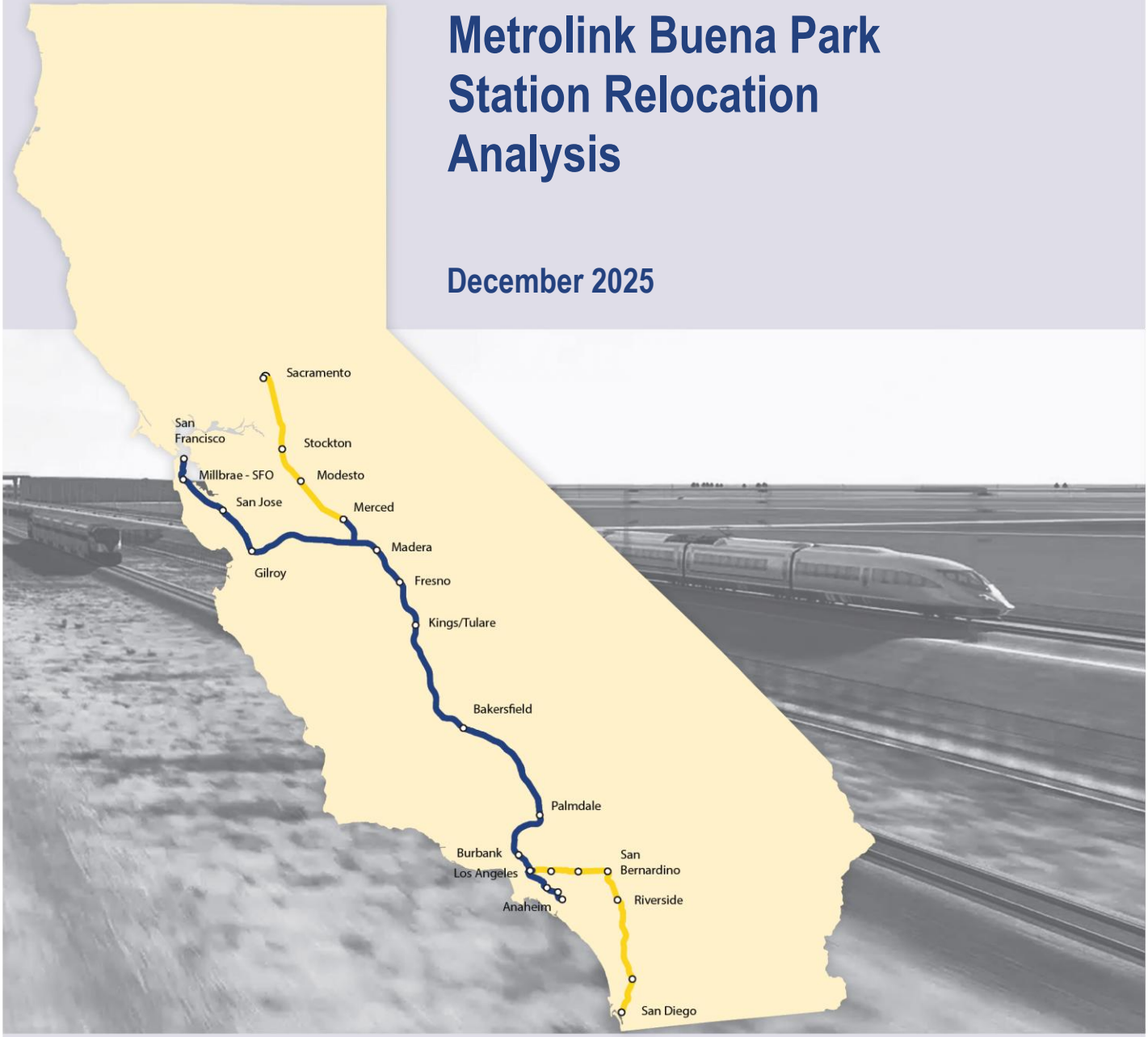
APPENDIX 2-C: BUENA PARK METROLINK STATION RELOCATION AND COMMERCE METROLINK STATION RELOCATION ANALYSIS

California High-Speed Rail Authority

Los Angeles to Anaheim Project Section

Metrolink Buena Park Station Relocation Analysis

December 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.

California High-Speed Rail Project

Los Angeles to Anaheim Project Section

METROLINK BUENA PARK STATION RELOCATION ANALYSIS

December 2025

TABLE OF CONTENTS

1 INTRODUCTION 1-1
1.1 High-Speed Rail System Background 1-1
1.2 Los Angeles to Anaheim Project Section Overview 1-2
1.2.1 Purpose and Need 1-2
1.2.2 Description 1-2
1.3 Metrolink Buena Park Station Overview 1-5
1.3.1 Existing Conditions 1-5
1.3.2 Need for Reconstruction/Relocation 1-9
1.4 Agency and Community Outreach 1-9
2 METHODOLOGY 2-1
3 DESCRIPTION OF ALTERNATIVES 3-1
3.1 Alternatives Identification 3-1
3.2 Alternative not Advanced to Step 2 Evaluation 3-3
3.3 Alternatives Advanced to Step 2 Evaluation 3-3
4 ALTERNATIVES EVALUATION 4-1
4.1 Beach Boulevard, Northwest 4-1
4.1.1 Transportation and Land Use 4-1
4.1.2 Community Input 4-2
4.1.3 Ridership and Cost 4-2
4.2 Beach Boulevard, Northeast 4-3
4.2.1 Transportation and Land Use 4-3
4.2.2 Community Input 4-4
4.2.3 Ridership and Cost 4-4
5 RECOMMENDATION 5-1
6 REFERENCES 6-1

Tables

Table 2-1 Evaluation Criteria for Metrolink Station Alternatives 2-3
Table 2-2 Evaluation Methods and Information Sources for Metrolink Station Alternatives 2-4
Table 5-1 Comparison of Alternatives 5-1
Table 5-2 Summary of Performance Metrics by Alternative 5-2

Figures

Figure 1-1 Los Angeles to Anaheim Project Section Proposed Alignment 1-4
Figure 1-2 Existing Metrolink Buena Park Station 1-6
Figure 1-3 Metrolink Lines and Stations 1-6
Figure 1-4 Activity Centers in Study Area 1-8
Figure 1-5 Collaborative Approach 1-10
Figure 2-1 Screening Process to Identify and Evaluate Metrolink Station Alternatives 2-1
Figure 3-1 Station Location Options 3-2

Figure 4-1 Alternative 1: Beach Boulevard, Northwest 4-1
Figure 4-2 Alternative 2: Beach Boulevard, Northeast 4-3
Figure 5-1 Evaluation Criterion Performance Metrics 5-2

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
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FRA	Federal Railroad Administration
HSR	High-Speed Rail
LAUS	Los Angeles Union Station
LOSSAN Corridor	Los Angeles – San Diego – San Luis Obispo Rail Corridor
OCTA	Orange County Transportation Authority
project section	Los Angeles to Anaheim Project Section
TOD	transit-oriented development
UPRR	Union Pacific Railroad

1 INTRODUCTION

The California High-Speed Rail Authority (Authority) is assessing alternatives for the California High-Speed Rail (HSR) project section between Los Angeles and Anaheim. This report provides an evaluation of alternatives either to relocate or reconstruct the existing Metrolink Buena Park Station. The purposes of this report are as follows:

- Provide planning, environmental, and preliminary engineering information on a range of alternatives considered to reconstruct or relocate the Metrolink Buena Park Station in the Los Angeles to Anaheim Project Section (project section).
- Describe how the alternatives compare against a set of specified evaluation criteria.
- Recommend an alternative to advance for additional analysis in the environmental clearance process and remove the other alternatives from further evaluation.

