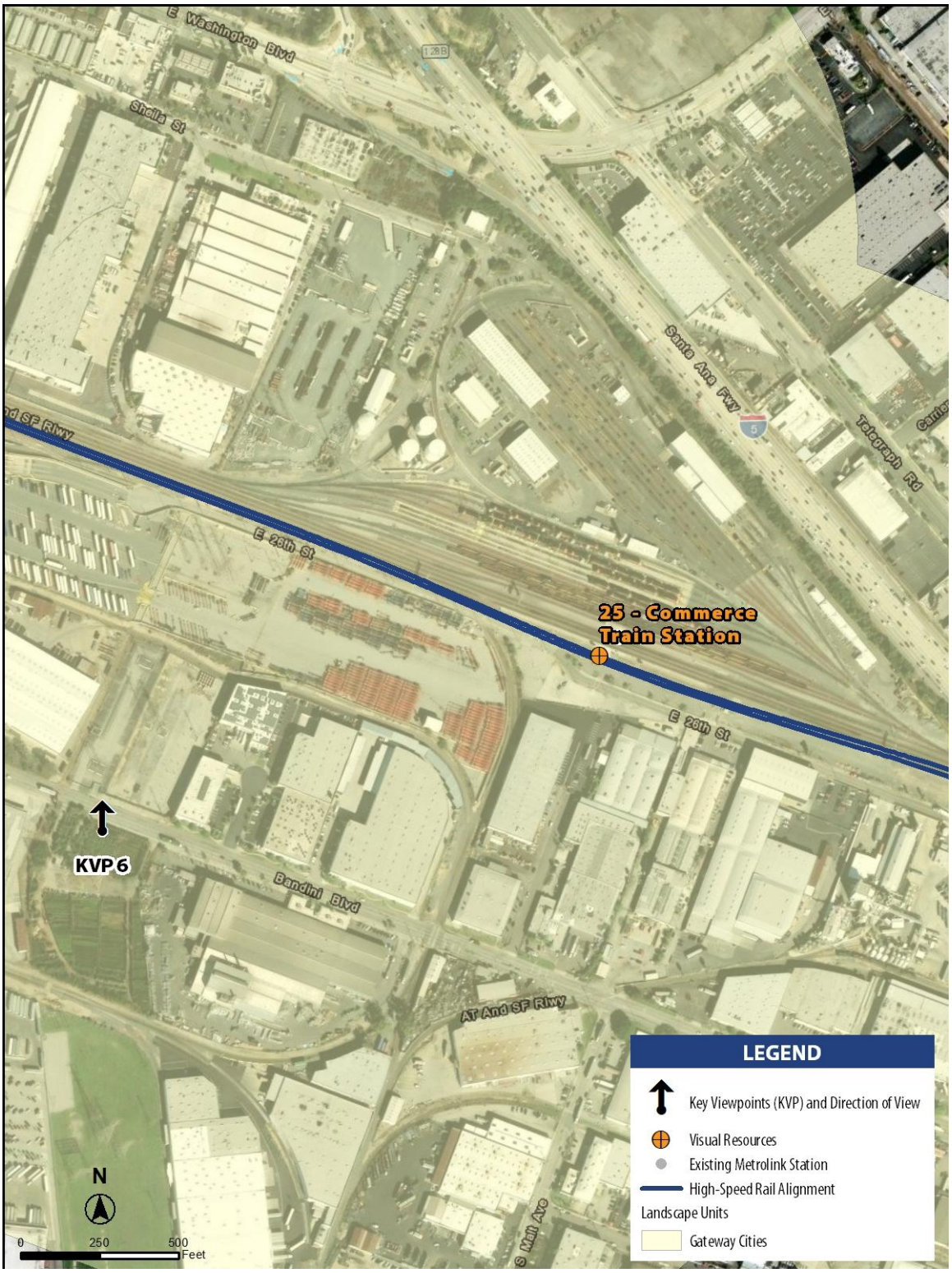
Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 3 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 4 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 5 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 6 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 7 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 8 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 9 of 14



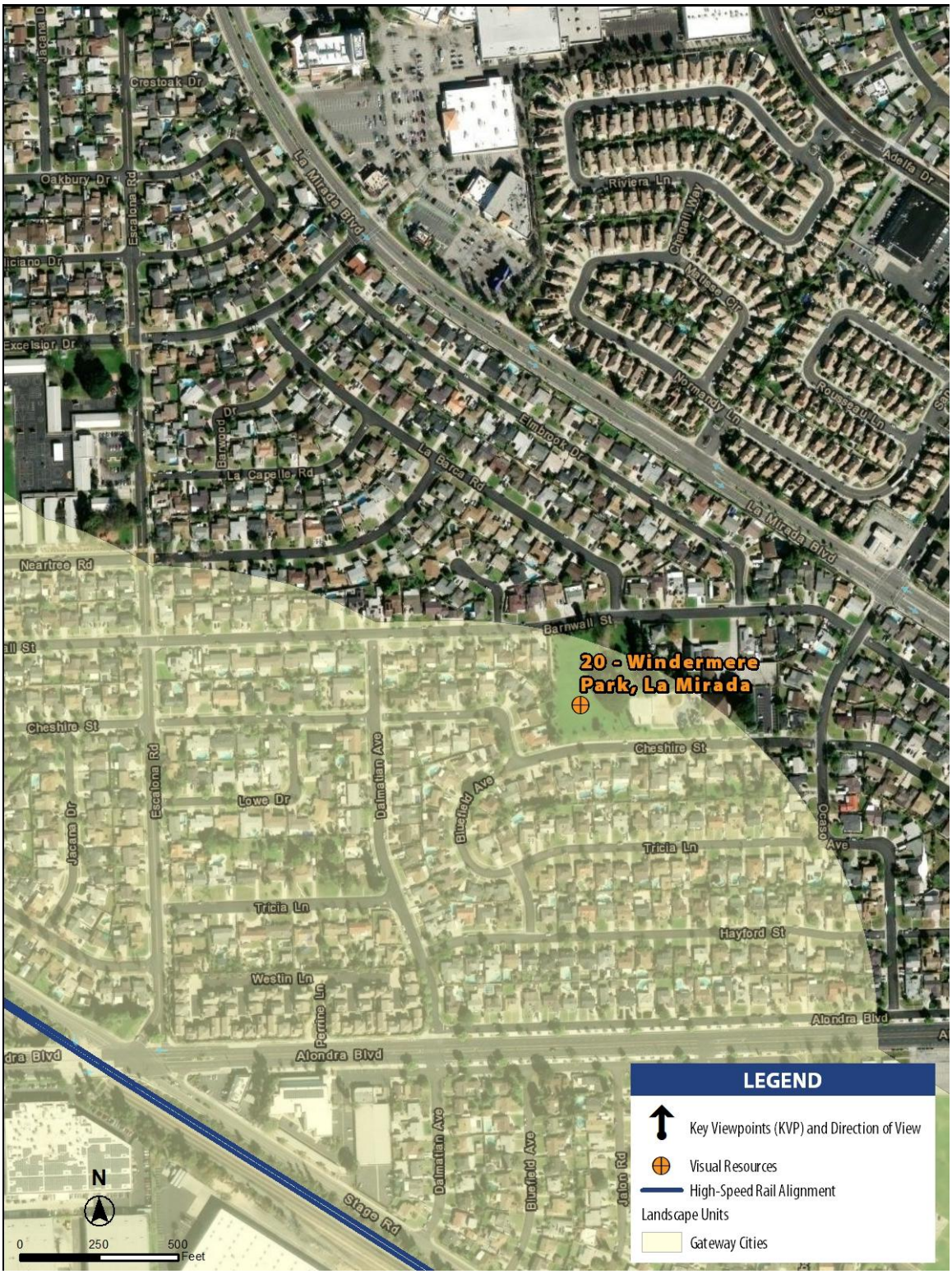
Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 10 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 11 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 12 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 13 of 14



Source: ESRI 2024

Figure 5-4 Visual Resources in the Gateway Cities Landscape Unit, Sheet 14 of 14

5.2.1.1 Natural Visual Resources

13. Rio Hondo and Bicycle Path/River Trail

The Rio Hondo is a river that is tributary to the Los Angeles River. It begins in Irwindale and flows into the Los Angeles River in South Gate. The southern segment of the Rio Hondo channel is presumed eligible for listing in the NRHP. Contributing elements include a concrete channel base, concrete-lined embankments, and grouted stone embankments. Most of the river is lined with concrete as a channel, but in the RSA, its bottom is sandy. Although usually dry, it carries substantial amounts of water during heavy rains. The bike path runs from the Peck Road Water Conservation Park to the north, terminating at Imperial Highway in the city of Downey to the south. The trail runs adjacent to the westerly side of the Rio Hondo basin and parallel along the channel through the San Gabriel Valley. The northern end starts along the reservoir at the Peck Road Water Conservation Park and follows along the channel to Whittier Narrows Recreation Area.



Source: Wikimedia Commons 2016a

14. San Gabriel River and Bicycle Path/River Trail

The San Gabriel River flows 43 miles through Los Angeles and Orange Counties. Today most of the San Gabriel River is channelized, with the section below Whittier Narrows Dam lined by concrete and impounded in places by debris and flood control dams. The San Gabriel River Bike Path is a 28-mile bike path along the San Gabriel River through El Dorado Regional Park and onto street bike trails near the Alamitos Bay Marina in Los Angeles County. The trail is adjacent to the San Gabriel River Bike Path. The southern end of both facilities is Seal Beach. The northern segment begins near Whittier Narrows Recreation Area.



Source: Los Angeles County Department of Public Works 2016

15. Coyote Creek and Bikeway

Coyote Creek is a principal tributary of the San Gabriel River in northwest Orange County, southeast Los Angeles County, and southwest Riverside County. The Coyote Creek North Fork Bikeway (Existing) is a Class 1 bike path in Los Angeles County that runs adjacent to the Coyote Creek flood control channel for approximately 9.5 miles. The bike path is controlled by the California Department of Transportation. The path begins in Santa Fe Springs on the north fork of the Coyote Creek and extends south into Long Beach, where it joins the San Gabriel River bicycle path at the trail bridge just south of Willow Street/Katella Avenue.



Source: American Society of Civil Engineers 2016

5.2.1.2 Cultural Visual Resources

16. Federated Metals Corporation, Vernon

The subject property is a substantially sized industrial parcel containing two connected buildings that each possess Moderne-styled design elements. The Federated Metals Corporation property is not NRHP eligible; however, this building is an exceptionally intact example of a 1930s-era Moderne-style industrial building and is therefore still considered an important cultural visual resource for the purposes of this aesthetics analysis.



Source: ICF 2016

17. Bandini Park, Commerce

Bandini Park, one of four neighborhood parks in the city of Commerce, offers outdoor activities, such as organized youth sports in basketball, flag football, soccer, softball, volleyball, picnic shelters, playgrounds and a children's wading pool, which is open during the summer. Bandini Park has a meeting room, kitchen facility, preschool room, arts and crafts/ceramics room, and television viewing room.



Source: City of Commerce 2016

18. Zimmerman Park, Norwalk

This park on Shoemaker Avenue immediately west of the LOSSAN Corridor provides several sports fields and hosts little league baseball.



Source: Wikimedia Commons 2016b

19. Neff Park, La Mirada

Neff Park covers 10 acres and includes three historic buildings, a gazebo, basketball court, tennis court, horseshoe pits, a playground, and picnic areas. The historic buildings include Neff Home, George House, and Neff Barn. Neff Barn, which displays an extensive collection of historic memorabilia, is used for group reservations, meetings, summer and holiday day camps, and special events. The gazebo can also be reserved for special ceremonies, and the sport facilities are open play.



Source: City of La Mirada 2016

20. Windermere Park, La Mirada

Windermere Park covers 5 acres and includes a community room, a soccer field, a playground, and picnic areas. This community room at the park is used for Tiny Tots, P.A.R.K. Program, meetings, and classes. This playground also offers both tiny tot and older children's play equipment.



Source: City of La Mirada 2016

21. Shrimpton Manufacturing and Supply Company

The Shrimpton Manufacturing and Supply Company is an irregular plan industrial building having Late-Moderne design elements on its primary, street-facing north and west elevations. It is eligible for the NRHP and California Register of Historical Resources (CRHR) at the local level of significance for architecture. The property's period of significance is 1948, the year of its construction. Its character-defining features include metal-frame ribbon windows set in deep bezels, glass block, and a prominent, bezel-framed entry parapet itself having Roman brick cladding, gold anodized doorframes, and travertine veneer. It also includes the landscape in front of the office portion of the industrial building.

22. Western Waxed Paper Company

An exceptionally large complex featuring combined warehouse and office portions, the 1948 Western Waxed Paper Company building is a significant example of a Late Moderne styled post-World War II industrial property. It is eligible for the NRHP and CRHR at the local level of significance for architecture. The property's period of significance is its build year, 1948. The property's street-facing elevations read as an asymmetrical but highly composed total design, of one- and two-story elements, of protruding and receding massing, itself of varying geometries—some set back from a frontal, lawn-covered landscape having mature tree specimens. Character-defining features include a two-story bezel-boxed massing with cutaway square openings; asymmetrically composed front elevation with bezeled balconet counter-balanced by inset, steel-frame, fixed, full-height window glazing and stacked Roman brickwork; architecturally integrated Roman brick planters; a low-rise, extended isosceles cantilever framing a pedestrian walkway and connected to a carport; and long, set-back massing having a continuous grid of fixed aluminum windows.

23. Boulder Dam–Los Angeles 287.5-Kilovolt Transmission Line

The Boulder Dam–Los Angeles 287.5-kilovolt Transmission Line transmits electricity from its generation point at the Boulder (now Hoover) Dam in southern Nevada to the Century Receiving Station in the Watts neighborhood of Los Angeles. It is listed under NRHP/CRHR, its area of significance is engineering, and its period of significance is 1937 to 1953. It is important for its associations to the Boulder Dam, Los Angeles development during the pre-World War II era, and unique engineering and structural characteristics in the context of point-to-point power transmission. Only a small segment of this historic property is present within the landscape unit, near the east bank of the Rio Hondo in Pico Rivera. Character-defining features include the steel

lattice towers, single and double corridors, associated stations, and power cables. However, no towers are included within the landscape unit boundary.

5.2.1.3 Project Visual Resources

24. Redondo Junction

The Atchison, Topeka, and Santa Fe Railway Steam Redondo Junction Yard District was formerly determined NRHP eligible, based on it being one of the last operating train junctions in the western United States to feature a roundhouse, watchman's tower, and offices that housed both the master train mechanic and locomotive supervisor.

Redondo Junction also houses the Atchison, Topeka, and Santa Fe Railway Steam Locomotive No. 3751, an oil-burning steam locomotive built in May 1927 by the Baldwin Locomotive Works in Philadelphia, Pennsylvania. A movable resource, Atchison, Topeka, and Santa Fe Railway Steam Locomotive No. 3751 is presently stored in a shed at the Redondo Junction Yard. The resource was listed on the NRHP in 2000. Redondo Junction currently houses Amtrak maintenance facilities.



Source: ICF 2016

25. Commerce Train Station

The Commerce Metrolink Station (also known as the Montebello/Commerce Station) opened in 1997. It is a fairly low-key station in an industrialized area and adjacent to a large train yard. It is on Twenty-sixth Street, just west of I-5.



Source: Metrolink 2016a

26. Norwalk/Santa Fe Springs Train Station

The Metrolink Station serving Norwalk and Santa Fe Springs is on Imperial Highway at the LOSSAN Corridor. It is a relatively new and still-expanding station, with landscaping, station furniture, and a soaring pedestrian bridge spanning the four railroad tracks as a focal point.

27. Buena Park Train Station

The Buena Park Metrolink Station has been open since late 2007 and is at Lakeknoll Drive and Dale Street in a transit-oriented development area adjacent to a townhouse development operated by California State University at Fullerton. The focal point of the station is a 70-foot-tall clock tower.



Source: Metrolink 2016b

5.2.2 Viewers

As in the Downtown Los Angeles Landscape Unit, because of the variety of land uses found throughout the RSA, there are a variety of viewers and viewer groups. Primary viewer groups in the Gateway Cities Landscape Unit include residents in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, and bicyclists that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment.

Table 5-3 identifies the locations and directions of views, viewer groups, viewer preferences, and visual resources considered for KVPs 5 through 14.