1.1 High-Speed Rail System Background

The Authority is responsible for managing the planning, design, construction, and operation of the first HSR service in the nation. Traveling at speeds of up to 220 miles per hour, the completed system will total about 800 miles with up to 24 stations. In the *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System* (Authority and FRA 2005), the Authority stated that the goals of the HSR system are to:

- Connect, for the first time, all of the state's major economic and population centers.
- Contribute to economic development by creating new jobs and training opportunities to encourage workforce development.
- Protect the environment by:
  - Removing an estimated 317,000 automobiles off the road on a daily basis
  - Decreasing greenhouse gas emissions by an estimated 57 million metric tons of carbon-dioxide equivalents
  - Preserving agricultural and protected lands as well as wildlife corridors by limiting, wherever possible, the HSR alignment presenting a barrier to wildlife movement
  - Reducing urban sprawl through transit-oriented development (TOD) around station areas
  - Minimizing potential impacts on communities and the environment by utilizing to the maximum extent practicable existing transportation or utility corridors for the HSR alignment
- Serve the transportation needs of the state's increasing population, expected to reach about 50 million by the year 2050, by:
  - Providing a comfortable, safe, frequent, and reliable transportation alternative to California's critically overused highways and commercial airports
  - Increasing the capacity for intercity travel
  - Improving the efficiency of the intercity transportation system
  - Maximizing intermodal transportation opportunities by locating stations in areas accessible to local mass transit or other modes of transportation

The Authority is developing the system in two phases: Phase 1 would connect the downtowns of San Francisco, Los Angeles, and Anaheim via the Pacheco Pass and the Central Valley. Phase 2 would extend the Central Valley alignment north to Sacramento and the Los Angeles alignment east to the Inland Empire and then south to San Diego.

Because the system would run through areas of the state with extremely different geographical, environmental, and economic issues, the Authority and the Federal Railroad Administration (FRA) divided the system into 10 project sections. The Los Angeles to Anaheim Project Section would

run from Los Angeles Union Station (LAUS) to the Anaheim Regional Transportation Intermodal Center (ARTIC), as depicted on Figure 1-1.

1.2 Los Angeles to Anaheim Project Section Overview

1.2.1 Purpose and Need

The project section has the following purpose statement (Authority and FRA 2016):

> *The purpose of this project is to implement the Los Angeles to Anaheim section of the California High-Speed Train system to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the Los Angeles-Orange counties metropolitan region, and connects to the rest of the system.*

The project section has the following objectives:

- Provide intercity travel capacity to supplement critically overused interstate highways and commercial airports.
- Meet future intercity travel demand that will be unmet by current transportation systems and increase capacity for intercity mobility.
- Maximize intermodal transportation opportunities by locating stations to connect with local transit, airports, and highways.
- Improve the intercity travel experience for Californians by providing comfortable, safe, frequent, and reliable high-speed travel.
- Provide a sustainable reduction in travel time between major urban centers.
- Increase the efficiency of the intercity transportation system
- Minimize conflicts between freight and passenger rail services.
- Maximize the use of existing transportation corridors and rights-of-way, to the extent feasible.
- Develop a practical and economically viable transportation system that can be implemented in phases and generate revenues in excess of operations and maintenance costs
- Provide intercity travel in a manner sensitive to and protective of the region's natural and agricultural resources and reduce emissions and vehicle miles traveled for intercity trips.

1.2.2 Description

The project section is approximately 30 miles long and serves the cities of Los Angeles, Vernon, Bell, Commerce, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, and Anaheim. The alignment proposed for the section would use the existing LOSSAN Corridor, sharing infrastructure with the current passenger-rail and freight-rail operations provided by the National Railroad Passenger Corporation (Amtrak), Metrolink (Southern California Regional Rail Authority), BNSF Railway (BNSF), and Union Pacific Railroad (UPRR).

The existing Metrolink rail stations that would also serve the project section are LAUS in downtown Los Angeles, Commerce, Norwalk/Santa Fe Springs, Buena Park, Fullerton, and ARTIC in Anaheim, as depicted on Figure 1-1. The HSR station facilities would integrate with existing facilities, where available, including tracks and platforms, auto and bike parking, passenger pick-up/drop-off, bus bays, and passenger amenities.

The *Los Angeles to Anaheim Project Section: Supplemental Alternatives Analysis Report* (Authority and FRA 2016) considered two alignment alternatives: Alternative 1 (formerly called the *Dedicated High-Speed Train Alternative*) and Alternative 2 (formerly called the *Consolidated Shared-Track Alternative*). After evaluating both alternatives, the Authority and FRA eliminated Alternative 1 from further consideration based on its high capital costs and its potential to

adversely affect sensitive environmental resources. The Authority subjected Alternative 2, referred to as the 2018 HSR Project Alternative, to additional analyses and design refinements, which reduced the acreage needed to secure right-of-way for HSR service within the LOSSAN Corridor.

Following interested party feedback on the BNSF Colton Component received during scoping in 2020, three new alternatives were introduced in the Supplemental Alternatives Analysis Report (Authority 2023) as alternatives to the 2018 HSR Project Alternative: the Shared Passenger Track Alternative, 3A – Freeway Tunnel Alternative, and 3B – UPRR Alignment Alternative. The Supplemental Alternatives Analysis Report identified the Shared Passenger Track Alternative to be evaluated further in the EIR/EIS. The Shared Passenger Track Alternative would follow the same alignment as the 2018 HSR Project Alternative, but would not include the BNSF Colton or Lenwood Components.

After the 2023 Supplemental Alternatives Analysis, additional design refinements and outreach occurred, and in May 2024, the Preliminary Impacts Assessment Report was presented to the Authority Board. 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. The two build alternatives would be similar in all aspects, except for the light maintenance facility size and location. Shared Passenger Track Alternative A proposes a light maintenance facility at 26th Street, which would have storage capacity for 24 trainsets, and Shared Passenger Track Alternative B proposes a light maintenance facility at 15th Street, which would have storage capacity for 20 trainsets. In May 2024, the Board identified Shared Passenger Track Alternative A without an optional intermediate station as the Preferred Alternative.

Figure 1-1 depicts the proposed alignment for the Shared Passenger Track Alternatives in the project section.

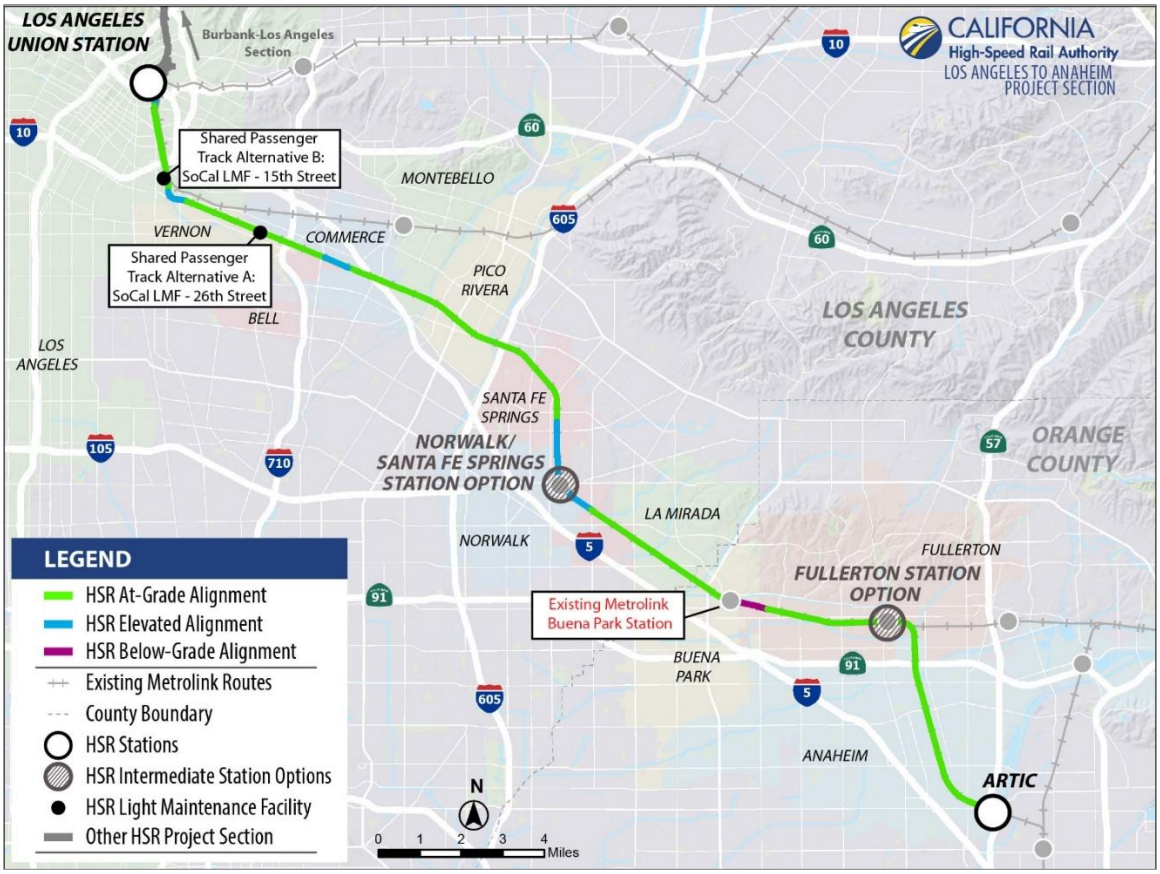


Figure 1-1 Los Angeles to Anaheim Project Section Proposed Alignment

The HSR system between Los Angeles and Anaheim would operate primarily within the existing LOSSAN Corridor right-of-way on a combination of at-grade, elevated, and below-grade tracks. The majority of the corridor, from Vernon to Fullerton—a distance of approximately 22 miles—would consist of four mainline tracks, two with overhead electrification to provide power to the HSR services. All passenger rail services, including HSR, Amtrak, and Metrolink, would operate on the two electrified tracks. 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. In this project section, the HSR tracks would not be fully grade separated or solely dedicated to HSR trains, and the design would limit the maximum speed of HSR to 90 miles per hour.

To accommodate HSR, the project section would improve the Los Angeles to Anaheim corridor by providing:

- New and upgraded track (new tracks and realignment of existing tracks)
- Upgrades to the traction power system
- Next-generation signaling technology, with intrusion sensors and an early earthquake-warning system
- Maintenance facilities
- Grade separations
- Drainage improvements

- Communications towers
- Security fencing

The new and upgraded tracks would allow other passenger rail services—Amtrak Pacific Surfliner, Amtrak long distance, and Metrolink commuter rail lines—to share tracks with the HSR system. Separate tracks would be dedicated to BNSF and UPRR freight trains, but freight trains could also use the shared tracks. 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 crossing would be partially grade separated, with passenger rail on an elevated structure and freight rail remaining at grade. These would be added to prevent conflicts with other modes of transport—including auto, bicycles, and pedestrians—and ensure optimal operations and safety benefits for the HSR and passenger rail trains.

In Fullerton, the project alignment would have a new braced trench section north of the Fullerton Airport (depicted in purple on Figure 1-1) and east of the existing Metrolink Buena Park Station. The braced trench would be designed to avoid conflicts with the Fullerton Airport runway protection zone. Two mainline tracks that provide service to/from Fullerton and Anaheim (south of Fullerton) would be located in the braced trench, and would cross under four mainline tracks that provide service to/from Fullerton and Riverside (east of Fullerton).

1.3 Metrolink Buena Park Station Overview

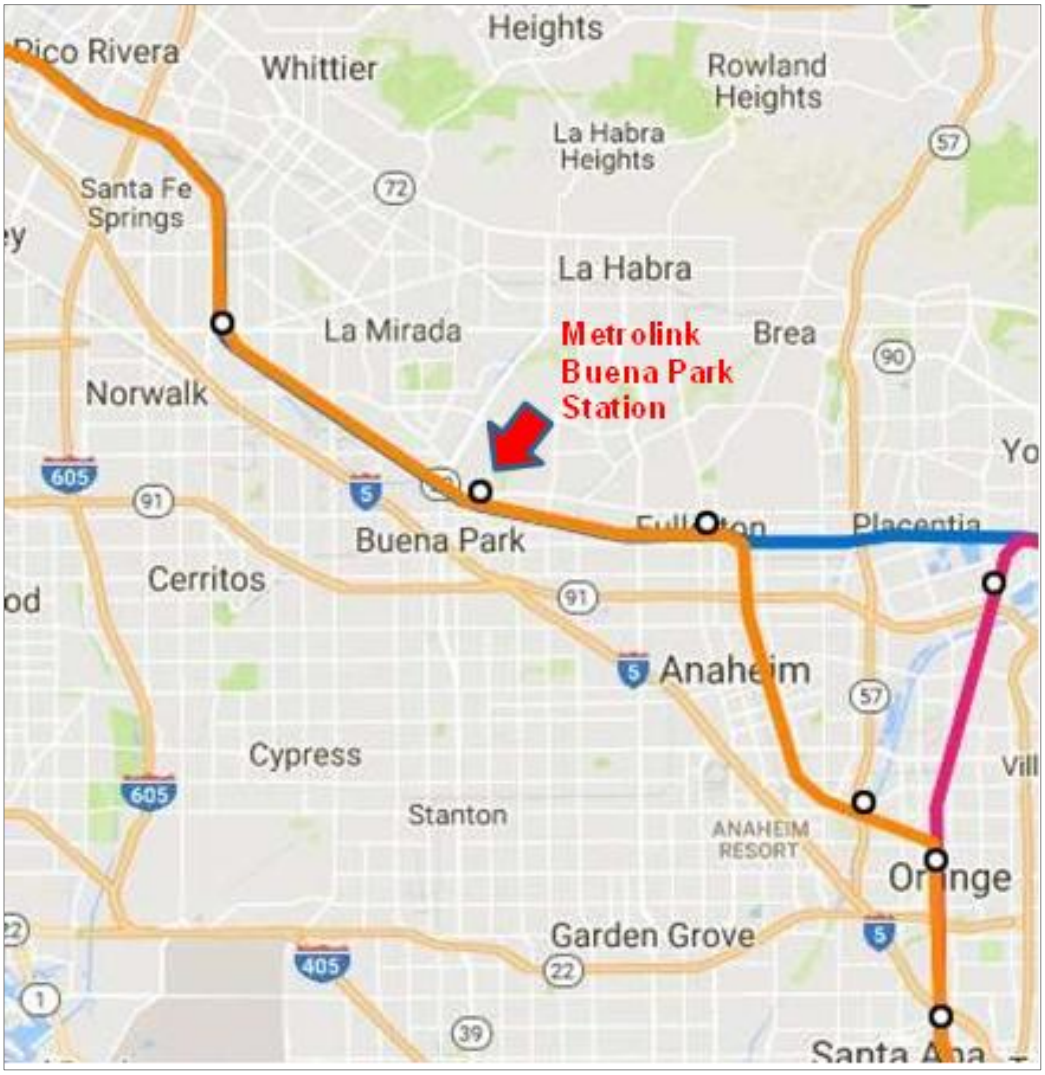
1.3.1 Existing Conditions

The existing Metrolink Buena Park Station, depicted on Figure 1-2, is at 8400 Lake Knoll Drive in Buena Park, directly north of the LOSSAN Corridor and about 0.6 mile northwest of Fullerton Airport. The Metrolink Buena Park Station is about 6 miles southeast of the Metrolink Norwalk/Santa Fe Springs Station in Norwalk and about 4 miles west of the Metrolink Fullerton Station in Fullerton (as depicted on Figure 1-3).