Table 5-3 Gateway Cities Landscape Unit: Existing Viewer Groups and Viewer Preferences

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
5	View from Downey Rd and E 26th St (facing northwest)	Industrial/commercial viewers: employees near existing railway Travelers: motorists/ pedestrians along E 26th St near Downey Rd	Industrial/ commercial viewers: low Motorists/ pedestrians: low	Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Existing railroad tracks; overhead power transmission lines
6	View from 6185 Bandini Blvd (facing north)	Industrial/commercial viewers: employees near existing railway travelers: motorists/ pedestrians along Bandini Blvd	Travelers: low Industrial/ commercial viewers: low	Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Industrial uses and overhead power transmission lines; industrial uses
7	View from Sycamore St and Supply Ave (facing southwest)	Industrial/commercial viewers: employees near existing railway Travelers: motorists/ pedestrians along Sycamore St	Industrial/ commercial viewers: low Travelers: low	Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Industrial warehouse; existing railroad tracks and overhead power transmission lines
8	View from S 4th St and Sycamore St (facing southeast)	Residents along Sycamore St and adjacent local roadways	Residential viewers: moderate-high Travelers: moderate-low	Residential viewers' visual preference is generally toward strong visual character because these viewers, on average, spend a majority of their lives in and around their homes. Motorists and pedestrians are considered transitory and temporary viewers.	Residential neighborhood; tree-lined streets; overhead telephone lines; concrete block wall

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
9	View of the Rio Hondo Trail near Maynard Rd (facing northeast)	Recreationists and bicyclists using the Rio Hondo Trail	Recreational users: moderate	Recreational viewers typically focus on their recreational activity, are typically unsupportive of visual changes that would negatively affect the recreational setting, and are typically supportive of visual improvements that enhance their recreational experience.	Field; culvert; bermed overcrossing; industrial and power transmission lines in background
10	View from San Gabriel River Bike Path and San Gabriel River Trail, south of Slauson Ave (facing northeast)	Recreationists and bicyclists using the San Gabriel River Bike Path and San Gabriel River Trail	Recreational users: moderate	Recreational viewers typically focus on their recreational activity, are typically unsupportive of visual changes that would negatively affect the recreational setting, and are typically supportive of visual improvements that enhance their recreational experience.	San Gabriel River floodplain; concrete bridge overcrossing; power transmission lines; boxcars and small industrial structures
11	View from Metropolitan State Hospital/ Bloomfield Ave (facing east)	Travelers: motorists on Bloomfield Ave; recreationists using the facilities at Metropolitan State Hospital	Travelers: low Recreational users: moderate-low	Recreational viewers typically focus on their recreational activity, are typically unsupportive of visual changes that would negatively affect the recreational setting, and are typically supportive of visual improvements that enhance their recreational experience. Motorists and pedestrians are considered transitory and temporary viewers.	Industrial uses and parking area
12	View from Norwalk/ Santa Fe Springs Metrolink Station Parking Lot (facing east)	Travelers: commuters, transit riders, and others in proximity of the Norwalk/Santa Fe Springs Metrolink Station	Travelers: moderate	Motorists and pedestrians are considered transitory and temporary viewers.	Metrolink Station parking lot and station beyond

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
13	View from John Zimmerman Park (facing north/ northwest)	Recreationists at Zimmerman Park	Recreational users: moderate-high	Recreational viewers typically focus on their recreational activity, are typically unsupportive of visual changes that would negatively affect the recreational setting, and are typically supportive of visual improvements that enhance their recreational experience.	Playing fields edged with trees; and field lighting; industrial beyond
14	View from Tulare Ave and Fullerton Ave (facing northwest)	Residents along Tulare St and adjacent local roadways throughout the immediate vicinity	Residential viewers: moderate-high Motorists/ pedestrians: moderate	Residential viewers' visual preference is generally toward strong visual character because these viewers, on average, spend a majority of their lives in and around their homes. Motorists and pedestrians are considered transitory and temporary viewers.	Residential; fencing; railroad beyond

KVP = key viewpoint; N/A = not applicable

5.2.3 Visual Quality

As mentioned, land uses that typify this landscape unit vary, including single-family and relatively low-density multifamily residential neighborhoods, mobile-home communities, parks, trails, schoolyards, commercial businesses, and light industrial/manufacturing uses. Therefore, depending on the angle, location, preferences, and sensitivity of a viewer, visual quality is varied throughout this project section.

Ten KVPs were identified to represent typical views from common types of viewing areas, depicting the range of visual character and visual quality found in a landscape unit. The ten KVPs established in the Gateway Cities Landscape Unit are depicted on Figure 5-3.

Table 5-4 presents the ratings of the existing natural harmony, cultural order, and project coherence to determine the existing overall visual quality of KVPs 5 through 14.

Table 5-4 Gateway Cities Landscape Unit: Existing Visual Quality

Key Viewpoint	Natural Harmony	Cultural Order	Project Coherence	Overall Visual Quality
Gateway Cities Landscape Unit	**Moderate-low**	**Moderate-low**	**Moderate-low**	**Moderate-low**
5	Low	Low	Low	Low
6	Low	Low	Low	Low
7	Low	Low	Low	Low
8	Moderate-low	Moderate-low	Moderate-low	Moderate-low
9	Moderate-low	Moderate	Moderate-low	Moderate-low
10	Moderate	Moderate-low	Moderate-low	Moderate-low
11	Low	Low	Moderate	Moderate-low
12	Moderate	Moderate	Moderate	Moderate
13	Moderate	Moderate	Moderate	Moderate
14	Low	Low	Low	Low

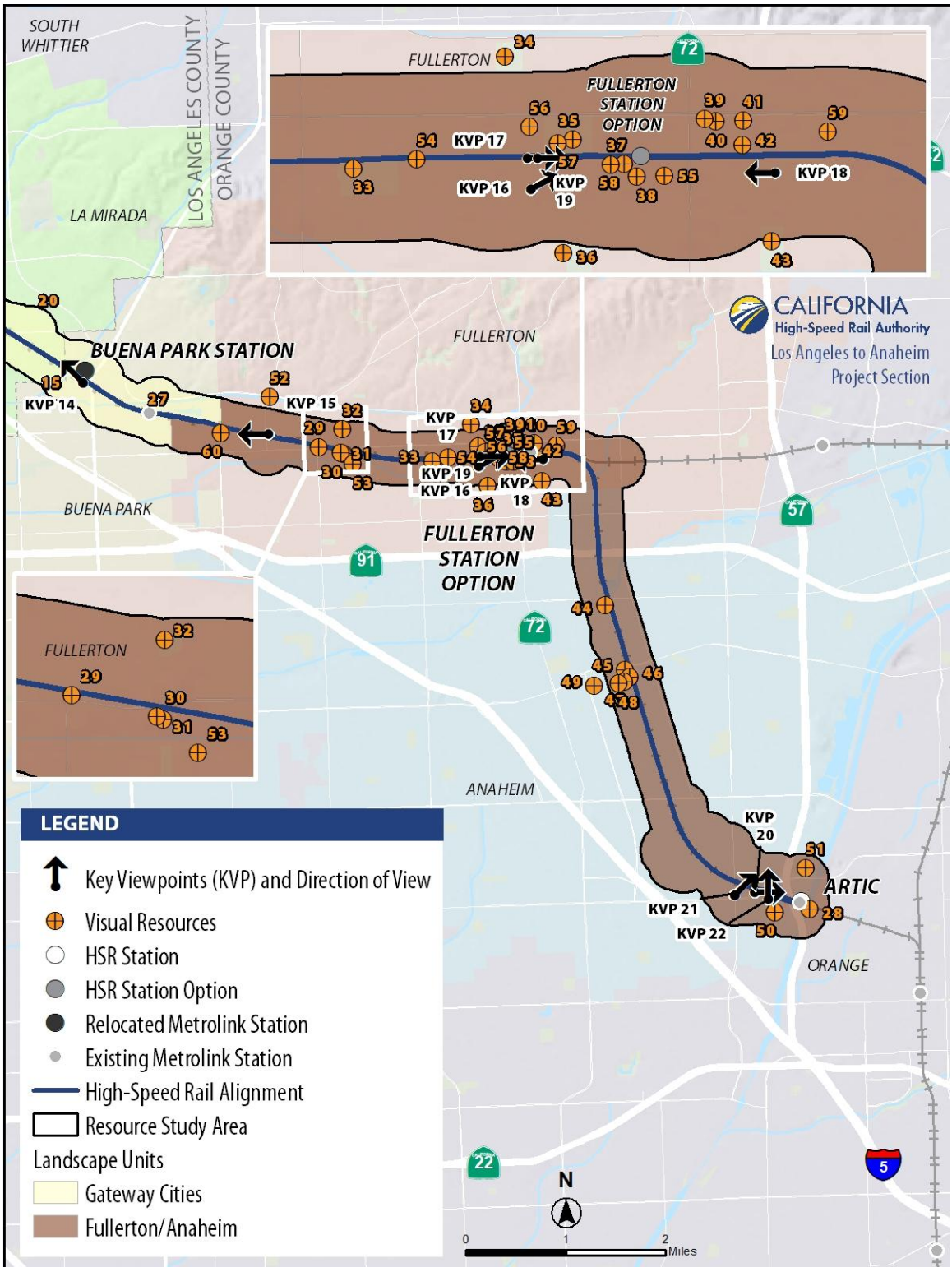
KVP = key viewpoint

5.3 Fullerton/Anaheim Landscape Unit

The Fullerton/Anaheim Landscape Unit encompasses the cities of Fullerton and Anaheim and includes a similar variety of land uses as the Gateway Cities Landscape Unit. Most land uses within the Fullerton/Anaheim Landscape Unit are commercial and residential. The visual character throughout the Fullerton/Anaheim Landscape Unit is typified by these land uses. Visual resources include street trees, vegetation, and other landscaped elements, as well as built structures that have historical/cultural merit, are architecturally significant, or are otherwise publicly valued. Below is a description of the noteworthy visual resources in the viewshed based on analysis of aerial and satellite mapping, site surveys, and review of policy documents.

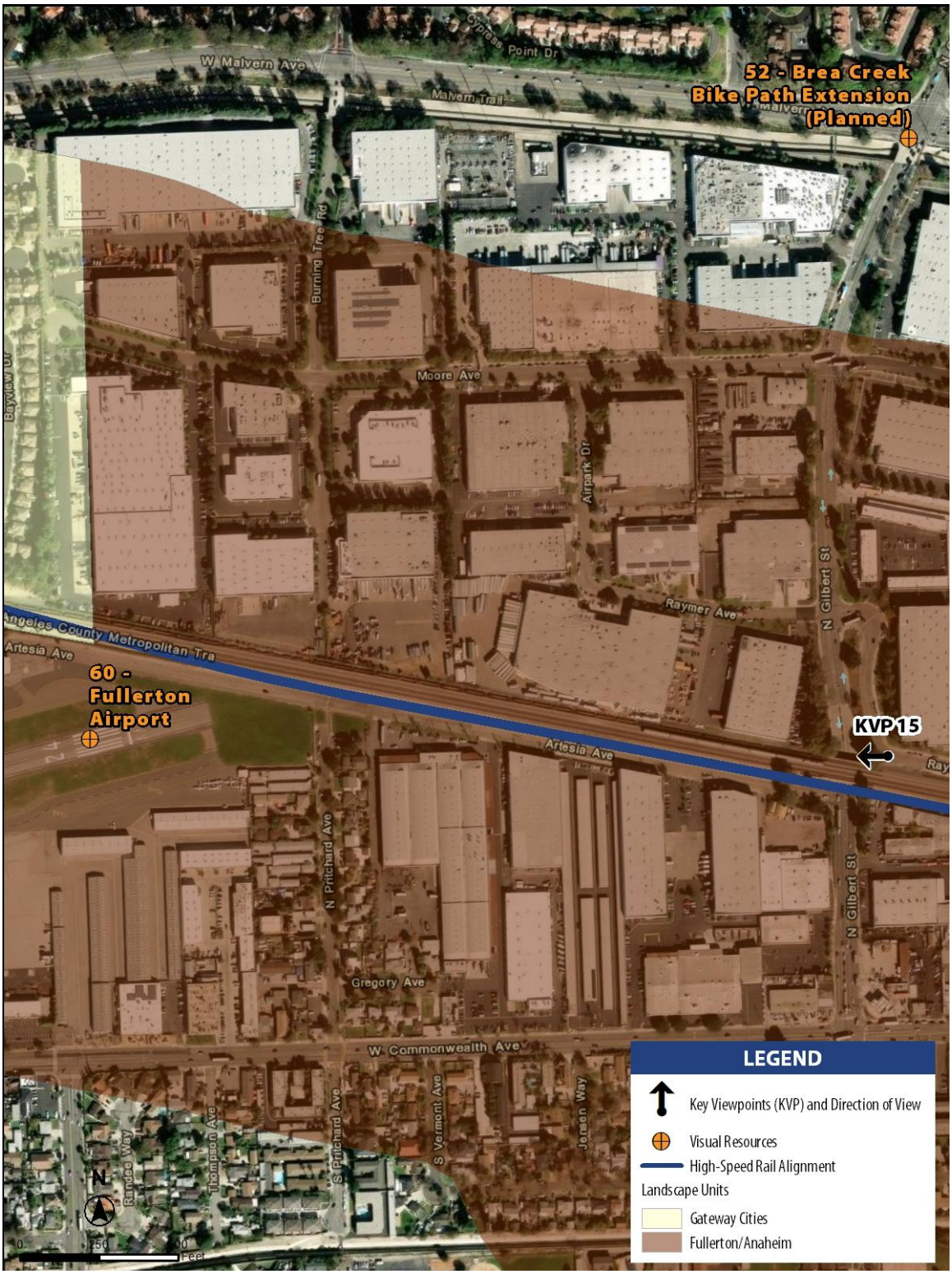
5.3.1 Existing Visual Resources and Visual Character

Visual resources that were identified throughout the Fullerton/Anaheim Landscape Unit are depicted on Figure 5-5 and Figure 5-6, sheets 1 through 9. The Fullerton/Anaheim Landscape Unit comprises a dense, urban setting with residential neighborhoods scattered throughout. Notable visual resources in this landscape unit include the Santa Ana River Trail, the identified historic property, and various cultural landmarks.



Sources: ESRI 2024

Figure 5-5 Visual Resources and Key Viewpoints in the Fullerton/Anaheim Landscape Unit, Overview



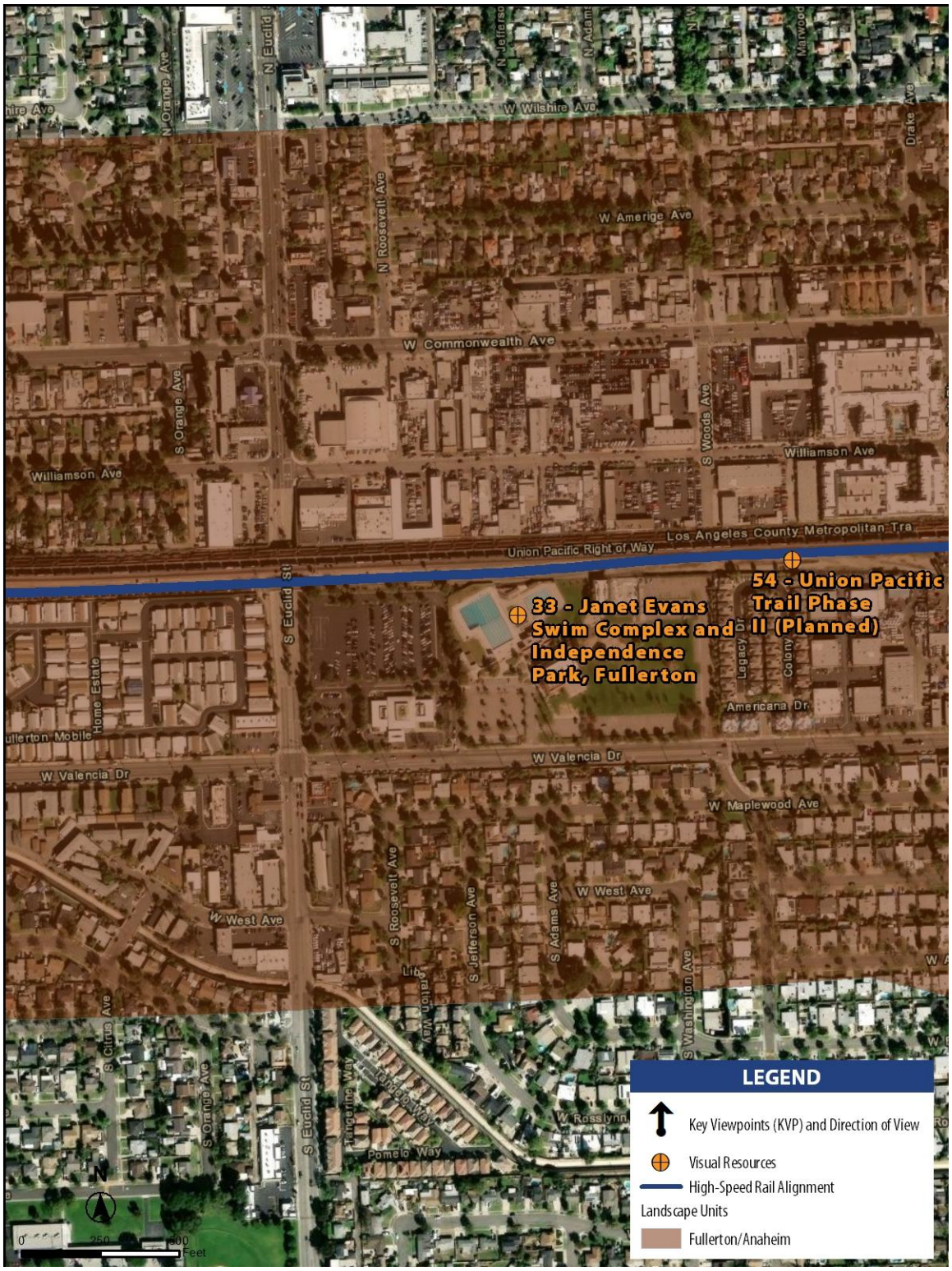
Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 1 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 2 of 9



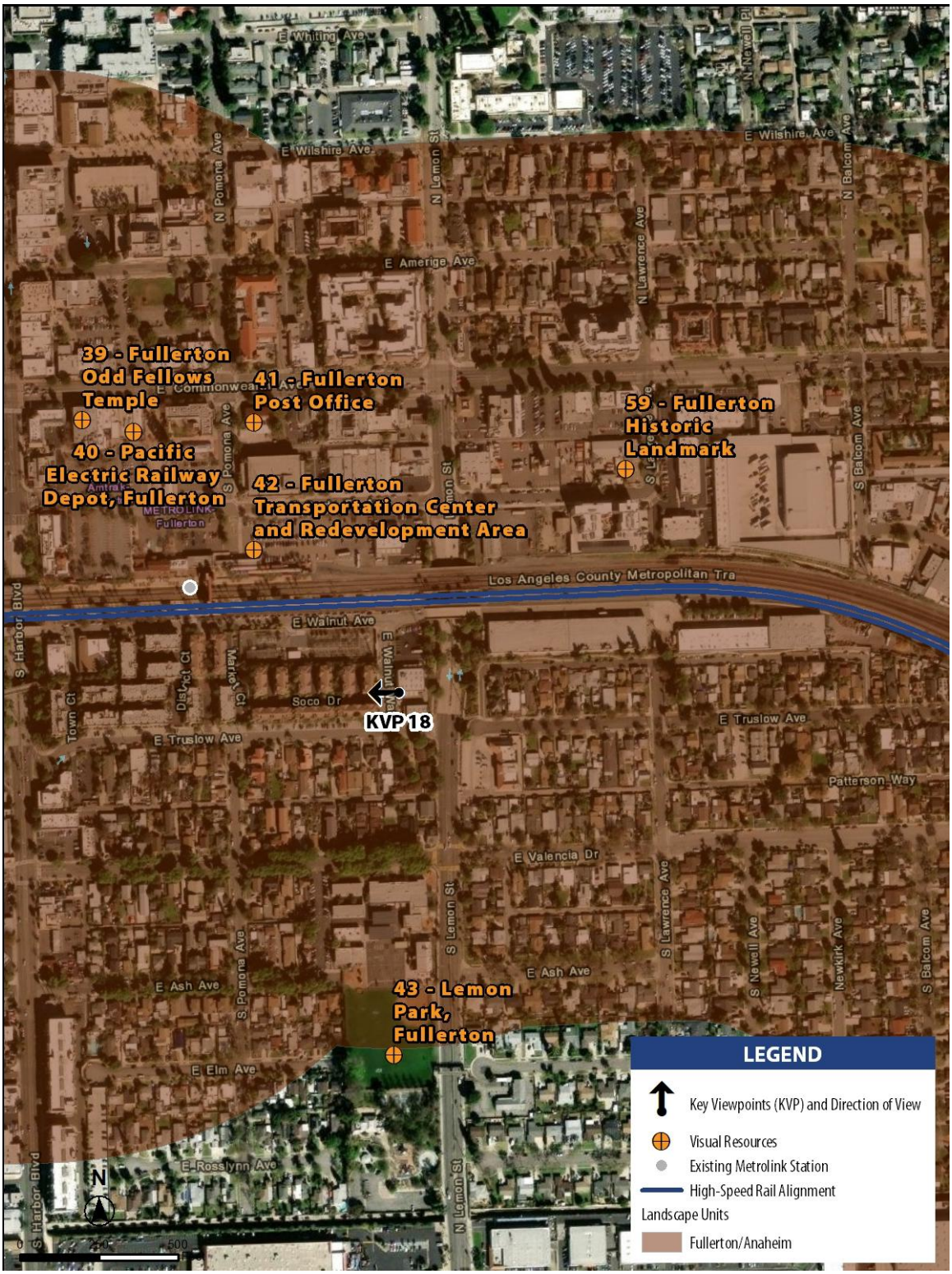
Sources: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 3 of 9



Sources: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 4 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 5 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 6 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 7 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 8 of 9



Source: ESRI 2024

Figure 5-6 Visual Resources in the Fullerton/Anaheim Landscape Unit, Sheet 9 of 9

5.3.1.1 Natural Visual Resources

28. Santa Ana River and Trail

The Santa Ana River begins in the San Bernardino National Forest in San Bernardino County and empties into the Pacific Ocean on the border of Newport Beach and Huntington Beach. In the viewshed, it forms the boundary between the city of Orange and the city of Anaheim. Although frequently dry, it can carry large amounts of water during heavy rainfall. Water released from Prado Dam upstream of the RSA is often ponded in settling basins in the portion of the river crossing through the RSA, forming maze-shaped ponds that are used to recharge groundwater, which is at relatively shallow depths under the river.