Buena Park Station has 313 parking spaces and two side platforms, each 670 feet in length, for passenger boarding and alighting (below the specified standard length of 680 feet for Metrolink platforms). Lake Knoll Drive provides vehicle access to and from the station; the street has two lanes in each direction and connects with Dale Street, a major north-south arterial about 0.1 miles east of the station. Both Lake Knoll Drive and Dale Street have sidewalks, but do not have bicycle lanes.

The Metrolink Orange County Line is one of the busiest lines in the Metrolink system, providing service between LAUS and Oceanside with about 2,950 riders each weekday (SCRRA 2023a). The Metrolink 91/Perris Valley Line, providing service between LAUS and Perris, has about 1,597 riders each weekday (SCRRA 2023a). On weekdays, most Metrolink Orange County Line trains (10 northbound trains and 9 southbound trains) and most Metrolink 91/Perris Valley Line trains (5 westbound trains and 7 eastbound trains) stop at the Buena Park Station. Northbound train service to Los Angeles County is about every 30 minutes on weekday mornings from 4:35 a.m. to 7:39 a.m.; southbound train service to south Orange County is about every hour on weekday afternoons from 2:11 p.m. to 6:31 p.m. (SCRRA 2023b). A limited number of trains provide weekday reverse commute service (i.e., southbound in the morning, northbound in the afternoon). On Saturdays and Sundays, four Orange County Line trains per direction and two 91/Perris Valley Line trains per direction stop at the Metrolink Buena Park Station. Additional passenger rail services that operate in the corridor, but do not stop at the Metrolink Buena Park Station, are Amtrak Pacific Surfliner service between San Luis Obispo and San Diego and Amtrak Southwest Chief service between LAUS and Chicago.

Figure 1-2 Existing Metrolink Buena Park Station



Stations represented by white dots with black outline.

Figure 1-3 Metrolink Lines and Stations

The Metrolink Buena Park Station is within a residential area of the city, with residential properties just north of the station and also just south of the rail corridor. As depicted on Figure 1-4, activity centers within approximately 1 mile of the station include:

- **McComber Shopping Center** near Beach Boulevard and Malvern Avenue, about 0.6 miles northwest of the station
- **Los Coyotes Shopping Center** near Beach Boulevard and La Mirada Boulevard, about 0.8 mile northwest of the station
- **Buena Park Civic Center** near Beach Boulevard and Pinchot Court, about 1.0 mile from the station

Two bus routes currently serve the Buena Park Station:

- **Orange County Transportation Authority (OCTA) Route 29:** This route connects the station with Anaheim, Stanton, Garden Grove, Westminster, and Huntington Beach, including the Buena Park Civic Center, Knott's Berry Farm, the Goldenwest Transportation Center, and the Bella Terra Shopping Center. The route makes about one trip every 10 to 25 minutes in each direction during most times of the day on weekdays from about 4:00 a.m. to 1:00 a.m. The route also operates on weekends with similar service frequencies, from about 4:00 a.m. to 12:30 a.m. on Saturdays and from about 5:00 a.m. to 11:30 p.m. on Sundays and holidays. The route does not serve the Buena Park Station from 6:00 a.m. to 6:00 p.m.
- **OCTA Route 123:** This route connects the station with Huntington Beach, Cypress, La Palma, Buena Park, Fullerton, Placentia, and Anaheim, including the Goldenwest Transportation Center, Fullerton Transportation Center, Cypress College, California State University, Fullerton/Hope International University Area, and Anaheim Metrolink Station. It is a community route with no weekend service. This route makes one trip every 65 minutes from about 4:30 a.m. to 11:00 p.m. on weekdays.

Figure 1-4 Activity Centers in Study Area

The volume-to-capacity ratio of a roadway is the basis for determining roadway segment level of service (LOS), a measure for the quality of traffic flow. Existing LOS data are available based on the current methodology and findings of the draft *Los Angeles to Anaheim Project Section Transportation Technical Report* (Authority 2025). Dale Street in the station vicinity has a year 2015 LOS of A (stable flow) during both the a.m. and p.m. peak periods. These LOS values are relevant to roadway accessibility of the existing Buena Park Station.

Roadway Classification (source: Federal Highway Administration)

Principal Arterials

High traffic volume corridors that serve major activity centers of metropolitan areas and provide a high degree of mobility.

Minor Arterials

Provide service for trips of moderate length, serve geographic areas that are smaller than principal arterials and offer connectivity to the higher arterial system.

Collectors

Gather traffic from local roads and funnel them to the arterial network.

Local Roads

Are not intended for use in long-distance travel, except at the origin or destination end of the trip, because of their provision of direct access to abutting land.

Level of Service (source: Transportation Research Board)

Level of service (LOS) is a measure describing operational conditions within a traffic stream based on speed, freedom to maneuver, traffic interruptions, comfort, and convenience.

For urban streets, LOS ranges from A to F based on traffic flow:

- LOS A: free-flow speeds with unimpeded vehicle movement
- LOS B: reasonably unimpeded operations at or near free-flow speeds
- LOS C: stable traffic operations with speeds lower than free flow
- LOS D: approaching unstable traffic flow
- LOS E: unstable traffic flow with substantial travel delays
- LOS F: extremely low speeds with high volumes, high delays, and extensive queuing

For signalized intersections, LOS ranges from A to F based on average delay per vehicle:

- LOS A: Delay of less than or equal to 10 seconds per vehicle
- LOS B: Delay of 10 to 20 seconds per vehicle
- LOS C: Delay of 20 to 35 seconds per vehicle
- LOS D: Delay of 35 to 55 seconds per vehicle
- LOS E: Delay of 55 to 80 seconds per vehicle
- LOS F: Delay of more than 80 seconds per vehicle

Walk Score is a private company founded in 2007 that developed the Walk Score metric, which measures the walkability of an address. The station has a Walk Score of 34 (Walk Score 2025a). This Walk Score value is relevant to pedestrian accessibility and TOD potential of the existing Buena Park Station.

Walk Score (source: www.walkscore.com)

Walk Score measures the walkability of an address on a scale from 0 (lowest) to 100 (highest) based on walking routes to nearby amenities in several categories (including grocery stores, restaurants, parks, schools, shopping, and entertainment) and the distance to those amenities. Amenities within a 5-minute walk score maximum points; amenities that are more than a 30-minute walk score no points.

1.3.2 Need for Reconstruction/Relocation

The Shared Passenger Track Alternative would affect the existing Metrolink Buena Park Station. In order to add a new mainline track within the existing rail corridor, the proposed alignment for the passenger rail tracks would run through the location of the existing station platforms. As such, the Metrolink Buena Park Station would need to either be reconstructed or relocated to a different location.

1.4 Agency and Community Outreach

This report describes how evaluation measures applied through a collaborative process helped the Authority determine recommendations for an alternative advanced for environmental analysis. The Authority intends this report to provide sufficient information and documentation on how evaluation criteria and performance metrics have been applied to potential alternatives to optimize project objectives, minimize potential environmental impacts, and be responsive to input received from the communities along the corridor.

The Authority evaluates project alternatives using evaluation criteria, including community comments and stakeholder agency support, which correspond to the project's purpose and need and objectives. Figure 1-5 depicts the collaborative approach to the alternative evaluation. This

approach seeks to avoid or minimize potential adverse impacts by balancing the project objectives, environmental resources, and community comments for alternatives.

The collaborative approach balances project objectives, natural resources, and community concerns.

Figure 1-5 Collaborative Approach

The Authority is committed to a broad and inclusive public outreach program. The Authority is working to develop a statewide HSR program while developing shared infrastructure in the region that supports the future service needs of the Los Angeles to Anaheim project corridor while improving corridor safety and reliability. Input is necessary to gather specific and detailed information on how the proposed alternatives could perform within each community, and how alternatives could avoid or minimize potential impacts.