A recreational bicycle trail runs along the Santa Ana River for approximately 30 miles between approximately Prado Dam and the ocean. In the RSA, this path is paved with asphalt and grade-separated from cross traffic. It passes under the existing LOSSAN Corridor.



Source: Wikimedia Commons 2016c

5.3.1.2 Cultural Visual Resources

29. Val-Vita Food Products Company Headquarters, Fullerton

The former Val-Vita Headquarters property is a single-story office building designed in the Streamline Moderne style. The subject property appears to be NRHP eligible at the state level under Criterion C as a significant and highly intact example of Streamline Moderne design. Additionally, the subject building has historic significance relative to NRHP Criterion B for its association to the industrialist and noted art collector Norton Simon, who would go on to establish Hunt Foods & Industries, Inc.



Source: ICF 2016

30. Hunt Foods and Industries Office and Library, Fullerton

Completed in 1962, the six-story Hunt Foods & Industries office building and the nearby Hunt branch of the Fullerton library are present at either end of a long and continuous landscaped campus that has an Asiatic-inspired landscape theme and dark-stained aggregate walkways, many of which are slightly elevated. The administrative building served as the headquarters for Hunt Foods & Industries. The property is eligible for the NRHP and CRHR under Criteria B/2 and C/3 at the local level of significance. Contributing elements include architecture and landscape architecture. The Hunt Foods & Industries office building is identified by the City of Fullerton as a "Potential/ Possible Significant Property."



Source: ICF 2016

31. Fullerton Pooch Park, Fullerton

The 2-acre park includes separate areas for small and large dogs, a wood chip area, and benches.



Source: Google Earth 2016a

32. Adlena Park, Fullerton

The 3-acre park includes a softball field, basketball courts, a children's play area, a spray pool, picnic tables, a lighted baseball field, and barbecues.



Source: City of Fullerton 2016c

33. Janet Evans Swim Complex and Independence Park, Fullerton

Independence Park is home to the Janet Evans Swim Complex and includes a gymnasium, a skate park, picnic tables, and a playground. The swim complex includes two outdoor pools and locker room facilities. Activities include swimming lessons and organized sports. The park hosts a farmer's market on Wednesdays and is on the ocean side of the LOSSAN Corridor, between the LOSSAN Corridor and Valencia Drive, east of Euclid Street.



Source: City of Fullerton 2016a

34. Ford Park, Fullerton

The 3-acre park includes a children's play area, picnic tables, a baseball field, and barbecues.



Source: City of Fullerton 2016d

35. Amerige Park, Fullerton

Amerige Park contains a large sports facility, Duane Winters Field, and was once the spring training grounds for several Pacific Coast League baseball teams. The park includes a large, lighted baseball field with bleachers, soccer fields, tennis courts, horseshoe courts, and picnic facilities. It is on the inland side of the LOSSAN Corridor where it crosses Highland Avenue.



Source: City of Fullerton 2016b

36. Richman Park, Fullerton

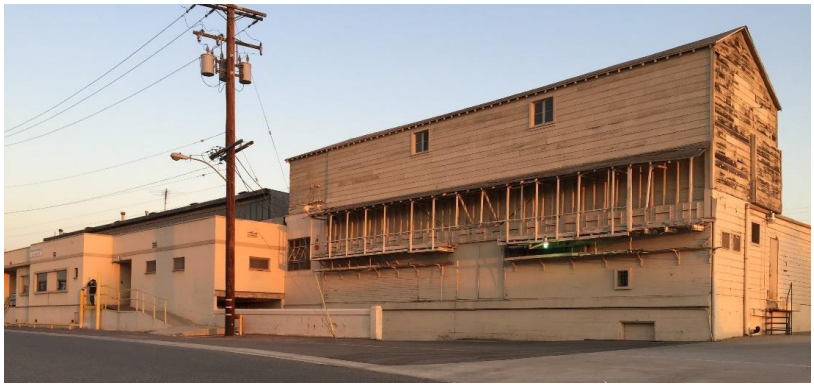
The 2-acre park includes a children's play area, a picnic pavilion, and a soccer field.



Source: City of Fullerton 2016e

37. Fullerton Mutual Orange Association Packing House

Originally built in 1925 by the Santa Fe Land Improvement Company and undergoing additions in 1952, the Fullerton Mutual Orange Association Packing House has direct associations to Fullerton's once-substantial citrus industry that renders the building NRHP eligible. Served by Santa Fe Rail siding and immediately across the sidings from the NRHP-listed Elephant Packing House, the Fullerton Mutual Orange Association is one of four remaining packing houses in the immediate vicinity.



Source: ICF 2016

38. Elephant Packing House, Fullerton

Designed in the Mission Revival Style, the 1924 Elephant Packing House was built by UPRR and is nearby rail right-of-way. The property is one of the last citrus packing houses in Fullerton, which was once a center for the citrus industry. It was listed on the NRHP in 1983.



Source: City of Fullerton 2016f

39. Fullerton Odd Fellows Temple

Completed in 1927, the Fullerton Odd Fellows Temple is a three-story brick commercial building with highly distinctive glazed pale pink and blue terra cotta tile across its façade's entirety. The Fullerton Odd Fellows Temple was listed on the NRHP in 2002.



Source: ICF 2016

40. Pacific Electric Railway Depot, Fullerton

Built in 1918, the Pacific Electric Railway Depot is a single-story, rectangular plan Mission Revival building, with its broad side perpendicular to Commonwealth Avenue. The station not only serviced passengers, but citrus; hence the loading dock. The Fullerton Pacific Electric Railway Depot was determined NRHP eligible in September 1979. The station was deemed significant at the local level for its associations to architecture, transportation, commerce, and community development. The property is also listed as a City of Fullerton Historic Landmark.



Source: ICF 2015

41. Fullerton Post Office

Completed in 1938, the Fullerton Post Office, a New Deal/Public Works Administration project, was designed by noted local architect Harry K. Vaughn, whose other local buildings include the Fullerton Junior College Campus and the Fullerton Public Library—today the Fullerton Museum. The Fullerton Post Office was listed on the NRHP in 2012.



Source: ICF 2016

42. Fullerton Transportation Center and Redevelopment Area

The Fullerton Transportation center and associated station comprises two historic depots (Fullerton Union Pacific Depot and Santa Fe Railway Passenger and Freight Depot), one built in

1923 by UPRR and the other built in 1930 by the Atchison, Topeka, and Santa Fe Railway. Completed in 1923, the Fullerton Union Pacific Depot is a Mission Revival depot that is prototypical for UPRR depots of the interwar era. It was listed on the NRHP in 1983. Completed in 1930, the Fullerton Santa Fe Railway Passenger and Freight Depot is of cast concrete in the Spanish Colonial Revival style. It was listed on the NRHP in 1992.

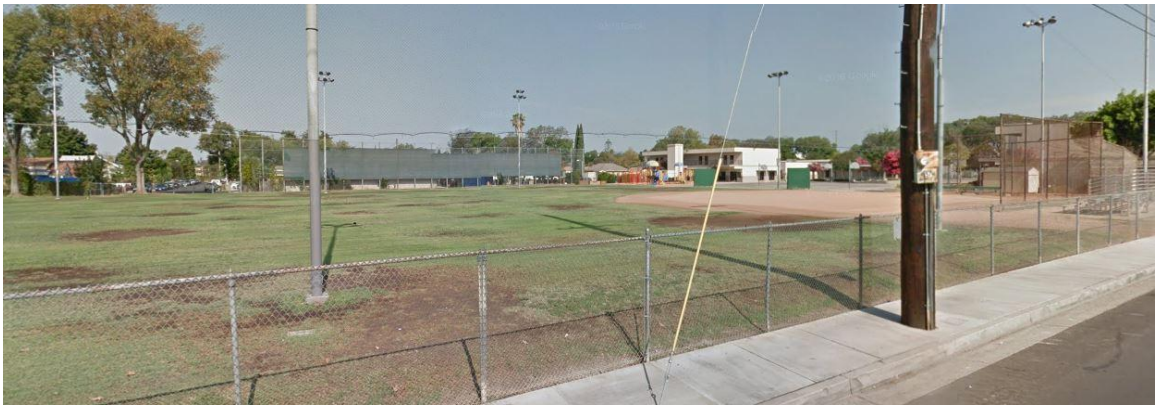
The UPRR depot is occupied by a restaurant, and the Santa Fe depot is used as an Amtrak ticket office, passenger waiting area, and café. The area surrounding the station is known as the Central Fullerton Redevelopment Area. This area includes high-density apartment complexes, retail space, and outdoor eating.



Source: ICF 2015

43. Lemon Park, Fullerton

The 5-acre park includes facilities for events including meeting rooms, a kitchenette, tables and chairs, and a patio.



Source: Google Earth 2016b.

44. Historic Palm District, Anaheim

Consisting of 516 total properties, the Historic Palm District has 181 contributing structures that are primarily single-family residences of various revival styles. The Historic Palm District was adopted by the Anaheim City Council in October 2006.



Source: ICF 2016

45. Union Pacific Railroad Depot, Anaheim

The 1923 Anaheim UPRR Depot is a one-story, Spanish Revival–themed train depot having stucco cladding, symmetrically placed arcades, and a centered, arched entry topped with an espadaña parapet. The subject property was relocated to its present location during the 1990s, when a substantial grade separation at Lincoln Avenue was built. The subject property was evaluated in 1978 and determined NRHP eligible at that time. The building's relocation necessitates the re-evaluation of the property relative to NRHP criteria.



Source: ICF 2015

46. Citrus Park, Anaheim

This small, linear park on the ocean side of the LOSSAN Corridor is between the LOSSAN Corridor and Atchison Street, and between Lincoln Avenue and Broadway. The park includes a gazebo, basketball courts, a volleyball court, a children's play area, and barbeque facilities.



Source: City of Anaheim 2016

47. Anaheim Colony Historic District

Anaheim Colony is a historic district in Anaheim. The original "Mother Colony" was bounded by North, South, East, and West Streets, and the present historic district is bordered by Harbor Boulevard, Sycamore Street, the BNSF rail corridor, and Santa Ana Street.



Source: ICF 2016

48. The Kroeger-Melrose Historic District, Anaheim

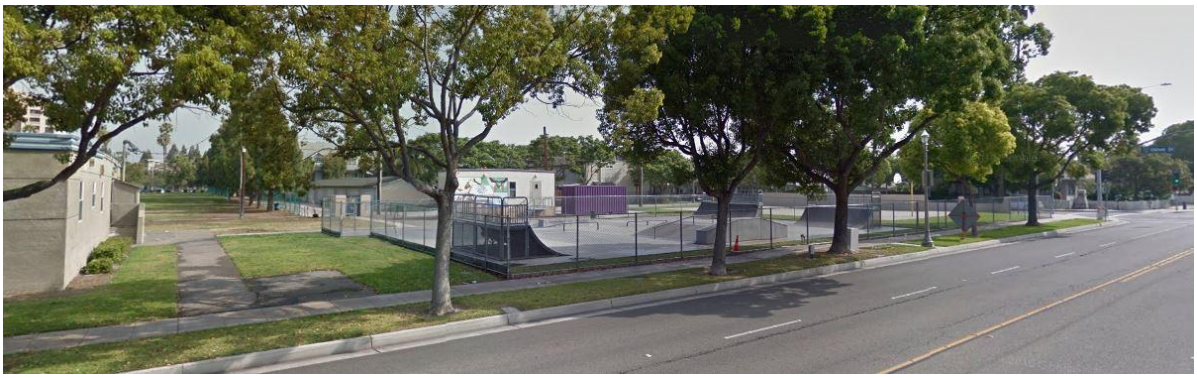
The Kroeger-Melrose Historic District contains 67 parcels on five streets south of Lincoln Avenue: Anaheim's primary commercial street. Located within the boundary of Anaheim's original city limits, the majority of the houses were built between 1900 and 1915. The Kroeger-Melrose Historic District strongly expresses the character of an early twentieth century middle-class neighborhood. The Kroeger-Melrose Historic District was listed on the NRHP in 1985.



Source: ICF 2016

49. Magnolia Park, Anaheim

The 1-acre park includes a children's play area, a group picnic shelter, benches, and a walking path.



Source: Google Earth 2016c

50. Angel Stadium of Anaheim and the Big A

Angel Stadium is the home of the Los Angeles Angels of Anaheim and is on the ocean side of the LOSSAN Corridor, across the tracks from the Honda Center. The stadium was opened in 1966 and underwent renovations in 1979–80 and 1996. Angel Stadium has a seating capacity of approximately 45,050. The stadium is open on the northeast side, facing the LOSSAN Corridor, providing views into the stadium.

Outside the stadium are the well-known “giant hats” (size 649½) at the main entrance (not visible from the LOSSAN Corridor side) and the Big A, a 230-foot-tall sign in the shape of the Angels’ logo, with a halo that lights up after an Angels win. The Big A is visible from the LOSSAN Corridor.

There is a permanent fireworks display area on the northeastern side of the stadium. Displays are generated for Saturday night home games and on other occasions.



Source: OCAEP 2016

51. Honda Center

The Honda Center is an entertainment and sports venue best known as the home of the National Hockey League’s Anaheim Ducks. It is on the inland side of the LOSSAN Corridor, near ARTIC. The building, designed by HOK Architects, was opened in 1991. It seats up to 18,325 for stage events (17,174 for hockey). The facility also has a 95-foot-tall marquee on the side facing State Route 57 and a slightly smaller marquee facing Katella Avenue.



Source: Wikipedia 2016b

52. Brea Creek Bastanchury Corridor (Planned)

The planned path includes a dedicated path for bicycling, walking, and running uses. The planned path will be located along Brea Creek in Fullerton and Buena Park.

53. Pacific Drive Elementary School

Pacific Drive Elementary School has a children's play area and basketball courts. The resource is publicly owned and is open to the public.

54. Union Pacific Trail Phase II (Planned)

The planned Union Pacific Trail Phase II would be located along the UPRR-owned rail corridor in Fullerton. The approximately 8.8-mile-long path would connect to the existing Union Pacific Trail to the east and would feature walking, bicycling, and running.

55. Union Pacific Park

Union Pacific Park is located along the rail line and features barbecues, basketball court, picnic tables, and a children's playground. This park is currently closed and undergoing a renovation project.

56. St. Mary's Catholic Church

Built in 1970, St. Mary's Catholic Church is a Late Modern-style church building designed by architect J. George Szeptycki, who designed numerous post-World War II churches in Southern California. The property is eligible for the NRHP and the CRHR for its high artistic value and as an excellent example of Szeptycki's Late Modern work. Its area of significance is architecture, with a 1970 period of significance. The building's character-defining features include its rectangular-plan, predominantly flat roof; shed-roofed front component; asymmetrical curved north (primary) elevation rising in height from east to west; blonde face brick veneers interrupted by vertically oriented stained-glass windows at the north, east, and west elevations; curved northwest corner with canopy-sheltered primary entrance; brick paved patio and short flight of steps with metal railings accessing to the primary entrance; metal sculpture of St. Mary at the west elevation; and the building's adjacent, tall steeple with a stylized cross affixed to the north side near the top. The property boundary is the church footprint, surrounding planters, and steeple.