The Authority conducted ongoing technical coordination briefings with city staff at key project milestones and prior to hosting public meetings. Additionally, the Authority hosted public outreach opportunities to share information and receive feedback related to the project and specific to its footprint in Buena Park. In-person community meetings were held in Buena Park in 2015, 2017, and 2018. Because of the health and safety precautions in response to the COVID-19 stay-at-home mandate, the Authority conducted the 2020 scoping meetings virtually; all meetings included language interpretation services and call-in options.

2 METHODOLOGY

The purpose of this analysis is to conduct a preliminary evaluation of the alternatives for reconstructing and relocating Buena Park Station and select a recommended alternative for additional evaluation in the project section Draft EIR/EIS. The alternatives screening process enabled the Authority to identify a reasonable[1] range of station reconstruction and relocation alternatives that were determined to be:

- Technically and economically feasible
- Capable of meeting the project's purpose and need as well as the goals and objectives of federal and state agencies with jurisdiction over the HSR system
- Able to avoid or significantly reduce adverse impacts on environmental and community resources

The Authority's evaluation of the Buena Park Station reconstruction or relocation alternatives follows the three-step screening process depicted on Figure 2-1.

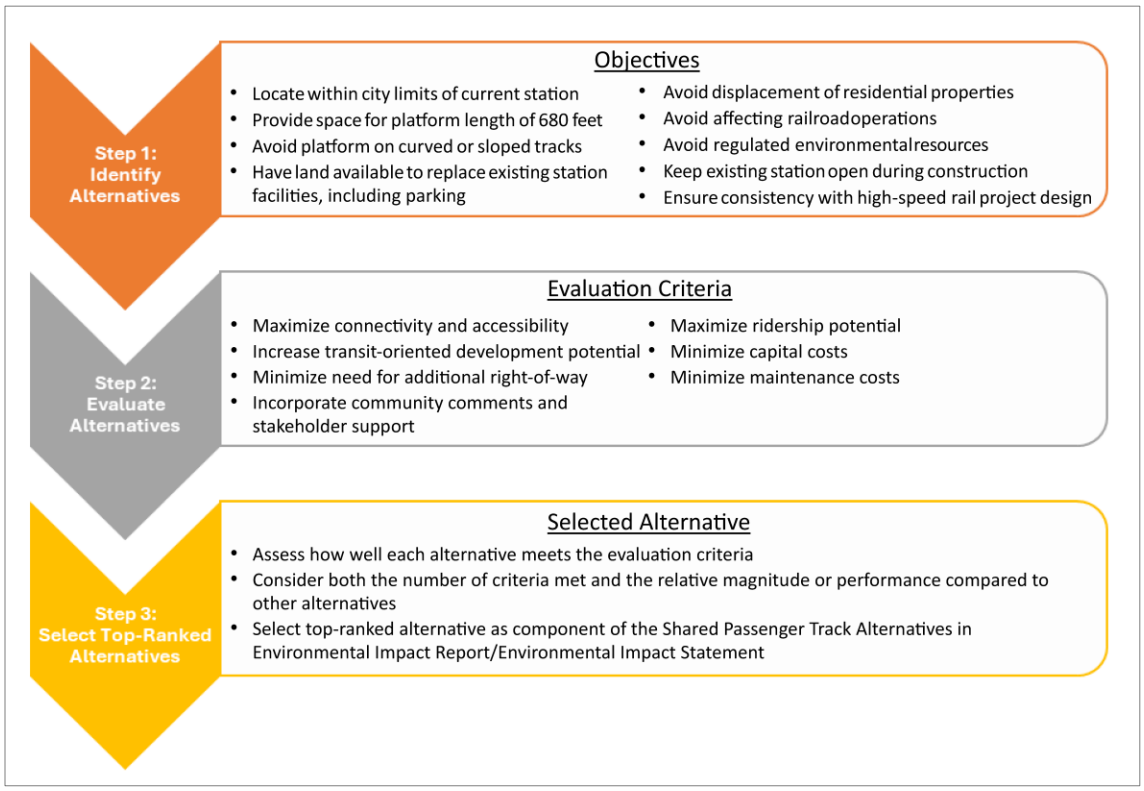


Figure 2-1 Screening Process to Identify and Evaluate Metrolink Station Alternatives

These objectives and criteria have their basis in the Authority's methodology for its alternatives analysis and programmatic environmental documents as well as the criteria Metrolink uses to

[1] Under the National Environmental Policy Act, "reasonable is generally understood to mean those technically and economically feasible project alternatives that would satisfy the primary objectives of the project defined in the Purpose and Need (P&N) statement" (Caltrans 2012).

evaluate alternative locations for its stations.[2] The three steps in the screening process are as follows.

Step 1: Identify Alternatives: The Authority identified station reconstruction or relocation alternatives for the Metrolink Buena Park Station through the application of the nine objectives depicted on Figure 2-1, which correspond to the goals of the overall HSR system (described in Section 1.1, High-Speed Rail System Background) as well as the purpose, need, and objectives that pertain specifically to the project section (described in Section 1.2, Los Angeles to Anaheim Project Section Overview). The objectives stipulate that the alternatives must:

1. Be within the city limits of the current station's location (i.e., Buena Park)
2. Have sufficient space for a minimum platform length of 680 feet, as specified in Metrolink station design criteria
3. Avoid placing the station platform on curved or sloped tracks. The HSR and Metrolink design criteria suggest that placing station components on curved or sloped track should be avoided and the HSR design criteria specify that station tracks must be level with respect to the track's vertical slope.
4. Have sufficient land available at the station site to replace the existing station facilities, including the number of parking spaces at the current station (the existing Buena Park Station has 313 parking spaces)
5. Avoid displacement of residential properties
6. Avoid negatively affecting the operations of existing railroads, including the mainline tracks, yards, and spurs
7. Avoid negatively affecting regulated environmental resources, which include parks, recreational areas, water resources, Section 4(f) resources, cultural sites, historical sites/ properties, and communities
8. Keep the existing station open during construction of the new or reconstructed station
9. Ensure consistency with other planned design elements of the project section alternative, including new tracks, grade separations, and aerial structures

The Authority identified alternatives in this step after an initial review of the Metrolink Buena Park Station's existing conditions and the infrastructure planned for the Los Angeles to Anaheim LOSSAN Corridor. After a more thorough review of the identified alternatives and their ability to meet the Step 1 objectives, the Authority advanced to Step 2 those alternatives that adhered to each of the objectives.

Step 2: Evaluate Alternatives: This step evaluates the alternatives identified in Step 1 using a set of evaluation criteria that correspond to the goals of the overall HSR system and the purpose, need, and objectives of the project section. The Authority defined Step 2 evaluation criteria that relate specifically to the alternatives for reconstructing or relocating existing Metrolink stations and organized the criteria into the following categories:

A. Transportation and Land Use
B. Community Input
C. Ridership and Cost
D. Environmental Impacts

[2] The evaluation criteria in the program-level EIR/EIS are relevant, as this was the first phase of the Authority's tiered environmental review process that led to more detailed project-level environmental reviews and decision making that is currently being conducted (Authority 2005, 2011; SCRRA 2017).

Table 2-1 presents these criteria.

- The first column, Metrolink Criteria, presents the criteria Metrolink uses when evaluating Metrolink station locations.
- The second column, HSR Alternatives Analysis Criteria, presents the criteria the Authority uses when evaluating alternative HSR station locations in a project-level alternatives analysis.
- The third column, HSR Program EIR/EIS Criteria, presents the criteria the Authority uses when evaluating alternative HSR station locations in a program-level EIR/EIS.
- The fourth column, HSR Metrolink Station Reconstruction or Relocation Criteria, presents the criteria the Authority will use to evaluate alternatives to reconstruct or relocate Metrolink stations. These criteria were selected based on an intent to make sure each primary evaluation area from the criteria previously specified by the Authority and by Metrolink for alternative station locations was covered (i.e., criteria were defined that encompass previously specified relevant criteria).