57. Amerige Brothers' Real Estate Office

Located in Fullerton's Amerige Park, the Amerige Brothers' Real Estate Office building is a small vernacular wood-frame building built circa 1887 in Anaheim and relocated to Fullerton that served as a portable real estate office. The office is eligible for the NRHP and the CRHR at the local level of significance for the founding of Fullerton and the Southern California Real Estate Boom of 1886 to 1888. The period of significance is 1887 to 1889. The property is also listed as City of Fullerton Landmark HL-4. The subject property was the first building in the Townsite of Fullerton and provided for the Amerige Brothers to sell Townsite lots, which led to the creation of Fullerton. The building is significant for its role in the founding of Fullerton and as a rare example of a surviving building directly associated with real estate promotions and transactions that took place as part of the Southern California land boom of 1886 to 1888. The property's character defining features include the building's rectangular plan; wood tongue-in-groove siding; a front gabled roof covered in wood shingles and featuring a shaped parapet at the primary (north) elevation; symmetrical primary elevation with a central doorway secured by a partially glazed wood door flanked by wood windows; panels of vertical wood siding accent areas above the primary entry door and beneath the windows; large one-over-one, double-hung wood windows with simple wood surrounds and projecting subsills; and a shed-roofed canopy with turned wood supports and a shaped fascia at the primary elevation.

58. Fullerton Ice Company

Built in 1910, the Fullerton Ice Company is an exposed brick building that is believed to be the fourth oldest brick building in Fullerton. The property is NRHP and CRHR eligible at the local level

of significance for its associations with the early-twentieth-century refrigeration industry. Its area of significance is industry. The period of significance is 1910, the year of its construction, to 1958, the year that the Santa Ana freeway (Interstate 5) was completed through northern Orange County, fostering a new suburbanization that hastened the demise of the local citrus industry that this building primarily served. Later known as the Crystal Ice House, the business played a crucial local role in providing ice for traveling perishables leaving Fullerton before the advent of new refrigeration technologies after World War II. Character-defining features include the simply designed building with its flat roof, original wood-frame windows, and inset decorative brickwork near the parapet roof with brick dentil molding. An inset loading dock is also present.

59. Fullerton Historic Landmark

The landscape unit contains several buildings that are part of the Fullerton Historic Landmark, including 229 W Santa Fe Avenue (1922, 1928–1929), 227 W Santa Fe Avenue (1928), 125. W Santa Fe Avenue (1922), 119 W Santa Fe Avenue (1921), 118 E Commonwealth Ave (1927), and 343 E Santa Fe Avenue (1928). The buildings are representative of vernacular commercial architecture in the 1920s.

5.3.1.3 Project Visual Resources

60. Fullerton Airport

Fullerton Airport is on the ocean side of the LOSSAN Corridor. Its origins trace back to 1913, when barnstormers used a vacant site as a makeshift landing strip. The airport encompasses 86 acres between Artesia Boulevard (including where it fronts the LOSSAN Corridor) and Commonwealth Avenue and Dale Street and Pritchard Avenue. It can accommodate 600 planes.



Source: City of Fullerton 2016g

5.3.2 Viewers

As in the Downtown Los Angeles and Gateway Cities Landscape Units, because of the variety of land uses found throughout the RSA, there are a variety of viewers and viewer groups. Primary viewer groups in the Fullerton/Anaheim Landscape Unit include residents in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, and bicyclists that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment.

Table 5-5 identifies the locations and directions of views, viewer groups, viewer preferences, and visual resources considered for KVPs 15 through 22.

Table 5-5 Fullerton/Anaheim Landscape Unit: Existing Viewer Groups and Viewer Preferences

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
15	View from Raymer Ave at Gilbert St (facing west)	Industrial viewers: employees in industrial corridor along Raymer Ave Travelers on Raymer Ave	Industrial/ commercial users: low Motorists/ pedestrians: moderate-low	Motorists and pedestrians are considered transitory and temporary viewers. Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers.	Rail corridor; vegetation
16	View from Fullerton Metrolink Station (facing northeast)	Travelers: commuters, transit riders, and others near Fullerton Station	Motorists/transit riders: moderate	Motorists and transit riders are considered transitory and temporary viewers.	Railroad tracks and station
17	View from Fullerton Metrolink Station (facing east)	Travelers: commuters, transit riders, and others near Fullerton Station	Motorists/transit riders: moderate	Motorists and transit riders are considered transitory and temporary viewers.	Railroad tracks and station
18	View from Fullerton Metrolink Station (facing west-northwest)	Travelers: commuters, transit riders, and others near Fullerton Station	Motorists/transit riders: moderate	Motorists and transit riders are considered transitory and temporary viewers.	Railroad tracks and station
19	View from E Walnut Ave (facing east)	Travelers: motorists, commuters, cyclists, and pedestrians traveling along E Walnut Ave Commercial viewers: employees along E Walnut Ave	Motorists/ pedestrians: moderate Commercial viewers: moderate-low	Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers. Motorists and transit riders are considered transitory and temporary viewers.	Railroad tracks, roadway undercrossing; rail overcrossing; roadside vegetation

KVP	Location and Direction of View	Viewer Group	Viewer Sensitivity	Viewer Preferences	Visual Resources
20	View from State College Blvd and E Katella Ave (facing east)	Travelers: motorists, commuters, cyclists, and pedestrians traveling along State College Blvd Commercial viewers: employees along State College Blvd	Motorists/ pedestrians: moderate Commercial viewers: moderate-low	Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers. Motorists and transit riders are considered transitory and temporary viewers.	Roadway undercrossing; rail overcrossing; commercial; vegetated berm
21	View from S State College Blvd (facing northeast)	Travelers: motorists, commuters, cyclists, and pedestrians traveling along State College Blvd Residential viewers Commercial viewers: employees along State College Blvd	Motorists/ pedestrians: moderate-low Commercial viewers: low Residential viewers: moderate-high	Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers. Motorists and transit riders are considered transitory and temporary viewers.	Roadway; at-grade rail crossing; industrial uses; billboards
22	View from Angel Stadium of Anaheim parking lot north (facing north)	Commercial viewers: employees at Angel Stadium of Anaheim and throughout immediate vicinity Travelers: motorists, commuters, and transit riders	Motorists/ pedestrians: moderate Commercial viewers: moderate-low	Industrial/commercial viewers' visual preferences vary depending on the business and may be more aligned with retail, institutional, or industrial viewers' visual preferences than those of residential viewers. Motorists and transit riders are considered transitory and temporary viewers.	Parking area; rail corridor and office buildings beyond; palm trees and other vegetation

KVP = key viewpoint

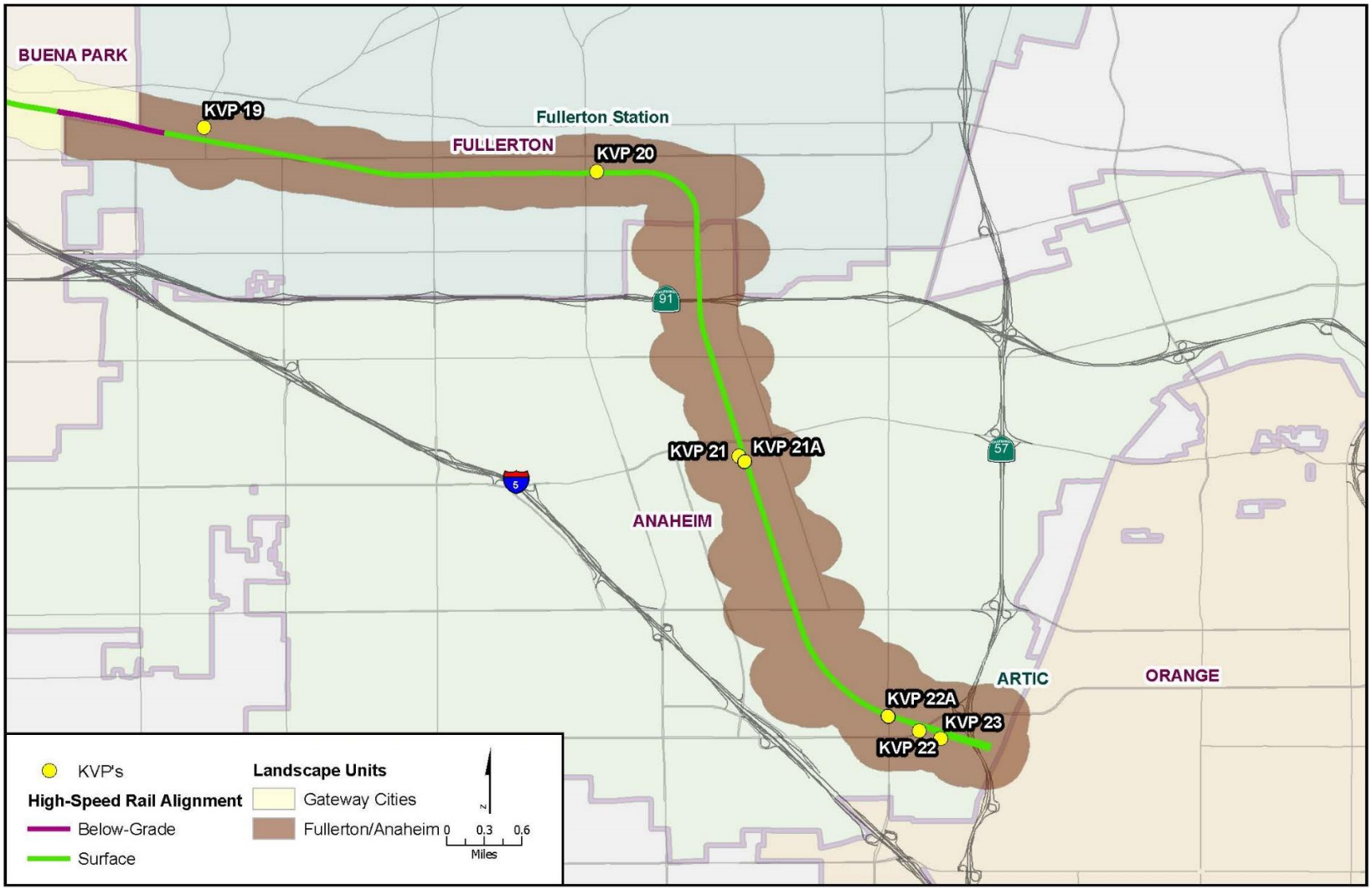
5.3.3 Visual Quality

Eight KVPs were identified to represent typical views from common types of viewing areas, depicting the range of visual character and visual quality found in a landscape unit. The eight KVPs established in the Fullerton/Anaheim Landscape Unit are depicted on Figure 5-5. Table 5-6 presents the ratings of the existing natural harmony, cultural order, and project coherence to determine the existing overall visual quality of KVPs 15 through 22.

Table 5-6 Fullerton/Anaheim Landscape Unit: Existing Visual Quality

Key Viewpoint	Natural Harmony	Cultural Order	Project Coherence	Overall Visual Quality
Fullerton/Anaheim Landscape Unit	**Moderate-low**	**Moderate-low**	**Moderate-low**	**Moderate-low**
15	Moderate-low	Moderate-low	Moderate	Moderate-low
16	Moderate	Moderate	Moderate	Moderate
17	Moderate	Moderate	Moderate	Moderate
18	Moderate	Moderate	Moderate	Moderate
19	Moderate	Moderate	Moderate-low	Moderate
20	Moderate	Moderate	Moderate	Moderate
21	Low	Low	Moderate-low	Low
22	Moderate-low	Moderate	Moderate-low	Moderate-low

KVP = key viewpoint



Source: ESRI 2024

Figure 5-7 Key Viewpoint Locations in the Fullerton/Anaheim Landscape Unit

6 EFFECTS ANALYSIS

6.1 Introduction

This section describes the visual character of the Shared Passenger Track Alternatives and uses the RSA and landscape units that were established, the 22 KVPs (presented on Figure 4-3), the inventory of specific visual resources, viewer groups, and the viewers' sensitivity to the change in visual character to analyze the overall visual quality after implementation of the project section. Visual simulations are used to depict the visual changes that would result from the introduction of the Shared Passenger Track Alternatives and form the basis for the *Overall Visual Quality Rating* and *Overall Visual Change* presented in Table 6-1, Table 6-2, and Table 6-3, which summarize the Shared Passenger Track Alternatives' visual effects by landscape unit.

6.2 No Project Alternative

Under the No Project Alternative, recent development trends are anticipated to continue, leading to ongoing viewer, visual resources, and visual quality impacts. Planned residential, industrial, commercial, and transportation projects would introduce in new developments in the RSA, resulting in direct and indirect impacts on viewers, visual character, and quality. These would also increase sources of nighttime light and glare, which could degrade nighttime views. In some locations, views toward open spaces, such as the Rio Hondo, the San Gabriel and Santa Ana River Trails, and Santa Ana River, may be reduced or blocked by new structures. In addition to new green field development on undeveloped or agricultural lands, redevelopment activities may result in the alteration of historic structures that add visual interest and contribute a unique character to the urban fabric.

The affected jurisdictions in the region would evaluate the aesthetic impacts of planned developments in the course of environmental review and require that projects incorporate visual measures to mitigate impacts. Developmental change under the No Project Alternative could result in indirect impacts on viewers, visual character, and visual quality.

Under the No Project Alternative, construction and operational impacts from noise, fugitive dust, and visual change would not occur. However, impacts on viewers, visual character, and visual quality through view- and surface-disturbing activity could persist through recent development trends. These trends are anticipated to continue and could potentially affect aesthetics and visual resources in the RSA. For example, the widening of transportation corridors would not necessarily degrade the visual quality of the area, but the indirect effects from increased development (to the extent permitted by local agencies) alongside these corridors, along with increasing billboard-type signage through the area, could result in the incremental degradation of views of the existing landscape. The extent of this alteration would vary depending on specific location. Collectively, these changes could substantially degrade visual quality from moderate to moderate-low or low in areas of generally moderate visual quality but with high-sensitivity viewers. Planned development and transportation projects that would occur under the No Project Alternative would likely include various forms of mitigation to reduce impacts on aesthetics and visual resources. These development activities include demolition, new construction, ground disturbance and compaction in construction and staging areas, accelerated erosion or increased flooding associated with changes in drainage patterns, and development of new borrow sites, and could lead to impacts on aesthetics and visual quality.

6.3 Project Impacts

6.3.1 Construction Effects

6.3.1.1 Visual Quality

Shared Passenger Track Alternative A

Visual quality impacts associated with project construction would occur during the 1- to 8-year construction period and would be particularly noticeable to recreationists and residents. The most intensive phases of project construction with the greatest potential to result in temporary impacts

on aesthetics and visual quality are expected in the first 5 years. The presence of construction materials, equipment, and on-site workers would alter the existing visual environment for the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units.

Construction activities could cause substantial visual intrusions in a given area for the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. Earthwork, rail bed or column and guideway construction, associated truck hauling, and other major material and equipment movement and storage could cause substantial visual intrusions in a given area, because these activities would be highly visible. Soil movement, such as grading or excavation, could involve the release of dust, which could affect visibility.

Construction staging areas would introduce discordant visual changes to their immediate surroundings within the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. Construction of HSR stations would require the establishment of a staging area and other construction activities, which would be temporary. Similarly, construction of maintenance and storage facilities would also require the establishment of a staging area and other construction activities, which would be temporary. Staging areas will be managed in accordance with the contractor's plan to minimize the potential adverse effects on adjacent sensitive uses. The contractor's plan will be prepared in compliance with applicable city, state, and federal regulations and standards. For example, project construction staging areas could be enclosed and screened.

Concrete batch plants, used to produce concrete for project construction, would be located within the project section right-of-way during construction. Given their extended use, they could create noticeable visual impacts near sensitive receptors, such as residents and recreationists. Construction activities may also involve the use of temporary structures (e.g., trailers, fencing, parking). However, because there are no designated scenic vistas (including protected views) or scenic highways within the RSA or visible from the RSA, construction activities would not affect a scenic vista or highway.

In the Downtown Los Angeles Landscape Unit, visual disturbance affecting viewers, visual character, and visual quality would result from construction activities and built features of the project, including the 26th Street LMF, tracks (including on aerial structures), electrification of tracks and TPSSs, landform changes, grade separations (overcrossings and undercrossings), security features (barriers, signage, and signal lights), radio towers (up to 100 feet tall), lighting, and landscaping and revegetation that would primarily be visible from bridges over the project alignment, the Los Angeles River and Bicycle Path and Planned Extension, and Redondo Junction; and from local roadways, sidewalks, and adjacent commercial, industrial, and a limited amount of residential buildings with view corridors toward the project alignment. Within the RSA, Olvera Street and Los Angeles Plaza Park and LAUS would not have views of construction because of the presence of the intervening built environment and mature landscaping, Similarly, construction activities would likely be undetectable in views from the downtown Los Angeles skyline because of distance and the intervening built environment and mature landscaping. Construction activity and equipment, including dump trucks, haul trucks, and cranes, could be partially visible from the upper stories of the Southern California Gas Company Administration Building (where lower-level views are blocked by the Southern California Gas Company Complex) and from portions of the Southern California Gas Company Complex with views of the project alignment between intervening warehouses. Construction staging areas would also be visible to passing travelers, visitors, and business employees.

For the Gateway Cities Landscape Unit, visual quality impacts affecting viewers and the overall visual character would result from construction activities and the introduction of permanent built features. These impacts would stem from modifications to the Norwalk/Santa Fe Springs Metrolink Station, relocation of the Commerce and Buena Park Metrolink Stations, and construction of the 26th Street LMF. Additional aspects contributing to impacts include installation of new and relocated tracks, track electrification (both at grade and on aerial structures), and development of supporting infrastructure (such as a TPSS, a paralleling station in Commerce, and a switching station in Santa Fe Springs). Other contributing aspects include landform

alterations, grade separations (overcrossings and undercrossings), roadway relocations and closures, and the addition of security features like barriers, signage, and signal lights. Visual impacts would also result from the installation of radio towers up to 100 feet tall, lighting systems, landscaping, and revegetation.