Table 2-1 Evaluation Criteria for Metrolink Station Alternatives

Metrolink Criteria	HSR Alternatives Analysis Criteria	HSR Program EIR/EIS Criteria	HSR Metrolink Station Relocation Analysis Criteria
A. Transportation and Land Use			
Maximize regional connectivity	Maximize connectivity and accessibility	Maximize connectivity and accessibility	Maximize connectivity and accessibility
Maximize transit accessibility			
Maximize ADA and first/ last mile			
Parking considerations	Maximize TOD potential	Maximize compatibility with existing and planned development	Increase TOD potential
Land use considerations	Maximize compatibility with HSR supportive land use zoning and policies		Minimize need for additional ROW
B. Community Input			
Community & stakeholder agency comments	Community & stakeholder agency comments	Community & stakeholder agency comments	Community comments & stakeholder agency support
C. Ridership and Cost			
Ridership	Maximize ridership/ revenue potential	Maximize ridership/ revenue potential	Maximize ridership potential
Minimize costs	Minimize operating and capital costs	Minimize operating and capital costs	Minimize construction costs
Minimize impacts on rail and bus operations	Maximize system operability		Minimize maintenance costs

Metrolink Criteria	HSR Alternatives Analysis Criteria	HSR Program EIR/EIS Criteria	HSR Metrolink Station Relocation Analysis Criteria
D. Environmental Impacts			
Minimize physical impacts (ROW, property, environmental, utility)	Minimize engineering challenges and ROW constraints	Minimize impacts on social and economic resources	Environmental impacts are covered in the Step 1 objectives (avoid displacement of residential properties, avoid affecting railroad operations, avoid regulated environmental resources) and in the minimize need for additional ROW evaluation criteria
	Minimize disruption to neighborhoods and communities		
	Minimize impacts on environmental resources and natural environment	Minimize impacts on natural resources and to cultural resources	
		Maximize avoidance of areas with geological and soils constraints and with potential hazardous materials	

Sources: Authority 2011, 2025; SCRRA 2014
ADA is the Americans with Disabilities Act, a federal civil rights law passed in 1990 that prohibits discrimination based on disability. First/last mile is the gap on either end of a public transportation trip between the traveler's initial origin and the final destination (source: www.transitwiki.org). TOD includes a mix of commercial, residential, office, and entertainment land uses that are centered around or located near a transit station (source: Federal Transit Administration, www.transit.dot.gov/TOD).
ADA = Americans with Disabilities Act; EIR/EIS = Environmental Impact Report/Environmental Impact Statement; HSR = high-speed rail; ROW = right-of-way; TOD = transit-oriented development

Table 2-2 describes the method and sources used to perform a comparative analysis of these evaluation criteria for each Metrolink Buena Park Station reconstruction and relocation alternative. The evaluation uses quantitative information where possible to estimate effects and qualitative information when quantification is not applicable or available. The evaluation allows a comparative analysis to be made of each individual evaluation criterion prior to conducting a balanced comparison across all criteria.

Table 2-2 Evaluation Methods and Information Sources for Metrolink Station Alternatives

Evaluation Criteria	Method	Information Sources
A. Transportation and Land Use		
Maximize connectivity and accessibility	Connectivity with the existing and planned roadway network, and accessibility to existing and planned local transit services, bicycle lanes, and pedestrian facilities	Google Earth data and transit website information (www.metrolinktrains.com, www.octa.net) on existing and planned transportation infrastructure and local transit services, SCAG model data on traffic level of service data, Walk Score data (www.walkscore.com)
Increase TOD potential	TOD districts, overlay zones, mixed-use designations, identified areas for economic development/redevelopment, or areas conducive for development within 1/2 mile of the station location	Regional and local planning documents, zoning maps, Google Earth, property data, regional and local general plan maps, input from local jurisdictions
Minimize need for additional right-of-way	Number and size of properties that would be acquired	Aerial photographs, zoning maps, Google Earth, property data, regional and local general plan maps

Evaluation Criteria	Method	Information Sources
B. Community Input		
Community comments & stakeholder agency support	Provided information and received feedback via numerous platforms including email blasts, mailers, information tables/booths, public outreach meetings, and telephone hotline; feedback from community representatives and stakeholder agencies on potential impacts such as increased noise or increased traffic	Input received during engagement with community representatives and stakeholder agencies
C. Ridership and Cost		
Maximize ridership potential	Identify station catchment areas for population and employment (within 3 miles)	SCAG RTP 2012 travel demand model data on population and employment[1]
Minimize construction costs	Estimated impacts on construction costs, based on factors including location and type of track profile (i.e., below grade, elevated, or at grade)	Google Earth and existing terrain, existing railroad infrastructure
Minimize maintenance costs	Estimated impacts on maintenance costs, based on factors including type of track profile and impacts on existing railroads	Google Earth and existing terrain, existing railroad infrastructure, service plans

Source: Authority 2011, 2025
Note that Category D, Environmental Impacts, is covered in Step 1, Objectives, and in minimize need for additional right-of-way.
[1] This is the SCAG RTP that was available at the time that the screening analysis was conducted.
RTP = Regional Transportation Plan; SCAG = Southern California Association of Governments; TOD = transit-oriented development

Step 3: Select Top-Ranked Alternative: Step 2 results in the identification of the top-ranked alternative. The top ranking results from assessing both the number of evaluation criteria that each alternative met and the relative magnitude of performance within individual criteria across the set of alternatives. The alternative with the highest ranking becomes the top-ranked alternative that will be evaluated in greater detail as part of the project section EIR/EIS.

3 DESCRIPTION OF ALTERNATIVES

3.1 Alternatives Identification

The Authority identified station alternatives for the relocated Metrolink Buena Park Station by applying the objectives discussed in Chapter 2, Methodology, and depicted on Figure 2-1. On Figure 3-1, the yellow-shaded areas highlight constraints in the area adjacent to the rail corridor including residential areas, rail spurs, water resources, and a runway protection zone near the Fullerton Airport. The red-shaded areas highlight track design constraints including locations with curved or sloped tracks. The objectives depicted on Figure 2-1 preclude relocating the station in any of these constrained areas, which specifically state that the alternative must:

- Avoid placing the station platform on curved or sloped tracks.
- Avoid displacement of residential properties.
- Avoid affecting the operations of existing railroads including the mainline tracks, yards, and spurs.
- Avoid affecting regulated environmental resources, which include water resources.

Based on this information, the Authority identified three potential Metrolink Buena Park Station relocation sites for further evaluation. Figure 3-1 depicts the potential sites.

- **Beach Boulevard, northwest:** This alternative is west of Beach Boulevard in Buena Park, adjacent to the rail corridor. The platform would be at grade because the rail tracks would be at grade at this location. The station and parking facilities would be at grade to the north of the tracks. The Authority considered a station south of the tracks, but selected the north side because the south side would have residential and water resources constraints.
- **Beach Boulevard, northeast:** This alternative is east of Beach Boulevard in Buena Park, adjacent to the rail corridor. The platform would be at grade because the rail tracks would be at grade at this location. The station and parking facilities would be at grade to the north of the tracks. The Authority considered a station south of the tracks, but selected the north side because the passenger rail tracks would be north of the freight rail tracks within the rail corridor at this location.
- **Reconstruct Existing Station:** This alternative would keep the station at its current location and replace the existing side platforms with a new center platform, to be located between the two passenger rail tracks. To avoid placing the new platform on curved track and to accommodate the required reverse curve and tangent transition lengths, the new platform would be relocated about 600 feet east of the existing platforms and would require riders to walk a longer distance between the platform and the station facilities. The platform would be at grade because the rail tracks would be at grade at this location.