These visual changes would primarily be visible from bridges crossing the project alignment; local roadways, sidewalks, and nearby commercial, industrial, and residential buildings with views toward the project alignment; and the following visual resources:

- 13. Rio Hondo and Bicycle Path/River Trail
- 14. San Gabriel River and Bicycle Path/River Trail
- 15. Coyote Creek North Fork Bikeway (Existing) and Coyote Creek Main Branch Bikeway Extension (Planned)
- 18. Zimmerman Park
- 21. Shrimpton Manufacturing and Supply Company
- 22. Western Waxed Paper Company
- 23. Boulder Dam–Los Angeles 287.5-Kilovolt Transmission Line
- 24. Redondo Junction
- 25. Commerce Train Station
- 26. Norwalk/Santa Fe Springs Train Station
- 27. Buena Park Train Station

Construction of the 26th Street LMF would require removal of the Federated Metals Corporation property. In addition, Shared Passenger Track Alternative A would require installation of project elements along the existing railroad bridge over the Rio Hondo channel. This would require aerial and at-grade construction adjacent to the historic property. Project construction would also require a temporary encroachment onto the historic boundary. Bandini Park, Neff Park, and Windermere Park would not have views of construction because of the presence of the intervening built environment, soundwalls, and mature landscaping. Construction equipment, including dump trucks, haul trucks, and cranes, would be visible to viewers of the construction site. Construction staging areas would also be visible to passing travelers, visitors, and business employees.

As discussed above, construction of the 26th Street LMF would require removal of the Federated Metals Corporation property. The Federated Metals Corporation property is an important cultural visual resource for the purposes of this aesthetics analysis. However, the Federated Metals Corporation property is not NRHP eligible and, therefore, does not qualify as a historic resource. Although the removal of this property would introduce a visual change in the area, it would not result in a substantial alteration to the overall visual environment. This is because the proposed 26th Street LMF would be built adjacent to the existing railroad yard on the west bank of the Los Angeles River, where current BNSF storage tracks and other rail infrastructure dominate the visual landscape. Given the proximity of the 26th Street LMF to existing rail infrastructure, the scale and size of the LMF would be consistent with the surrounding visual landscape and would not substantially alter or degrade existing views. As such, removal of the Federated Metals Corporation property would not result in a substantial change to the overall visual character of the area.

Although the project elements and new crossing would be visible in the Rio Hondo channel, these structures are consistent with the types of transportation infrastructure that have historically been visible from the river channel. As such, the new visual elements would not change the character of the historic property's use or result in changes to the physical setting in a manner that would substantially impair the protected features, activities, or attributes of the Rio Hondo channel. In addition, although construction activities would result in new visual elements on the Hunt Foods

and Industries property, they would not cause physical destruction of, damage to, or alteration of this historic property.

For the Fullerton/Anaheim Landscape Unit, visual quality impacts affecting both viewers and overall visual character would result from project-related construction activities and permanent features. These impacts would stem from modifications at Fullerton Metrolink/Amtrak Station that would primarily be visible from bridges crossing the project alignment; local roadways, sidewalks, and nearby commercial, industrial, and residential buildings with views toward the project alignment; and from the following visual resources:

- 28. Santa Ana River and Trail
- 29. Val-Vita Food Products Company Headquarters
- 30. Hunt Foods and Industries Office and Library
- 31. Fullerton Pooch Park
- 33. Janet Evans Swim Complex and Independence Park
- 35. Amerige Park
- 37. Fullerton Mutual Orange Association Packing House
- 38. Elephant Packing House
- 39. Fullerton Odd Fellows Temple
- 40. Pacific Electric Railway Depot, Fullerton
- 41. Fullerton Post Office
- 44. Historic Palm District, Anaheim
- 45. Union Pacific Railroad Depot, Anaheim
- 46. Citrus Park, Anaheim
- 47. Anaheim Colony Historic District
- 48. Kroeger-Melrose Historic District, Anaheim
- 50. Angel Stadium of Anaheim and the Big A
- 51. Honda Center
- 52. Brea Creek Bastanchury Corridor (Planned)
- 53. Pacific Drive Elementary School
- 54. Union Pacific Trail Phase II (Planned)
- 55. Union Pacific Park
- 57. Amerige Brothers' Real Estate Office
- 58. Fullerton Ice Company
- 59. Fullerton Historic Landmark
- 60. Fullerton Airport

The Fullerton Train Station and Redevelopment Area would be modified to accommodate the project. Additionally, minor utility relocation is proposed on the Hunt Foods and Industries property. Adlena Park, Ford Park, Richman Park, St. Mary's Catholic Church, Lemon Park, and Magnolia Park would not have views of construction because of the presence of the intervening built environment, soundwalls, and mature landscaping.

Shared Passenger Track Alternative A will incorporate aesthetic guidelines for the HSR infrastructure in the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units that include approaches to integrate structures within a community and to reduce the intrusiveness of large, elevated structures, reducing impacts on views (**AVQ-IAMF#1, Aesthetic Options**). Refer to *Aesthetic Options for Non-Station Structures* (Authority 2017). Prior to construction, the contractor will document that the Authority's aesthetic review process has been followed (**AVQ-IAMF#2, Aesthetic Review Process**). In addition, soil movement during construction, such as grading, excavation, and import or export by truck, could cause the release of dust, which could impair visibility. **AQ-IAMF#1, Fugitive Dust Emissions**, will be incorporated to avoid substantial visibility effects from dust. **AQ-IAMF#1** requires the contractor to prepare a fugitive dust control plan that identifies measures such as covering all materials transported on public roads, watering exposed graded surfaces, and stabilizing all disturbed graded areas. Site managers would conduct regular site inspections to ensure that staging areas are clean and orderly, to the extent practicable, and that construction debris is removed from public rights-of-way and adjacent properties/roadway.

Once construction is complete, construction equipment would be removed, and construction staging areas and temporary structures would be dismantled. However, the areas disturbed by construction would require remediation to prevent substantial changes to views, visual character, and visual quality and the diminishment of natural harmony, cultural order, and project coherence. Additionally, the proposed construction activities would contribute to a substantial change in overall visual quality in the vicinity of the four historic bridges in the Downtown Los Angeles Landscape Unit. Permanent visual elements that would be introduced during the construction period and remain after the completion of construction, such as columns and elevated guideway structures, are evaluated in Section 6.3.2, Operational Effects, and are factored into the *Overall Visual Quality Rating*, *Overall Visual Change*, and *Visual Effects* rankings presented in Table 6-1, Table 6-2, and Table 6-3.

Shared Passenger Track Alternative B

Shared Passenger Track Alternative B would not include the LMF at 26th Street and, therefore, would not require the removal of the Federated Metals Corporation property. Nevertheless, there would be a change to the visual landscape because of construction of the 15th Street LMF adjacent to existing rail infrastructure. Construction of the 15th Street LMF would require that existing big-box warehouses be removed.

Although Shared Passenger Track Alternative B would result in fewer localized impacts at 26th Street, because it would avoid the removal of the Federated Metals Corporation property and associated construction activity at that location, both alternatives would result in similar visual impacts from construction of an LMF.

Construction under this alternative would require similar construction equipment, affect similar viewers, and affect visual character within the RSA similar to that described for Shared Passenger Track Alternative A. Overall, visual quality impacts for Shared Passenger Track Alternative B during construction would be similar to those described for Shared Passenger Track Alternative A within the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. Impacts would be reduced by incorporation of **AVQ-IAMF#1**, **AVQ-IAMF#2**, and **AQ-IAMF#1**.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With the inclusion of the Norwalk/Santa Fe Springs HSR Station Option in the Gateway Cities Landscape Unit, HSR station platform and facilities would be built along with the modifications required at the existing Metrolink Station, but the impacts would be similar to those occurring under Shared Passenger Track Alternative A. Construction would involve various equipment including dump trucks, haul trucks, and cranes. These would be visible to viewers of the construction site. Construction staging areas would also be visible to primary viewer groups including nearby residents, employees and visitors to businesses, motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers on local roadways. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and, therefore, lower sensitivity because the nature of their work typically limits both the duration and relevance of views of the surrounding landscape. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and are considered to have a lower sensitivity because they experience the environment only briefly and in passing. However, residents would have a higher awareness of visual changes in the environment and are also considered to have a higher sensitivity because of their consistent, long-term exposure to the landscape, making changes in visual quality substantially more noticeable. The exposure of most of these viewer groups is shorter in duration, except in residential areas where the duration is longer. Overall, given viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Gateway Cities Landscape Unit would be predominantly low to moderate-low, except where recreational and residential viewers are present, and in that case viewer sensitivity would be moderate to moderate-high. Visual quality impacts that affect viewers, visual character, and visual quality would result from the construction activities and built features. As described for

the Gateway Cities Landscape Unit, effects of the station option on viewers, visual character, and visual quality will be partially reduced through incorporation of **AVQ-IAMF#1**, **AVQ-IAMF#2**, and **AQ-IAMF#1**. However, the areas disturbed by construction would require remediation.

High-Speed Rail Station Option: Fullerton

With the inclusion of the Fullerton HSR Station Option in the Fullerton/Anaheim Landscape Unit, HSR station platform and facilities would be built along with the modifications required at the existing Fullerton Metrolink/Amtrak Station, but the impacts would be the same as those occurring under the Shared Passenger Track Alternatives in the station area. The Fullerton HSR Station Option would introduce additional elements at the site compared to the Shared Passenger Track Alternatives, including HSR station buildings, a facility power station, roadway modifications, and a parking structure, and the construction area under the Fullerton HSR Station Option would be larger than that for the Shared Passenger Track Alternatives. However, construction of both the Fullerton HSR Station Option and Shared Passenger Track Alternatives would require similar equipment, including dump trucks, haul trucks, and cranes. Viewers of the Fullerton HSR Station Option construction site would be the same as those described for the Shared Passenger Track Alternatives. Construction staging areas would also be visible to primary viewer groups include nearby residents, employees and visitors to businesses, motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers on local roadways. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and, therefore, lower sensitivity because the nature of their work typically limits both the duration and relevance of views of the surrounding landscape. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and are considered to have a lower sensitivity because they experience the environment only briefly and in passing. However, residents would have a higher awareness of visual changes in the environment and are also considered to have a higher sensitivity because of their consistent, long-term exposure to the landscape, making changes in visual quality substantially more noticeable. Exposure of most of these viewer groups is shorter in duration, except in residential areas where the duration is longer. Overall, given viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Fullerton/Anaheim Landscape Unit would be predominantly moderate-low to moderate, except where residential viewers are present and viewer sensitivity would be moderate-high. Visual disturbance affecting visual quality during construction would be similar to that described for the Shared Passenger Track Alternatives in all of the landscape units. Effects of the station option will be partially reduced through incorporation of **AVQ-IAMF#1**, **AVQ-IAMF#2**, and **AQ-IAMF#1** to substantially avoid or address impacts on viewers, visual character, and visual quality. However, the areas disturbed by construction would require remediation.

6.3.1.2 Nighttime Lighting

Shared Passenger Track Alternative A

Project construction nighttime activities would alter the existing visual environment for the time period of construction, approximately 1 to 8 years. This would include construction nighttime activities associated with the 26th Street LMF. Visual disturbance affecting viewers, visual character, and visual quality would result from the construction lighting features in the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units.

Introduction of light and glare from construction activities would lead to substantial, but temporary, aesthetic degradation of the following four historic bridges within the Downtown Los Angeles Landscape Unit: First Street Bridge, Fourth Street Bridge, Seventh Street Bridge, and Olympic Boulevard Bridge. The construction-related light and glare would conflict and contrast with the visual character of these bridges and would substantially affect their scenic values.

Construction activities and built features require nighttime lighting that would disturb viewers, visual character, and visual quality. Effects of Shared Passenger Track Alternative A will be partially reduced in these locations through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or minimize light and glare impacts on viewers, visual character, and visual

quality. Even with application of these IAMFs, intrusive nighttime lighting necessary for construction would occur.

Shared Passenger Track Alternative B

Shared Passenger Track Alternative B would introduce light and glare that could result in visual disturbance that affects viewers, visual character, and visual quality because of the construction lighting features in the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. These effects would be similar to those of Shared Passenger Track Alternative A, with two exceptions. At Olympic Boulevard Bridge, impacts would be slightly more intense because of the larger area of disturbance associated with construction of the 15th Street LMF. At 26th Street, impacts would be slightly reduced without construction of the 26th Street LMF.

Although Shared Passenger Track Alternative B would still include construction activities at 26th Street, the absence of the 26th Street LMF would reduce the extent of construction activities at this location. As a result, nighttime lighting requirements at 26th Street under Shared Passenger Track Alternative B would be slightly reduced because of the smaller construction footprint and construction activities requiring nighttime lighting.

Although overall visual impacts would be comparable in all landscape units, Shared Passenger Track Alternative B would reduce visual impacts at 26th Street because of the reduction of nighttime lighting during project construction at this location.

Construction activities and built features require nighttime lighting that would disturb viewers, visual character, and visual quality. Effects of Shared Passenger Track Alternative B will be partially reduced in these locations through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or minimize light and glare impacts on viewers, visual character, and visual quality. Even with application of these IAMFs, intrusive nighttime lighting necessary for construction would occur.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option in the Gateway Cities Landscape Unit, an HSR station platform and facilities would be built along with the modifications required at the existing Metrolink Station, but the impacts would be similar to those occurring under Shared Passenger Track Alternative A. The existing Norwalk/Santa Fe Springs Station is considered to be a project visual resource, and there are residential land uses nearby, which have the potential to be affected by nighttime construction activities. Construction activities and built features require nighttime lighting that would disturb viewers, visual character, and visual quality in the Gateway Cities Landscape Unit. Effects of the station option will be partially alleviated in these locations through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or minimize light and glare impacts on viewers, visual character, and visual quality. Even with application of these IAMFs, intrusive nighttime lighting necessary for construction would occur.

High-Speed Rail Station Option: Fullerton

With the inclusion of the Fullerton HSR Station Option, the HSR station platform and facilities would be built along with the modifications required at the existing Metrolink/Amtrak Station, but the impacts would be similar to those occurring under Shared Passenger Track Alternative A. As depicted on Figure 5-5, the Fullerton Metrolink/Amtrak Station is in proximity to several cultural visual resources that have the potential to be affected by nighttime construction activities, including but not limited to Amerige Park, Fullerton Mutual Orange Association Packing, Elephant Packing House, Pacific Electric Railway Depot, and the Fullerton Train Station and Redevelopment Area. In addition, there are residential land uses nearby, which have the potential to be affected by nighttime construction activities. Construction activities and built features require nighttime lighting that would disturb viewers, visual character, and visual quality in the Fullerton/Anaheim Landscape Unit. Effects of the station option will be partially alleviated in these locations through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or

minimize light and glare impacts on viewers, visual character, and visual quality. Even with application of these IAMFs, intrusive nighttime lighting necessary for construction would occur.

6.3.1.3 Viewer Sensitivity

As discussed in Section 5.1, Downtown Los Angeles Landscape Unit, primary viewer groups in the Downtown Los Angeles Landscape Unit include employees and visitors to businesses throughout the downtown Los Angeles industrial corridor. Other viewer groups include travelers (motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment), as well as residents that live close by. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and, therefore, lower sensitivity. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and, therefore, are also considered to have a moderate-low sensitivity. Most occupants of the larger-scale residence buildings that are in the immediate vicinity of the rail corridor in this landscape unit, particularly between First Street and Washington Boulevard, are familiar with these industrial-type views. However, residents have a higher sense of ownership of views. Therefore, both their awareness and sensitivity to project changes would be moderate. Generally, viewer sensitivity for these groups would range from low to moderate.

As discussed in Section 5.2, Gateway Cities Landscape Unit, primary viewer groups in the Gateway Cities Landscape Unit include residents/recreationists in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment. Generally, viewer sensitivity for commuters and haulers would likely be low to moderate-low, whereas more sensitive viewers, such as residents, might have a moderate-high adverse reaction to construction activities and the presence of construction equipment and materials, which are usually considered to be a visual nuisance. Viewer reactions would vary based on the nature of and available sightline to/from existing views, viewer proximity to proposed built elements, and individual sensitivity. How a neighborhood looks is often a contributing factor for people choosing to live in a certain location. As a result, residential viewers generally have a preference to maintain the existing landscape in, and surrounding, their neighborhood as is.

As discussed in Section 5.3, Fullerton/Anaheim Landscape Unit, primary viewer groups in the Fullerton/Anaheim Landscape Unit include residents in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, and bicyclists that use local roadways and thoroughfares that are parallel to, traverse, or are otherwise adjacent to the existing railway and proposed alignment. As mentioned, generally viewer sensitivity for industrial/commercial workers and travelers would likely be low, whereas more sensitive viewers, such as residents, might have a moderate-high adverse reaction to construction activities and the presence of construction equipment and materials, which are usually considered visually obtrusive. Again, residential viewers generally prefer to maintain the existing landscape in, and surrounding, their neighborhood as is.

Overall, however, despite the potential for higher viewer exposure because of their proximity to the rail corridor, given the viewers' familiarity with the existing LOSSAN Corridor and existing rail stations (Norwalk/Santa Fe Springs, Fullerton, and ARTIC, as well as Commerce and Buena Park), as well as the temporary nature of construction, viewer sensitivity throughout the project section would be low to moderate-low.

6.3.2 Operational Effects

Operation of the Shared Passenger Track Alternatives would include the operation of trains and inspection and maintenance along the track at LMFs and along the railroad right-of-way, as well as on the structures, fencing, power system, train control, electric interconnection facilities, and

communications. Project operation would affect viewers, visual character, and visual quality, as summarized below:

- Degradation of natural harmony, cultural order, or project coherence caused by:
  - Flashing signal lighting and movements of security features on historic bridges (including lighting, signage, and equipment and slowed or stopped vehicles and pedestrians) diminishing the natural harmony, cultural order, or project coherence of the historic bridges
  - Visibility of inspection and maintenance crews, vehicles, and equipment along the track and railroad right-of-way temporarily diminishing the visual character and quality of the affected sites
  - Visible lighting, signage, and discordant elements associated with maintenance of right-of-way lighting, structures, fencing, power system, train control, electric interconnection facilities, and communications facilities

In this project section, the overall visual change expected throughout each landscape unit is generally described first, followed by a detailed analysis of the *Visual Change*, *Viewer Sensitivity*, and *Visual Quality* by KVP. Visual effects are summarized in Table 6-1, Table 6-2, and Table 6-3.

The maintenance and operational activities would alter the existing visual environment for the life of the system. These alterations would include increased activity along the rail corridor, new and expanded stations with greater transit and commuter activity, and signal lights. Effects of the Shared Passenger Track Alternatives will be partially alleviated by implementation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or minimize impacts on viewers, visual character, and visual quality. Where needed, mitigation measures detailed in the Draft EIR/EIS will further reduce effects.