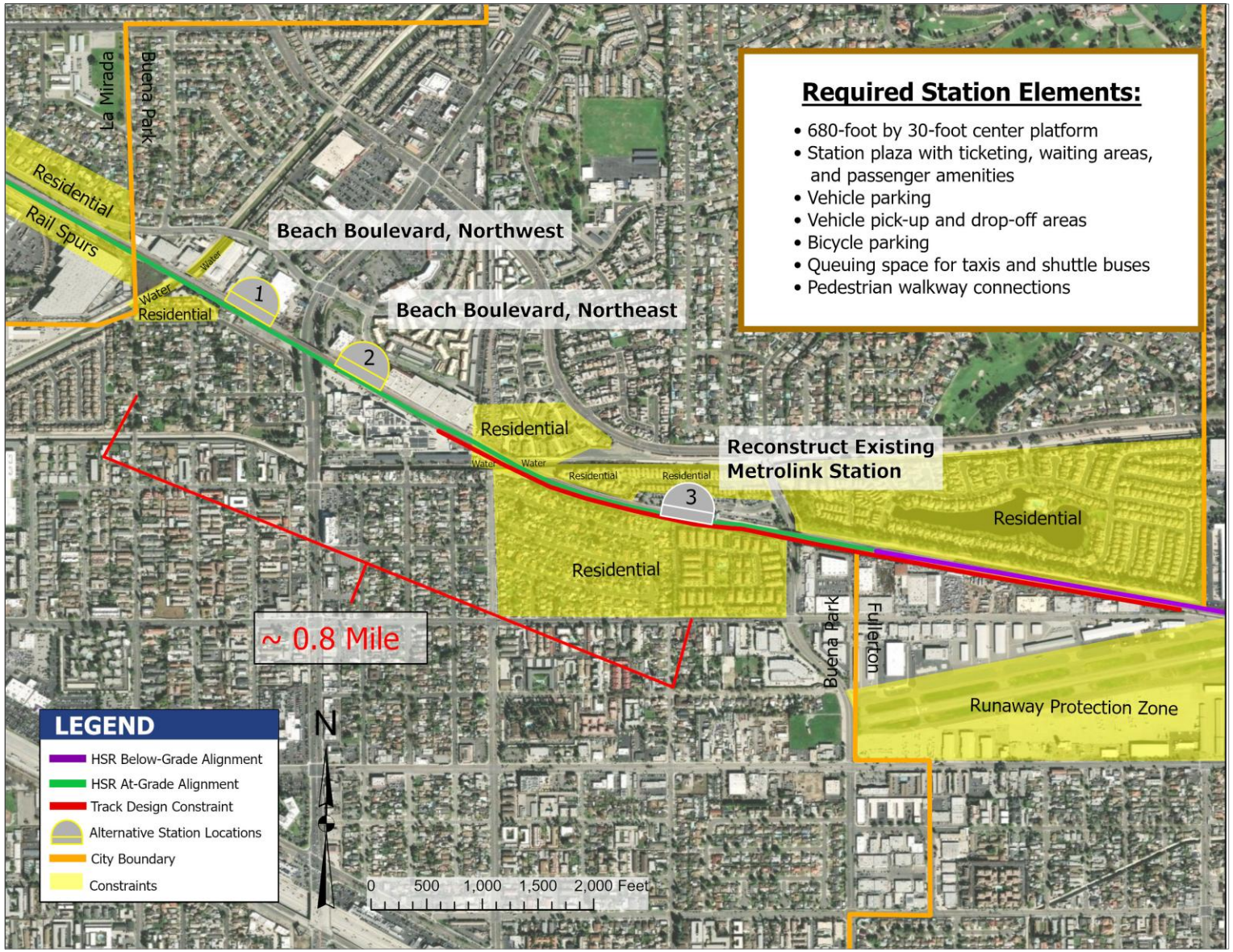


Figure 3-1 Station Location Options

3.2 Alternative not Advanced to Step 2 Evaluation

Based on further review of the identified alternatives, Alternative 3, Reconstruct Existing Station, does not adhere to the following objectives:

- Avoid displacement of residential properties (to avoid affecting existing railroad operations during construction, displacement of residential properties would be required).
- Avoid affecting railroad operations (to avoid displacement of residential properties, affecting existing railroad operations during construction would be required).
- Avoid platform on curved or sloped tracks (a temporary platform to be used during construction would be located on curved tracks).

For Alternative 3, a portion of the new platform would be located on the existing rail bridge over Dale Street. This bridge would need to be widened by a minimum of an additional 30 feet to accommodate the platform. In addition, the vertical grade of Dale Street near the roadway undercrossing would be increased to provide sufficient vertical clearance between the roadway and the widened rail bridge. The street would need to be re-profiled more extensively, which may create greater impacts on the adjacent roadway intersections. A portion of the station parking lot would be used for construction staging and laydown, which would temporarily decrease the amount of parking availability during construction.

Construction of the new platform would affect existing railroad operations during construction, because of the proximity of the new platform location with existing active mainline tracks. It is not possible to build shoofly tracks at this location without construction of a new temporary rail bridge over Dale Street, which would require a major reconstruction of the existing Dale Street underpass and acquisition of residential right-of-way adjacent to Dale Street.

The construction duration to re-profile Dale Street, widen the existing rail bridge, and build the new platform would be about 15 months. Closing the existing station during construction for this timeframe would be a major disruption to existing Metrolink riders and would not adhere to the Step 1 objectives.

In order to keep the existing station open during construction, a temporary platform would need to be built at a location accessible to the existing station facilities and in advance of other construction work at the station. It would be necessary to locate this temporary platform to the west of the existing platforms, on curved tracks. This portion of the rail corridor is within highly constrained right-of-way, with residential properties adjacent to both sides of the corridor. Construction of the temporary platform would likely require acquisition of residential right-of-way to the inside of the curved tracks (i.e., north of the rail corridor), unless a temporary platform of sub-standard length was built with restrictions on the opening of doors on certain Metrolink cars. In addition, the existing pedestrian overpass bridge would be affected during construction, which would require extensive construction of temporary pedestrian infrastructure.

As such, Alternative 3 was not advanced for further consideration in Step 2, because this alternative would not adhere to the Step 1 objectives.

3.3 Alternatives Advanced to Step 2 Evaluation

The other two alternatives identified adhere to the objectives depicted on Figure 2-1 and were advanced into Step 2. These are Alternative 1: Beach Boulevard, northwest and Alternative 2: Beach Boulevard, northeast.

These station alternatives would include the following elements:

- 680-foot by 30-foot center platform for passenger boarding and alighting
- Station plaza with ticketing, waiting areas, and passenger amenities
- Vehicle parking
- Vehicle pick-up and drop-off areas
- Bicycle parking

- Waiting areas and queuing space for taxis and shuttle buses
- Pedestrian walkway connections

For each of the alternatives, the Authority assumed a single center platform configuration between the two passenger rail tracks. The operational reconfiguration of the entire corridor would require that the Buena Park Metrolink Station be converted to a center platform configuration. This is preferable to a configuration with two side platforms, which would take up more width within the rail corridor and would locate one of the side platforms between a passenger rail track on one side and a freight rail track on the other. The two passenger rail tracks would be north of the two freight rail tracks within the rail corridor for each of the alternatives. South of the Buena Park Metrolink Station, the two passenger rail tracks would be south of the two freight rail tracks.

Existing land uses and zoning for both station alternatives are similar. The existing Metrolink Buena Park Station is zoned as planned development. This includes potential for multifamily residential, commercial, or industrial redevelopment. However, the *City of Buena Park 2035 General Plan* (City of Buena Park 2022) land use section identifies zoning for the parcels of interest as Light Industrial. Land uses eligible in this category vary but, as related to transportation, eligible uses include transit or transportation equipment storage (no truck or railroad freight yard).