6.3.2.1 Visual Quality During Operation

Shared Passenger Track Alternative A

Downtown Los Angeles Landscape Unit

Four KVPs have been identified to represent typical views and viewers from common types of viewing areas, depicting the range of existing visual character and visual quality found in the Downtown Los Angeles Landscape Unit. Photographs of the existing conditions at these KVPs and simulations of the conditions under Shared Passenger Track Alternative A are depicted on Figure 6-1 through Figure 6-8.

Visual Changes

Visual changes in the Downtown Los Angeles Landscape Unit as a result of operation would include train movements, train lighting, activities at the LMF, security lighting, and signal lights.



Figure 6-1 Key Viewpoint 1: Existing View from E Cesar Chavez Avenue (Facing Southeast)



Figure 6-2 Key Viewpoint 1: Visual Simulation from E Cesar Chavez Avenue (Facing Southeast)



Figure 6-3 Key Viewpoint 2: Existing View from Mozaic at Union Station Apartments (Facing Southeast)



Figure 6-4 Key Viewpoint 2: Visual Simulation from Mozaic at Union Station Apartments (Facing Southeast)



Figure 6-5 Key Viewpoint 3: Existing View from First Street at the Los Angeles River (Facing Southwest)



Figure 6-6 Key Viewpoint 3: Visual Simulation from First Street at the Los Angeles River (Facing Southwest)



Figure 6-7 Key Viewpoint 4: Existing View from north of Fourth Street at the Los Angeles River (Facing South)



Figure 6-8 Key Viewpoint 4: Visual Simulation from north of Fourth Street at the Los Angeles River (Facing South)

Viewer Sensitivity

The primary viewer groups in the Downtown Los Angeles Landscape Unit include employees and visitors to businesses throughout the downtown Los Angeles industrial corridor. Other viewer groups include motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers on local roadways. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and, therefore, lower sensitivity because the nature of their work typically limits both the duration and relevance of views of the surrounding

landscape. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and are also considered to have a lower sensitivity because they experience the environment only briefly and in passing. Overall, given the viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Downtown Los Angeles Landscape Unit would be low to moderate-low. The exception to this would be the higher sensitivity of pedestrian, bicycle, and automobile viewers at the historic bridges.

Visual Character and Visual Quality

Project train and maintenance facility operational activities would alter the existing visual environment. These alterations would include increased activity along the rail corridor, new and expanded stations with greater transit and commuter activity, and signal lights. Effects of the project will be partially alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or address impacts on viewers, visual character, and visual quality.

An evaluation was made of operational impacts from the four KVPs in the Downtown Los Angeles Landscape Unit. During project operations, changes to the visual quality in the Downtown Los Angeles Landscape Unit would occur. As depicted on Figure 6-1, KVP 1, the existing view is dominated by the channelized roadway corridor that is enclosed by the tall roadside trees and tall office buildings. The bridge acts to obscure views of features beyond the structure. The OCS is present over the rail line in the existing view. During operation, the bridge and safety fencing would look the same as existing conditions, as depicted on Figure 6-2. The proposed OCS would be more apparent in the view but would not be dominant or substantially detract from quality of views.

As depicted on Figure 6-3, KVP 2, the existing elevated tracks at LAUS act to partially obscure views of the lower levels of the buildings east of the rail line. In addition, stopped trains further contribute to the obstruction of views of the lower levels of the buildings. During operation, the proposed retaining wall and shade structure would obstruct slightly more of the adjacent buildings, but views would remain consistent and in keeping with existing conditions and would not substantially detract from quality of views, as depicted on Figure 6-4.

As depicted on Figure 6-5, KVP 3, the existing rail line and fencing appear old and there are seven tracks. The concrete-lined river, lattice steel transmission lines, adjacent industrial development and associated storage yards, and tall light posts associated with industrial development dominate existing views. During operation, there would be fewer tracks that would reduce visual clutter associated with the rail corridor, as depicted on Figure 6-6. The new fencing and ballast rock would slightly improve the quality of views by replacing old and worn features that are degrading with new materials. The proposed OCS would not detract from views because of the existing number of visual intrusions associated with utilities already present in the view.

As depicted on Figure 6-7, KVP 4, the existing rail line and fencing appear old and there are several tracks, similar to the view in KVP 3. Like KVP 3, the concrete-lined river, adjacent industrial development and associated storage yards, and tall light posts associated with industrial development dominate views and the new Sixth Street bridge is a focal point in this view because of its unique design. During operation, there would be fewer tracks that would reduce visual clutter associated with the rail corridor, as depicted on Figure 6-8. The new fencing and ballast rock would slightly improve the quality of views by replacing old and worn features that are degrading with new materials. The proposed OCS would not detract from views because of the existing number of visual intrusions associated with utilities already present in the view. As presented in Table 6-1, the visual quality effects of Shared Passenger Track Alternative A at the KVPs in the Downtown Los Angeles Landscape Unit would be neutral because of the moderate-low to low visual quality change and the moderate to low viewer sensitivity to change. The overall visual quality effect would be compatible and neutral in this landscape unit.

Substantial aesthetic degradation resulting from discordant operational view elements would occur from operational activities (train movement and maintenance facility operations) and the moving security features such as signal lights, which are inconsistent with the historic bridges, on the four historic bridges in this landscape unit: First Street Bridge, Fourth Street Bridge, Seventh Street Bridge, and Olympic Boulevard Bridge. Operations-related visual disturbance affecting

viewers, visual character, and visual quality would also result in the Downtown Los Angeles Landscape Unit at locations other than those of the historic bridges.

The 26th Street LMF is proposed at the existing railroad yard on the west bank of the Los Angeles River where the current BNSF storage tracks are located. Because of Shared Passenger Track Alternative A's LMF location at an existing rail yard, the scale and size of the proposed LMF would not substantially alter or degrade existing views.

The presence of the train cars themselves would be limited in both frequency and duration. Therefore, although train cars would be temporarily visible—because of the intervening development, such as sound or retention walls, which often obstruct sightlines to the rail corridor, and because of the established presence of other train cars on the existing railway—train operations are not expected to contribute to significant visual quality impacts.

The changes in visual quality at the KVPs in the Downtown Los Angeles Landscape Unit are summarized in Table 6-1. The Effect on Visual Quality for all KVPs in the Downtown Landscape Unit is neutral.

Table 6-1 Downtown Los Angeles Landscape Unit: Summary of Visual Effects

KVP	Visual Quality Rating: Existing	Visual Quality Rating: Proposed	Overall Visual Change	Viewer Sensitivity to Change	Effect on Visual Quality
1	Moderate	Moderate-low	Moderate-low	Moderate-low	Neutral
2	Moderate-low	Low	Moderate-low	Moderate	Neutral
3	Low	Low	Low	Low	Neutral
4	Low	Low	Low	Low	Neutral

KVP = key viewpoint

Gateway Cities Landscape Unit

Ten KVPs are designated to represent typical views from common types of viewing areas, depicting the range of visual character and visual quality found in the Gateway Cities Landscape Unit. Photographic comparisons by KVP of existing conditions and simulated conditions are depicted in this project section (Figure 6-9 through Figure 6-28).



Figure 6-9 Key Viewpoint 5: Existing View from Downey Road and E 26th Street (Facing Northwest)



Figure 6-10 Key Viewpoint 5: Visual Simulation from Downey Road and E 26th Street (Facing Northwest)



Figure 6-11 Key Viewpoint 6: Existing View from 6185 Bandini Boulevard (Facing North)



Figure 6-12 Key Viewpoint 6: Visual Simulation from 6185 Bandini Boulevard (Facing North)



Figure 6-13 Key Viewpoint 7: Existing View from Sycamore Street and Supply Avenue (Facing Southwest)



Figure 6-14 Key Viewpoint 7: Visual Simulation from Sycamore Street and Supply Avenue (Facing Southwest)



Figure 6-15 Key Viewpoint 8: Existing View from S Fourth Street and Sycamore Street (Facing Southeast)



Figure 6-16 Key Viewpoint 8: Visual Simulation from S Fourth Street and Sycamore Street (Facing Southeast)



Figure 6-17 Key Viewpoint 9: Existing View of the Rio Hondo Trail Near Maynard Road (Facing Northeast)



Figure 6-18 Key Viewpoint 9: Visual Simulation of the Rio Hondo Trail Near Maynard Road (Facing Northeast)



Figure 6-19 Key Viewpoint 10: Existing View of the San Gabriel River Bike Path and San Gabriel River Trail South of Slauson Avenue (Facing Northeast)



Figure 6-20 Key Viewpoint 10: Visual Simulation of the San Gabriel River Bike Path and San Gabriel River Trail, South of Slauson Avenue (Facing Northeast)



Figure 6-21 Key Viewpoint 11: Existing View from Metropolitan State Hospital/Bloomfield Avenue (Facing East)



Figure 6-22 Key Viewpoint 11: Visual Simulation from Metropolitan State Hospital/ Bloomfield Avenue (Facing East)



Figure 6-23 Key Viewpoint 12: Existing View from Norwalk/Santa Fe Springs Metrolink Station Parking Lot (Facing East)



Figure 6-24 Key Viewpoint 12: Visual Simulation from Norwalk/Santa Fe Springs Metrolink Station Parking Lot (Facing East)



Figure 6-25 Key Viewpoint 13: Existing View Facing Norwalk/Santa Fe Springs Metrolink Station from John Zimmerman Park (Facing North/Northwest)



Figure 6-26 Key Viewpoint 13: Visual Simulation Facing Norwalk/Santa Fe Springs Metrolink Station from John Zimmerman Park (Facing North/Northwest)



Figure 6-27 Key Viewpoint 14: Existing View from Tulare Avenue and Fullerton Avenue (Facing Northwest)



Figure 6-28 Key Viewpoint 14: Visual Simulation from Tulare Avenue and Fullerton Avenue (Facing Northwest)

Visual Changes

Visual changes in the Gateway Cities Landscape Unit would include relocation of the Commerce, Norwalk/Santa Fe Springs, and Buena Park Metrolink Stations, new and relocated tracks, electrification of tracks (at grade and on aerial structures), a TPSS, a paralleling station in Commerce, a switching station in Santa Fe Springs, landform changes, grade separations (overcrossing and undercrossings) and roadway relocations and closures, security features

(barriers, signage, and signal lights), radio towers (up to 100 feet tall), lighting, and landscaping and revegetation.

Improvements related to the proposed TPSS and associated electrical interconnections bringing in power to the project site from utility providers would cause minimal change to the visual character of the project site. The TPSS along Washington Boulevard in Los Angeles would be in a dense industrial area. Along E Washington Boulevard from Soto Street to 1,000 feet east of Downey Road, the proposed project would replace existing power lines with steel tubular poles along the west side of Washington Boulevard in an industrial area within existing roadways and public utility facilities. Approximately 35 poles would be required to connect the TPSS to the power source on De La Torre Way and 15th Street. In addition, the boundaries of the existing substation north of Emery Street would be expanded in the event that future expansion or rearrangement is needed. Furthermore, Emery Street would become a cul-de-sac at Spence Street and De La Torre Way. Because of the heavily industrialized landscape of the area, the utility improvements would not result in a substantial change in visual quality.

Viewer Sensitivity

Primary viewer groups in the Gateway Cities Landscape Unit include residents/recreationists in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers that use local roadways and thoroughfares that traverse or are parallel or otherwise adjacent to the existing railway and proposed alignment. Generally, the impact on visual quality for lower-sensitivity groups, such as commuters and haulers, would most likely be neutral. More sensitive viewers, such as residents, might have an adverse reaction to visual changes. Overall, given the viewers' familiarity with the existing LOSSAN Corridor and existing Norwalk/Santa Fe Springs, Commerce, and Buena Park Metrolink Stations, viewer sensitivity throughout the Gateway Cities Landscape Unit would be predominantly low to moderate-low, except where recreational and residential viewers are present and viewer sensitivity would be moderate to moderate-high.

Visual Character and Visual Quality

As depicted on Figure 6-9, KVP 5, the existing rail line and surrounding landscape appear visually degraded because of the dominance of pavement, wooden utility poles, lattice steel transmission towers, lattice steel train signal structure, and adjacent industrial development. During operation, the concrete barrier and fencing would slightly reduce visual clutter by obscuring views of the tracks, but the OCS would slightly increase visual clutter by adding an additional utility feature into view, as depicted on Figure 6-10. However, the proposed OCS would not result in a notable change in the quality of views because of the existing number of visual intrusions associated with utilities already present in the view.

As depicted on Figure 6-11, KVP 6, the existing rail line is not visible in views, and pavement, tubular steel utility poles, lattice steel transmission towers, security fencing, and adjacent industrial development dominate the landscape. Views of the mountains in the background are present, but they are not a focal point because of the tall utility infrastructure that draws the viewer's attention. During operation, the viaduct would introduce a new, elevated transportation structure into the view, as depicted on Figure 6-12. However, the structure and proposed OCS would retain views of the mountains. Shared Passenger Track Alternative A would not substantially degrade the quality of views, given the industrial nature of this view and the existing number of visual intrusions associated with utilities and development present in the view.

As depicted on Figure 6-13, KVP 7, the landscape is dominated by pavement, the tracks, security fencing with graffiti, and adjacent industrial development that appear disjointed because of the separation that the tracks create. During operation, the relocated Commerce Metrolink Station would introduce a new transportation facility into the view, as depicted on Figure 6-14. Shared Passenger Track Alternative A would not substantially degrade the quality of views, given the industrial nature of this view, but would act to better unify the view by creating a more organized and programmed space.

As depicted on Figure 6-15, KVP 8, the landscape is dominated by residential development, a soundwall, and landscaping associated with the residence and soundwall for a view that appears relatively intact. The tall wooden utility pole and wires detract from the existing view. During operation, the rail line soundwall would blend well with the existing soundwall, as depicted on Figure 6-16. The proposed OCS would slightly increase visual clutter by adding an additional utility feature into view but would not substantially alter the quality of the view.

As depicted on Figure 6-17, KVP 9, the landscape is dominated by open space, several mature trees, rail berm, and a bike tunnel under the rail line for a view that appears relatively intact. Lattice steel transmission towers and wires can be seen beyond the berm and detract slightly from the existing view. During operation, the security fencing along the rail line would not substantially alter views, as depicted on Figure 6-18. The proposed OCS would slightly increase visual clutter by adding an additional utility feature into view but would not substantially alter the quality of the view.

As depicted on Figure 6-19, KVP 10, the landscape is dominated by the grassy riverbed, the roadway and rail viaduct structures, rail berm, river levees, lattice steel transmission towers and wires, lattice steel train signal structure, and a band of mature trees in the distance. During operation, the upgraded rail bridge decking and security fencing along the rail line would not be very noticeable in views, as depicted on Figure 6-20. The proposed OCS would slightly increase visual clutter by adding an additional utility feature into view but would not substantially alter the quality of the view.

As depicted on Figure 6-21, KVP 11, the existing rail line is not visible in views, and pavement, the flagpole, the security wall and gate, and industrial development dominate the landscape. During operation, the viaduct would introduce a new, elevated transportation structure into the view, as depicted on Figure 6-22. However, the structure and proposed OCS would not substantially degrade the quality of views, given the industrial nature of this view.

As depicted on Figure 6-23, KVP 12, the existing station, parking lot, and landscaping dominate views. During operation, the station improvements would introduce a new, elevated platform with new track, other associated facilities, and additional landscaping into the view, as depicted on Figure 6-24. However, the proposed improvements would be seen as a visual expansion of existing rail facilities. In addition, proposed landscaping would ensure the scale of the facility does not dominate views. Therefore, the improvements would not degrade the quality of this view.

As depicted on Figure 6-25, KVP 13, the existing ball field, park, and landscaping dominate views, although the rail line is visible beyond the park. The ball field lighting draws attention in this view. During operation, the station improvements would introduce a new, elevated platform with new track, and other associated facilities, as depicted on Figure 6-26. The proposed improvements would become a focal point in the view, although the station would not be as tall as the ball field lighting. Therefore, the proposed station would not overly dominate the view.

As depicted on Figure 6-27, KVP 14, the landscape is dominated by residential development, privacy fencing, lattice steel train signal structure, and landscaping. Wooden utility poles and wires along the roadway and rail line detract from the existing view. During operation, the proposed OCS would slightly increase visual clutter by adding an additional utility feature into view, as depicted on Figure 6-28, but would not substantially affect the quality of the view.

The changes in visual quality at the KVPs in the Gateway Cities Landscape Unit are summarized in Table 6-2.

Table 6-2 Gateway Cities Landscape Unit: Summary of Visual Effects

KVP	Visual Quality Rating: Existing	Visual Quality Rating: Proposed	Overall Visual Change	Viewer Sensitivity to Change	Effect on Visual Quality
5	Low	Low	Low	Low	Neutral
6	Low	Low	Low	Low	Neutral

KVP	Visual Quality Rating: Existing	Visual Quality Rating: Proposed	Overall Visual Change	Viewer Sensitivity to Change	Effect on Visual Quality
7	Low	Moderate-low	Moderate-low	Low	Beneficial
8	Moderate-low	Moderate-low	Low	Moderate	Neutral
9	Moderate-low	Low	Moderate-low	Moderate-low	Neutral
10	Moderate-low	Moderate-low	Low	Moderate-low	Neutral
11	Moderate-low	Low	Moderate-low	Low	Neutral
12	Moderate	Moderate-low	Moderate-low	Moderate-high	Neutral
13	Moderate	Moderate-low	Moderate-low	Moderate-high	Neutral
14	Low	Low	Low	Moderate	Neutral

KVP = key viewpoint

As presented in Table 6-2, the visual quality effects of the project at the KVPs in the Gateway Cities Landscape Unit would be neutral or beneficial because of the moderate to low visual quality change and the moderate to low viewer sensitivity to change except for KVP 12 and KVP 13, where sensitivity is moderate-high, but the effect on visual quality would be neutral. Similarly, visual quality at KVPs selected for analysis would not be reduced because the project would be introduced into an existing rail corridor and would generally be compatible with the visual setting. The overall visual quality effect would be compatible and neutral in this landscape unit.

In addition, Shared Passenger Track Alternative A would permanently incorporate a portion of the Rio Hondo channel into the project footprint. The project elements and new crossing would be visible in the channel; however, these structures are consistent with the types of transportation infrastructure that have historically been visible from the river channel. As such, the new visual elements would not change the character of the historic property's use or result in changes to the physical setting in a manner that would substantially impair the protected features, activities, or attributes of the Rio Hondo channel.

Project operational activities would alter the existing visual environment for the life of the system. Effects of Shared Passenger Track Alternative A will be partially alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or address impacts on viewers, visual character, and visual quality.

Fullerton/Anaheim Landscape Unit

Five KVPs are designated to represent typical views from common types of viewing areas, depicting the range of visual character and visual quality found in the Fullerton/Anaheim Landscape Unit. Additionally, three KVPs (KVPs 16–18) do not provide typical views from common viewing areas but rather provide aerial views of existing and simulated conditions to depict how the project would fit into the larger context of the project site and urban environment. Photographic comparisons by KVP of existing conditions and simulated conditions are depicted in this section (Figure 6-29 through Figure 6-44).



Figure 6-29 Key Viewpoint 15: Existing View from Raymer Avenue at Gilbert Street (Facing West)



Figure 6-30 Key Viewpoint 15: Visual Simulation from Raymer Avenue at Gilbert Street (Facing West)



Figure 6-31 Key Viewpoint 16: Existing View of Fullerton Metrolink/Amtrak Station (from the Southwest Facing Northeast)



Figure 6-32 Key Viewpoint 16: Visual Simulation of Fullerton Metrolink/Amtrak Station (No High-Speed Rail Station Option) (from the Southwest Facing Northeast)

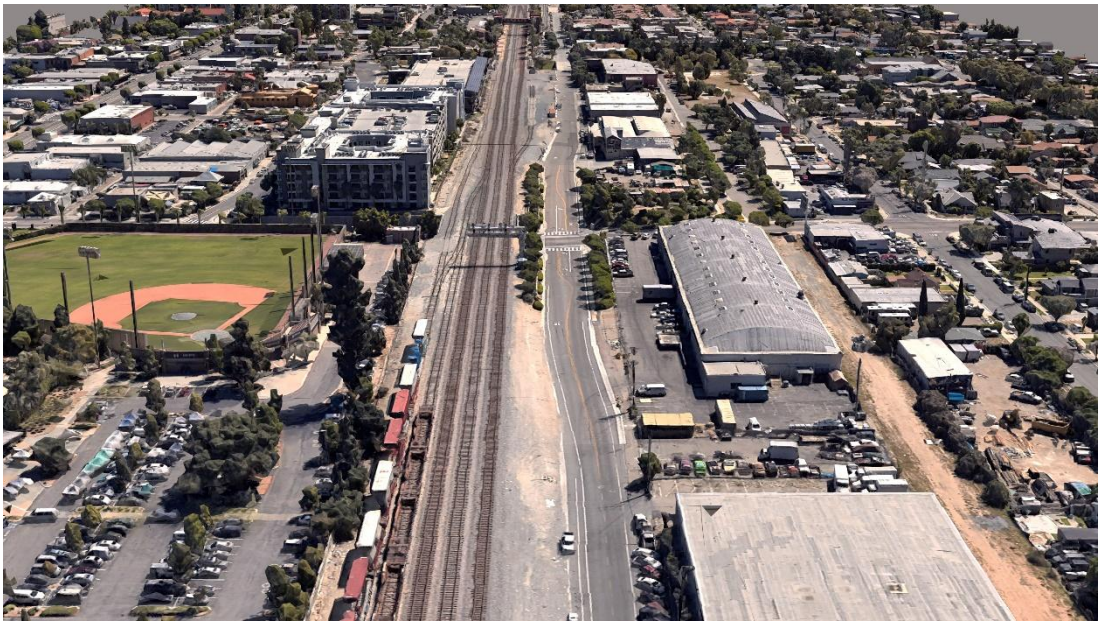


Figure 6-33 Key Viewpoint 17: Existing View of Fullerton Metrolink/Amtrak Station (from the West Facing East)

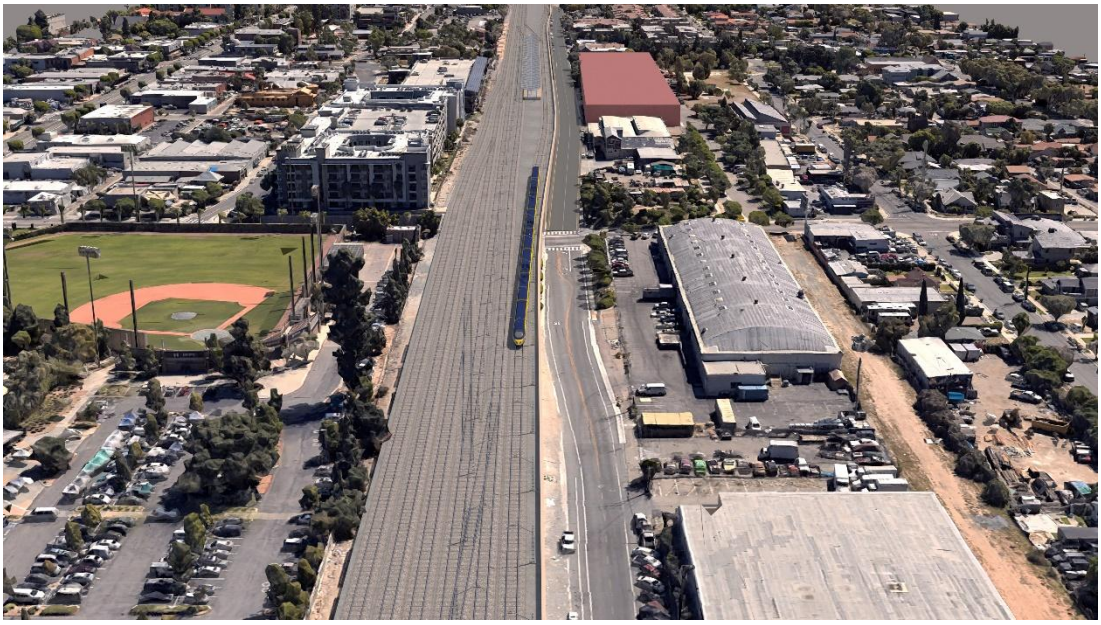


Figure 6-34 Key Viewpoint 17: Visual Simulation of Fullerton Metrolink/Amtrak Station (No High-Speed Rail Station Option) (from the West Facing East)



Figure 6-35 Key Viewpoint 18: Existing View of Fullerton Metrolink/Amtrak Station (from the East-Southeast Facing West-Northwest)



Figure 6-36 Key Viewpoint 18: Visual Simulation of Fullerton Metrolink/Amtrak Station (No High-Speed Rail Station Option) (from the East-Southeast Facing West-Northwest)



Figure 6-37 Key Viewpoint 19: Existing View of Fullerton Metrolink/Amtrak Station from E Walnut Avenue (Facing East)



Figure 6-38 Key Viewpoint 19: Visual Simulation of Fullerton Metrolink/Amtrak Station from E Walnut Avenue (No High-Speed Rail Station Option) (Facing East)



Figure 6-39 Key Viewpoint 20: Existing View from State College Boulevard and E Katella Avenue (Facing East)



Figure 6-40 Key Viewpoint 20: Visual Simulation from State College Boulevard and E Katella Avenue (Facing East)



Figure 6-41 Key Viewpoint 21: Existing View from S State College Boulevard (Facing Northeast)



Figure 6-42 Key Viewpoint 21: Visual Simulation from S State College Boulevard (Facing Northeast)



Figure 6-43 Key Viewpoint 22: Existing View from Angel Stadium Parking Lot North (Facing North)



Figure 6-44 Key Viewpoint 22: Visual Simulation from Angel Stadium Parking Lot North (Facing North)

Visual Changes

Visual changes in the Fullerton/Anaheim Landscape Unit would include station improvements at Fullerton Station and ARTIC (with new parking structures at each station), a TPSS, electrification of tracks, addition of storage tracks with a 2-acre servicing facility, a paralleling station in Fullerton, a TPSS in Anaheim, landform changes, grade separations (overcrossing and undercrossings) and roadway rerouting and closures, security features (barriers, signage, and signal lights), radio towers (up to 100 feet tall), lighting, and landscaping and revegetation.

Viewer Sensitivity

Primary viewer groups in the Fullerton/Anaheim Landscape Unit include residents in areas that neighbor the existing railway and proposed alignment, employees and patrons of similarly located businesses, and motorists, commuters, haulers, transit riders, pedestrians, and bicyclists who use local roadways and thoroughfares that traverse or are parallel or otherwise adjacent to the existing railway and proposed alignment. Overall, given the viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Fullerton/Anaheim Landscape Unit would be predominantly moderate-low to moderate, except where residential viewers are present and viewer sensitivity would be moderate-high.

Visual Character and Visual Quality

As depicted on Figure 6-29, KVP 15, the landscape is dominated by the rail line, bridge railings, and mature trees along the rail corridor. During operation, the proposed station platform, fencing, and OCS would slightly increase the dominance of the rail line in the view, as depicted on Figure 6-30, but would not substantially affect the quality of the view.

As depicted on Figure 6-31, KVP 16; Figure 6-33, KVP 17; and Figure 6-35, KVP 18, the rail line segments land uses on either side of the rail corridor. Industrial, commercial, and park uses immediately border the corridor in the station area, with residential and commercial uses being located in the blocks farther away. Mature trees and shrubs are along the rail corridor at the Highland Avenue undercrossing at Walnut Avenue and Amerige Park. During operation, the proposed Metrolink Station platform, fencing, OCS, and realignment of Walnut Avenue would require that the vegetation at the Highland Avenue undercrossing at Walnut Avenue be removed to accommodate the retaining wall needed for the rail line and station platform, as depicted on Figure 6-32, Figure 6-34, and Figure 6-36. In addition, two industrial buildings would need to be removed to accommodate the new station facilities and parking structure. As depicted on Figure 6-36, the existing pedestrian bridge over the rail line connecting the Amtrak station to the Metrolink parking lot and the existing station platform with associated vegetation and shade structures would be removed. These changes would slightly increase the dominance of the rail line in the view but would not substantially affect the quality of the view because the changes would be in keeping with the existing visual landscape.

As depicted on Figure 6-37, KVP 19, existing views are dominated by roadway and sidewalk pavement, the existing rail line, streetlights, roadside landscaping, features associated with the rail safety crossing, and a commercial development in the distance. During operation, the concrete barrier, fencing, and OCS would slightly increase visual clutter by adding an additional feature into view, as depicted on Figure 6-38. However, the proposed OCS would not result in a notable change in the quality of views because of the existing number of visual intrusions associated with utilities already present in the view.

As depicted on Figure 6-39, KVP 20, the existing viaduct structure acts to mostly obscure views of the commercial development beyond and views are dominated by the viaduct structure, associated fencing, and roadside landscaping. During operation, the proposed OCS would be visible but would not dominate views because they would be of a height that is similar to the adjacent streetlights, as depicted on Figure 6-40. The modified bridge deck and proposed fencing would be in keeping with existing views. Shared Passenger Track Alternative A would not substantially detract from the quality of views.

As depicted on Figure 6-41, KVP 21, roadway and sidewalk pavement, industrial buildings, billboards, a transmission corridor, streetlights, traffic lights, and features associated with the rail safety crossing dominate existing views. The view is visually cluttered. During operation, the

proposed viaduct structure, OCS, and roadway underpass would become a focal point in the view, as depicted on Figure 6-42. The proposed viaduct structure would obscure views of the visually cluttered landscape beyond and would not substantially detract from the quality of views.

As depicted on Figure 6-43, KVP 22, the existing rail line is not very noticeable unless a train is traveling by on the tracks, because existing vegetation partially obscures views of the rail line. As a result, mature trees and the tall office building beyond the tracks dominate existing views. During operation, the proposed OCS would be visible but would not dominate views because it would be shorter than the adjacent trees, as depicted on Figure 6-44. The safety barrier and proposed fencing would be in keeping with existing views. The trees and the tall office building would remain the focal points of this view, and Shared Passenger Track Alternative A would not substantially detract from the quality of views.

The changes in visual quality at the KVPs in the Fullerton/Anaheim Landscape Unit are summarized in Table 6-3.

Table 6-3 Fullerton/Anaheim Landscape Unit: Summary of Visual Effects

KVP	Visual Quality Rating: Existing	Visual Quality Rating: Proposed	Overall Visual Change	Viewer Sensitivity to Change	Effect on Visual Quality
15	Moderate-low	Low	Moderate-low	Moderate-low	Neutral
16	Moderate	Moderate	Low	Moderate-low	Neutral
17	Moderate	Moderate	Low	Moderate-low	Neutral
18	Moderate	Moderate-low	Moderate-low	Moderate-low	Neutral
19	Moderate	Moderate-low	Moderate-low	Moderate-low	Neutral
20	Moderate	Moderate-low	Moderate-low	Moderate-low	Neutral
21	Low	Low	Low	Moderate-low	Neutral
22	Moderate-low	Moderate-low	Low	Moderate-low	Neutral

KVP = key viewpoint

As presented in Table 6-3, the visual quality effects of the project at the KVPs in the Fullerton/ Anaheim Landscape Unit would be neutral because of the moderate to low visual quality change and the moderate-low viewer sensitivity to change. Similarly, visual quality at the KVPs selected for analysis would not be reduced, particularly because the project would be introduced into an existing rail corridor and would generally be compatible with the visual setting. The overall visual quality effect would be compatible and neutral in this landscape unit.

In addition, at the Hunt Foods and Industries Office and Library in Fullerton, trees and tree branches adjacent to but outside the historic property boundary near the railroad right-of-way would be removed and trimmed as part of project operations to ensure that foliage does not encroach on OCS elements during operations. However, the setting beyond the property boundary is not a character-defining feature of the historic property. Because no trees or landscape elements that contribute to the historic property would be altered as part of the project, the removal or trimming of trees beyond it would not affect its setting or views to or from it.

Project operations in the Fullerton/Anaheim Landscape Unit would substantially alter the existing visual environment for the life of the system. **AVQ-IAMF#1** and **AVQ-IAMF#2** will partially reduce anticipated visual quality impacts related to project operations.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those of Shared Passenger Track Alternative A, with the exception of the 15th Street LMF. The 15th Street LMF is proposed next to the existing Redondo Junction Roadhouse, on the west bank of the Los Angeles River,

where the current maintenance already occurs. The 15th Street LMF would convert the existing industrial uses and big-box warehouses to the LMF but would be seen as a visual expansion of the existing rail facilities. Because it would be next to an existing rail yard in an area that is very industrialized, the scale and size of the proposed LMF would not substantially alter or degrade existing views.

The presence of the train cars themselves would be limited in both frequency and duration. Train cars would be temporarily visible but intervening industrial development often obstruct sightlines to the rail corridor, and there is an established presence of other train cars on the existing railway. Therefore, train operations at the LMF are not expected to contribute to significant visual quality impacts.

Adherence to **AVQ-IAMF#1** and **AVQ-IAMF#2** will reduce impacts on viewers, visual character, and visual quality associated with operation of the of the project's LMF.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. This station option includes an elevated HSR platform alongside the modified Metrolink tracks. Other HSR facilities such as a larger station building and more parking areas would be included where the existing Metrolink station parking lot and adjacent warehouse facilities and shipping container storage yard are located. Primary viewer groups include nearby residents, employees and visitors to businesses, motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers on local roadways. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and, therefore, lower sensitivity because the nature of their work typically limits both the duration and relevance of views of the surrounding landscape. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and are also considered to have a lower sensitivity because they experience the environment only briefly and in passing. However, residents would have a higher awareness of visual changes in the environment and are also considered to have a higher sensitivity because of their consistent, long-term exposure to the landscape, making changes in visual quality substantially more noticeable. Exposure of most of these viewer groups would be shorter in duration, except in residential areas where the duration would be longer. Overall, given the viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Gateway Cities Landscape Unit would be predominantly low to moderate-low, except where recreational and residential viewers are present, and in that case, viewer sensitivity would be moderate to moderate-high. Viewers would see the new station and trains approaching and leaving the station. Adherence to **AVQ-IAMF#1** and **AVQ-IAMF#2** will partially reduce impacts on viewers, visual character, and visual quality associated with operation of the project's facilities and activities within the station area.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives in the station area. Operation of the Fullerton HSR Station Option would appear to be a visual expansion of the existing Fullerton Metrolink Station. In addition to the modifications occurring under Shared Passenger Track Alternative A, several HSR station facilities and elements would be added. An HSR platform would be added west of the Fullerton Metrolink/Amtrak platform, which would be supported by new retaining walls on both sides of the HSR/Metrolink tracks to account for grade differences and would be connected via ramps and paths to the Fullerton Metrolink/Amtrak platform. The proposed HSR parking would appear much like other parking facilities in the area, such as at Fullerton Community Center across from the station site.

Three KVPs (KVPs 16–18) provide aerial views of existing and simulated conditions to depict how the project would fit into the larger context of the project site and urban environment. As depicted on Figure 6-44, Figure 6-48, and Figure 6-50, the changes would be very similar to those

described for the Shared Passenger Track Alternatives. However, the Fullerton HSR Station platform would also be visible. Mature trees and shrubs line the rail corridor at the Highland Avenue undercrossing at Walnut Avenue and Amerige Park. During operation, the proposed station platforms, fencing, OCS, and realignment of Walnut Avenue would require that the vegetation at the Highland Avenue undercrossing at Walnut Avenue be removed to accommodate the retaining wall needed for the rail line and station platforms, as depicted on Figure 6-46, Figure 6-48, and Figure 6-50. In addition, two industrial buildings would need to be removed to accommodate the new HSR station facilities and parking structure. As depicted on Figure 6-50, the existing pedestrian bridge over the rail line connecting the Amtrak station to the Metrolink parking lot and the existing station platform with associated vegetation and shade structures would be removed. These changes would slightly increase the dominance of the rail line in the view but would not substantially affect the quality of the view because the changes would be in keeping with the existing visual landscape.

Figure 6-52 provides a KVP designated to represent a typical view from E Walnut Avenue of Fullerton HSR Station Option and Metrolink Station under existing and simulated conditions. Photographic comparisons by KVP of existing conditions and simulated conditions are depicted in this section (Figure 6-45 through Figure 6-52).



Figure 6-45 Key Viewpoint 16: Existing View of Fullerton Metrolink/Amtrak Station (from the Southwest Facing Northeast)



Figure 6-46 Key Viewpoint 16: Visual Simulation of Fullerton High-Speed Rail Station Option and Metrolink/Amtrak Station (from the Southwest Facing Northeast)



Figure 6-47 Key Viewpoint 17: Existing View of Fullerton Metrolink/Amtrak Station (from the West Facing East)

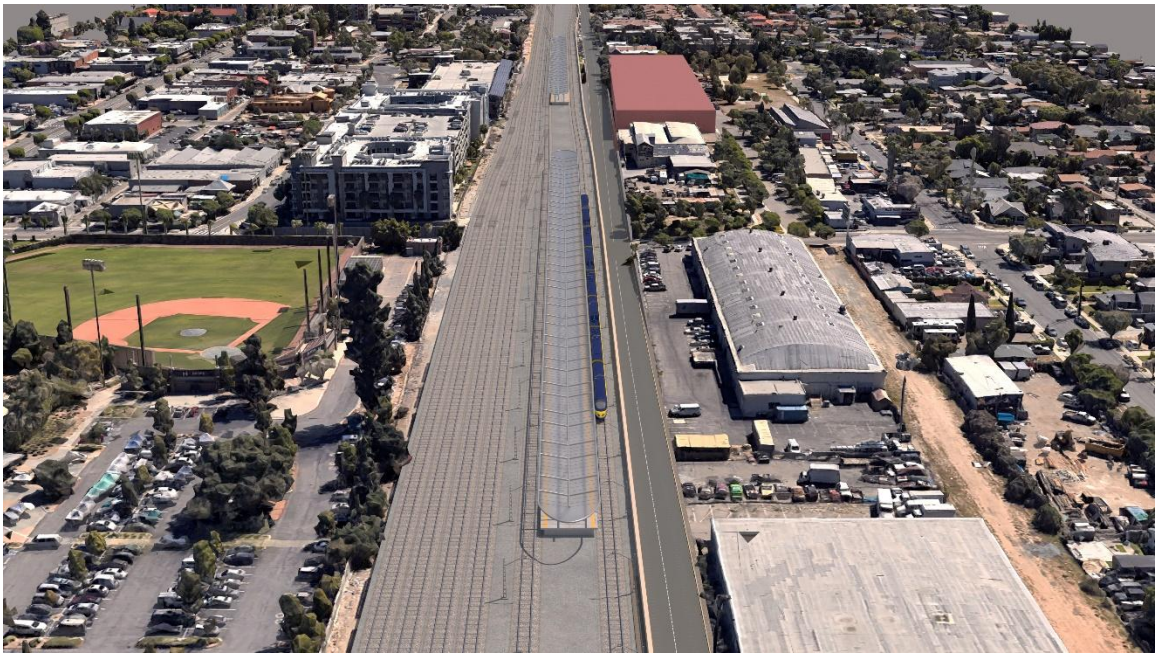


Figure 6-48 Key Viewpoint 17: Visual Simulation of Fullerton High-Speed Rail Station Option and Metrolink/Amtrak Station (from the West Facing East)



Figure 6-49 Key Viewpoint 18: Existing View of Fullerton Metrolink/Amtrak Station (from the East-Southeast Facing West-Northwest)



Figure 6-50 Key Viewpoint 18: Visual Simulation of Fullerton High-Speed Rail Station Option and Metrolink/Amtrak Station (from the East-Southeast Facing West-Northwest)



Figure 6-51 Key Viewpoint 19: Existing View of Fullerton Metrolink/Amtrak Station from E Walnut Avenue (Facing East)



Figure 6-52 Key Viewpoint 19: Visual Simulation of the Fullerton High-Speed Rail Station Option from E Walnut Avenue (Facing East)

Primary viewer groups of the project section depicted on Figure 6-45 through Figure 6-52 include nearby residents, employees and visitors to businesses, motorists, commuters, haulers, transit riders, pedestrians, bicyclists, and other travelers on local roadways. Although KVPs depicted by Figure 6-46, Figure 6-48, and Figure 6-50 do not provide typical views from common viewing areas, they do provide aerial views of existing and simulated conditions to depict how the project would influence land users and viewers along the project section. Generally, industrial and commercial workers have a lower awareness of visual changes in the environment and therefore lower sensitivity. Travelers, given the nature of their activities, also have a lower awareness of visual changes in the environment and are also considered to have a lower sensitivity. However, residents would have a higher awareness of visual changes in the environment and are also considered to have a higher sensitivity because they experience the environment only briefly and in passing. However, residents would have a higher awareness of visual changes in the environment and are also considered to have a higher sensitivity because of their consistent, long-term exposure to the landscape, making changes in visual quality substantially more noticeable. Exposure of most of these viewer groups is shorter in duration, except in residential areas where the duration is longer. Overall, given the viewers' familiarity with the existing LOSSAN Corridor, viewer sensitivity throughout the Fullerton/Anaheim Landscape Unit would be predominantly moderate-low to moderate, except where residential viewers are present, and in that case, viewer sensitivity would be moderate-high. Viewers would see the new station and trains approaching and leaving the station.

Adherence to **AVQ-IAMF#1** and **AVQ-IAMF#2** will partially reduce impacts on viewers, visual character, and visual quality associated with the construction of the project section's facilities and activities within the station area.

6.3.2.2 Nighttime Lighting During Operation

Shared Passenger Track Alternative A

Introduction of light and glare from security and signal lighting could affect the visual quality of the historic bridges and other operational activities and built features. During operation, signal lights would flash intermittently as trains proceed through the corridor, providing brief additional daytime and nighttime illumination. In addition, train lights would provide an additional transient source of illumination. The 26th Street LMF would require nighttime security lighting. It is anticipated that maintenance facility lighting would be appropriately shielded to avoid light spilling onto adjacent land uses.

Nighttime lighting disturbances affecting viewers, visual character, and visual quality would result from signal and train lighting along the corridor in all landscape units from operational activities and built features, including at the historic bridges in the Downtown Los Angeles Landscape Unit. Effects of Shared Passenger Track Alternative A will be alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or alleviate impacts on viewers, visual character, and visual quality. Security lighting will be designed to be nonintrusive, and signal lighting would occur intermittently as trains pass through the corridor. Train lighting would also be intermittent and of brief duration. Therefore, there would not be an effect on views or uses as a result of increased light and glare during operation.

Shared Passenger Track Alternative B

Similar to Shared Passenger Track Alternative A, Shared Passenger Track Alternative B would result in light and glare from security and signal lighting that would affect all four historic bridges in the Downtown Los Angeles Landscape Unit. In addition, the 15th Street LMF would require nighttime security lighting, similar to the 26th Street LMF. As such, impacts for Shared Passenger Track Alternative B would be similar to those described for Shared Passenger Track Alternative A, because the 15th Street LMF would require similar nighttime security lighting as the 26th Street LMF under Shared Passenger Track Alternative A. It is anticipated that maintenance facility lighting would be appropriately shielded to avoid light spill onto adjacent land uses.

Effects of Shared Passenger Track Alternative B on viewers, visual character, and visual quality will be alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2**. Security lighting will

be designed to be nonintrusive, and signal lighting would occur intermittently as trains pass in and out of the LMF. Train lighting would also be intermittent and of brief duration. Therefore, there would not be an effect on views or uses as a result of increased light and glare during operation.

High-Speed Rail Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives in the station area. Introduction of light and glare from security and signal lighting could affect the visual quality at the Norwalk/Santa Fe Springs HSR Station Option and areas surrounding the station. Existing security and signal lighting are present in the area because of operations of the existing Metrolink platform; however, the Norwalk/Santa Fe Springs HSR Station Option would increase the frequency of light and glare from these sources. During operation, signal lights would flash intermittently as trains arrive and leave the station, providing brief additional daytime and nighttime illumination. In addition, train lights would provide an additional transient source of illumination. The station and parking facilities would require nighttime security lighting. It is anticipated that station lighting would be appropriately shielded to avoid light spilling onto adjacent land uses. Effects of the station option on viewers, visual character, and visual quality will be alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2**. Security lighting would be designed to be nonintrusive, and signal lighting would occur intermittently as trains pass in and out of the station. Train lighting would also be intermittent and of brief duration. Therefore, there would not be an effect on views or uses as a result of increased light and glare during operation.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives in the station area. Introduction of light and glare from security and signal lighting could affect the visual quality at Fullerton HSR Station Option and areas surrounding the station. Existing security and signal lighting are present in the area because of operations of the existing Metrolink platform; however, the Fullerton HSR Station Option would increase the frequency of light and glare from these sources. During operation, signal lights would flash intermittently as trains arrive and leave the station, providing brief additional daytime and nighttime illumination. Furthermore, train lights would provide an additional transient source of illumination. Although the existing Metrolink/Amtrak station includes nighttime security lighting at the station and along roadways, the Fullerton HSR Station Option would require additional nighttime security lighting at its facilities. It is anticipated that station lighting would be appropriately shielded to avoid light spilling onto adjacent land uses. Effects of the station option on viewers, visual character, and visual quality will be alleviated through incorporation of **AVQ-IAMF#1** and **AVQ-IAMF#2** to substantially avoid or alleviate impacts on viewers, visual character, and visual quality. Security lighting would be designed to be nonintrusive, and signal lighting would occur intermittently as trains pass in and out of the station. Train lighting would also be intermittent and of brief duration. Therefore, there would not be an effect on views or uses as a result of increased light and glare during operation.

6.3.3 Cumulative Effects

This section presents potential cumulative effects based on current knowledge of the project section. Subsequent to this technical report, the Authority will further refine the cumulative effects described herein and present the information in Section 3.19, Cumulative Impacts, of the Draft EIR/EIS.

Cumulative effects are those resulting from past, present, and reasonably foreseeable future actions, combined with the potential visual effects of this project section. The RSA for the cumulative effects analysis is limited to locations that have clear sightlines to the built elements proposed as part of the project section. In this case, the RSA for the cumulative effects analysis is the same as that previously established in Chapter 4. As such, the RSA boundaries extend approximately 0.25 mile from the project perimeter. A list of related projects was reviewed as part of this cumulative effects analysis, and those projects that fall within the RSA boundary were

considered conjointly with the Shared Passenger Track Alternatives. Cumulative visual effects are discussed in greater detail in Section 3.19 of the Draft EIR/EIS.

Temporary construction effects associated with the project section would not result in cumulative visual effects because they would be temporary.

Operational effects would generally be low to moderate, as discussed above, and would alter viewsheds in the RSA and project vicinity. Planned development and other development projects would also alter the existing visual character of the RSA and project vicinity in the long term as seen from the Downtown Los Angeles, Gateway Cities, and Fullerton/Anaheim Landscape Units. Overall, the project section would make only an incremental contribution to cumulative effects related to visual changes in the RSA because it would not substantially alter the existing visual landscape or degrade the visual quality of the RSA and project vicinity. Therefore, the project section's incremental effect on visual resources would be less than cumulatively considerable. Implementation of the applicable design guidelines and regulations, such as the IAMFs described in Chapter 7, Impact Avoidance and Minimization Features, will further reduce the project section's incremental effect on visual resources.

The combined visual effect of the project section and other development projects planned, recently in construction, or currently in construction would result in a cumulative change to the visual elements throughout the RSA and project vicinity. The Shared Passenger Track Alternatives, however, would not contribute to substantial changes to the visual character of the region or its overall visual quality. Implementation of the general plans discussed in Chapter 3, Laws, Regulations, Orders, and of the Southern California Association of Governments' 2012–2035 Regional Transportation Plan would contribute to growth and development within and surrounding the RSA and project vicinity.

7 IMPACT AVOIDANCE AND MINIMIZATION FEATURES

The Shared Passenger Track Alternatives incorporate standardized HSR features to avoid and minimize impacts. These features are referred to as IAMFs. The Authority will incorporate these measures during project design and construction to avoid or reduce impacts. Because the project section is in a shared corridor with existing passenger and freight service, the property owner will also be responsible for ensuring the IAMFs are implemented during construction and operation. The Authority or contractor will coordinate with local jurisdictions (as opposed to individual property owners) prior to the start of construction to ensure the required IAMFs are implemented such that the project will adapt to the local design context as a part of the aesthetic review process.

The following IAMFs will be implemented to avoid or minimize adverse effects on aesthetic and visual resources.

7.1 AVQ-IAMF#1: Aesthetic Options

Prior to construction, the Authority-designated contractor will document, through issue of a technical memorandum, how the Authority's aesthetic guidelines have been employed to minimize visual effects. The Authority seeks to balance providing a consistent, project-wide aesthetic with the local context for the numerous HSR nonstation structures across the state. Examples of aesthetic options will be provided to local jurisdictions that can be applied to nonstandard structures in the HSR system. Refer to *Aesthetic Options for Non-Station Structures*, 2017.

7.2 AVQ-IAMF#2: Aesthetic Review Process

Prior to construction, the Authority-designated contractor will document that the Authority's aesthetic review process has been followed to guide the development of nonstation area structures. Documentation will be through issuance of a technical memorandum to the Authority. The Authority or contractor will identify key nonstation structures recommended for aesthetic treatment, consult with local jurisdictions on how best to involve the community in the process, solicit input from local jurisdictions on their aesthetic preferences, and evaluate aesthetic preferences for potential cost, schedule, and operational impacts. The Authority will also evaluate compatibility with project-wide aesthetic goals, include recommended aesthetic approaches in the construction procurement documents, and work with the Authority and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Refer to *Aesthetic Options for Non-Station Structures*, 2017.

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APPENDIX A: SUMMARY OF VISUAL QUALITY AND VIEWER SENSITIVITY RATINGS BY KEY VIEWPOINT

Landscape Unit	KVP	View	Natural Harmony	Cultural Order	Project Coherence	Overall Visual Quality Rating	Overall Visual Change	Viewer Sensitivity to Change	Visual Effects
Downtown Los Angeles	1	Existing	Moderate	Moderate	Moderate	Moderate	Moderate-low	Moderate-low	Neutral
		Proposed	Moderate	Moderate-low	Moderate-low	Moderate-low			
Downtown Los Angeles	2	Existing	Low	Moderate-low	Moderate-low	Moderate-low	Moderate-low	Moderate	Neutral
		Proposed	Low	Low	Low	Low			
Downtown Los Angeles	3	Existing	Low	Low	Moderate-low	Low	Low	Low	Neutral
		Proposed	Low	Low	Moderate-low	Low			
Downtown Los Angeles	4	Existing	Low	Low	Moderate-low	Low	Low	Low	Neutral
		Proposed	Low	Low	Moderate-low	Low			
Gateway Cities	5	Existing	Low	Low	Low	Low	Low	Low	Neutral
		Proposed	Low	Low	Low	Low			
Gateway Cities	6	Existing	Low	Low	Low	Low	Low	Low	Neutral
		Proposed	Low	Low	Low	Low			
Gateway Cities	7	Existing	Low	Low	Low	Low	Moderate-low	Low	Beneficial
		Proposed	Low	Moderate-low	Moderate-low	Moderate-low			
Gateway Cities	8	Existing	Moderate-low	Moderate-low	Moderate-low	Moderate-low	Low	Moderate	Neutral
		Proposed	Moderate-low	Moderate-low	Moderate-low	Moderate-low			
Gateway Cities	9	Existing	Moderate-low	Moderate	Moderate-low	Moderate-low	Moderate-low	Moderate-low	Neutral
		Proposed	Low	Moderate	Low	Low			
Gateway Cities	10	Existing	Moderate	Moderate-low	Moderate-low	Moderate-low	Low	Moderate-low	Neutral
		Proposed	Moderate	Moderate-low	Moderate-low	Moderate-low			
Gateway Cities	11	Existing	Low	Low	Moderate	Moderate-low	Moderate-low	Low	Neutral
		Proposed	Low	Low	Low	Low			

Landscape Unit	KVP	View	Natural Harmony	Cultural Order	Project Coherence	Overall Visual Quality Rating	Overall Visual Change	Viewer Sensitivity to Change	Visual Effects
Gateway Cities	12	Existing	Moderate	Moderate	Moderate	Moderate	Moderate-low	Moderate-high	Neutral
		Proposed	Moderate-low	Moderate-low	Moderate-low	Moderate-low			
Gateway Cities	13	Existing	Moderate	Moderate	Moderate	Moderate	Moderate-low	Moderate-high	Neutral
		Proposed	Moderate	Moderate-low	Moderate-low	Moderate-low			
Gateway Cities	14	Existing	Low	Low	Low	Low	Low	Moderate	Neutral
		Proposed	Low	Low	Low	Low			
Fullerton/ Anaheim	15	Existing	Moderate-low	Moderate-low	Moderate	Moderate-low	Moderate-low	Moderate-low	Neutral
		Proposed	Low	Low	Moderate-low	Low			
Fullerton/ Anaheim	16	Existing	Moderate	Moderate	Moderate	Moderate	Low	Moderate-low	Neutral
		Proposed	Moderate-low	Moderate	Moderate	Moderate			
Fullerton/ Anaheim	17	Existing	Moderate	Moderate	Moderate	Moderate	Low	Moderate-low	Neutral
		Proposed	Moderate-low	Moderate	Moderate	Moderate			
Fullerton/ Anaheim	18	Existing	Moderate	Moderate	Moderate	Moderate	Moderate-low	Moderate-low	Neutral
		Proposed	Low	Moderate-low	Moderate-low	Moderate-low			
Fullerton/ Anaheim	19	Existing	Moderate	Moderate	Moderate-low	Moderate	Moderate-low	Moderate-low	Neutral
		Proposed	Moderate-low	Moderate-low	Moderate-low	Moderate-low			
Fullerton/ Anaheim	20	Existing	Moderate	Moderate	Moderate	Moderate	Moderate-low	Moderate-low	Neutral
		Proposed	Moderate	Moderate-low	Moderate-low	Moderate-low			
Fullerton/ Anaheim	21	Existing	Low	Low	Moderate-low	Low	Low	Moderate-low	Neutral
		Proposed	Low	Low	Moderate-low	Low			
Fullerton/ Anaheim	22	Existing	Moderate-low	Moderate	Moderate-low	Moderate-low	Low	Moderate-low	Neutral
		Proposed	Moderate-low	Moderate-low	Moderate-low	Moderate-low			

KVP = key viewpoint