Both station alternative sites are surrounded by commercial office, mixed-use, high-density residential, and low-density residential zones and land uses. Both station alternatives have TOD potential (City of Buena Park 2022).

Alternative 1: Beach Boulevard, northwest may have enhanced TOD opportunity because the *City of Buena Park 2035 General Plan* also identifies the land use north of this alternative as part of its North Beach Commercial Focus Area initiative. This area is “envisioned as an attractive dining, retail, and service node close to professional businesses and places of work” (City of Buena Park 2022).

Based on this information, the Metrolink Buena Park Station alternatives are consistent with City of Buena Park land use and zoning plans.

Based on preliminary hazardous materials findings, no active hazardous materials and wastes were identified for any of the station site alternatives. Research was conducted via various databases including Environmental Data Resources, GeoTracker, and EnviroStor that identified a series of selected hazardous waste properties and Environmental Data Resources identified sites within the corridor (EDR 2015). There were no identified hazardous waste sites that overlapped with any of the station options. Information found was for surrounding or adjacent hazardous waste sites for which there was no information for contaminants of concern, groundwater, or status of case.

4 ALTERNATIVES EVALUATION

4.1 Beach Boulevard, Northwest

Figure 4-1 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location, and the red line delineates the approximate extent of the required right-of-way.

Figure 4-1 Alternative 1: Beach Boulevard, Northwest

4.1.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Auto access for this alternative would be from Stage Road, which connects with Beach Boulevard, a major arterial and designated state route that runs north-south adjacent to the station. Beach Boulevard in the station vicinity has a year 2015 LOS of D (approaching unstable flow) during the a.m. peak and E (unstable flow) during the p.m. peak. The site is about 1.3 miles from the nearest Interstate 5 freeway exit (Beach Boulevard).

This alternative would require rerouting two OCTA bus routes that serve the current station: Route 29 (the overall route length would decrease by about 0.9 mile).

Overall transit accessibility would be similar to that of the existing station with the rerouting. The cumulative change in route length for OCTA routes that serve the station would be minimal. Buses would access a designated transit plaza and bus bays using Stage Road and Beach Boulevard. In addition, OCTA identified Beach Boulevard between Fullerton and Huntington Beach as a transit opportunity corridor that may merit future investment in high-capacity or rapid transit service such as streetcar, bus rapid transit, or rapid bus (OCTA 2025a).

Bicyclists and pedestrians would access the station using Stage Road and Beach Boulevard. There are no existing bicycle facilities adjacent to this station alternative; OCTA is developing bikeway facility along Coyote Creek (OCTA 2015, 2025b). Stage Road and Beach Boulevard have a Class 2 bike path and pedestrian sidewalks. There is also the potential for a pedestrian bridge or undercrossing to be provided to Tulare Street, south of the rail corridor, to provide connectivity with residential neighborhoods in that area. This station alternative has a Walk Score of 77, or very walkable (Walk Score 2025b). This is the higher walk score of the two alternatives.

Increase TOD Potential: TOD could occur on the remaining portion of the acquired parcel not needed for the station. The station location is close to existing commercial development on Beach Boulevard, including the Los Coyotes Shopping Center, as well as the Amberwood Apartments at the corner of Stage Road and Dodds Avenue.

Minimize Need for Additional Right-of-Way: This alternative would affect six existing parcels in Buena Park:

- The first parcel is 127,054 square feet. An industrial and office building occupies the parcel.
- The second parcel is 24,121 square feet. An office building occupies the parcel.
- The third parcel is 34,998 square feet. An office building occupies the parcel.
- The fourth parcel is 21,169 square feet. An office building occupies the parcel.
- The fifth parcel is 107,874 square feet. An industrial and office building occupies the parcel.
- The sixth parcel is 33,650 square feet. An office building occupies the parcel.

A full acquisition of each parcel would be required with relocation of the businesses. The total property acquired for this location would be 348,866 square feet. An area of about 250,000 square feet would be required for the transit plaza, parking facilities, and connecting roadways (excluding the platform). The Authority could sell the unused portion of the parcel as a remnant parcel or retain it for future expansion potential.

4.1.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature related to the relocation of the Metrolink Station and not specific to the Beach Boulevard northwest quadrant. Some stakeholders expressed concerns related to relocating the existing station, but did not specify concerns or feedback related to the proposed location. City of Buena Park staff were instrumental in identifying the Beach Boulevard northwest quadrant as the proposed for the Metrolink Station. An significant business/employer is on the Beach Boulevard northeast quadrant and city staff were opposed to negatively affecting the operations of this business or the business property. City staff noted that the existing Metrolink Station had limited parking and the surrounding residential neighborhoods were affected by the overflow, so expressed an interest in the opportunity for growth that a new station could provide.

4.1.3 Ridership and Cost

Maximize Ridership Potential: Population and employment within 3 miles of the station alternative is used as a proxy for ridership potential. The estimated population residing within 3 miles of this station alternative is 152,794. The estimated employment within 3 miles of this station alternative is 122,481 (U.S. Census Bureau 2022).

Minimize Construction Costs: This location provides the required tangent length for the station platform, requires minimal track realignment, and avoids existing railroad control points. The platform would be at grade. No roadway reconstruction would be required for Beach Boulevard. The existing railroad grade separation at Beach Boulevard would need widening to accommodate approaches to the platform. Roadway reconstruction and new traffic signals would be required for Stage Road.

Minimize Maintenance Costs: This alternative minimizes maintenance costs because the platform, transit plaza, access roadways, and parking facilities would be at grade. Aerial or underground facilities would have higher maintenance costs because of the need to maintain infrastructure for vertical circulation (i.e., elevators, escalators, and stairs).

4.2 Beach Boulevard, Northeast

Figure 4-2 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location and the red line delineates the approximate extent of the required right-of-way.

Figure 4-2 Alternative 2: Beach Boulevard, Northeast

4.2.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Auto access for this alternative would be from River Way and Cascade Way. These streets connect with Beach Boulevard, a major arterial and designated state route that runs north-south adjacent to the station location. Beach Boulevard in the station vicinity has a year 2015 LOS of D (approaching unstable flow) during the a.m. peak and E (unstable flow) during the p.m. peak. The site is about 1.3 miles from the nearest Interstate 5 freeway exit (Beach Boulevard).

This alternative would require rerouting two OCTA bus routes that serve the current station: Route 29 (the overall route length would decrease by about 0.9 mile) and Route 123.

Overall transit accessibility would be similar to that of the existing station with the rerouting. The cumulative change in route length for OCTA routes that serve the station would be minimal. Buses would access a designated transit plaza and bus bays using River Way, Cascade Way, and Beach Boulevard. In addition, OCTA has identified Beach Boulevard between Fullerton Park-and-Ride and Downtown Huntington Beach as a transit opportunity corridor. More specifically, rapid bus is being considered that may merit future investment in high-capacity or rapid transit service such as streetcar, bus rapid transit, or rapid bus (OCTA 2018). Bicyclists and pedestrians would access the station using River Way, Cascade Way, and Beach Boulevard. There are no

existing or planned bicycle facilities adjacent to this station alternative. River Way, Cascade Way, and Beach Boulevard have pedestrian sidewalks. This station alternative has a Walk Score of 75, or very walkable (Walk Score 2025c).

Increase TOD Potential: TOD could occur on the remaining portion of the acquired parcel not needed for the station. The station location is close to existing commercial development on Beach Boulevard, including the McComber Shopping Center, as well as the McComber Creek Apartment Homes north of River Way.

Minimize Need for Additional Right-of-Way: This alternative would directly affect the following two parcels, which are both occupied by the same business:

- The first parcel is 135,840 square feet in size. An office building occupies the parcel.
- The second parcel is 270,725 square feet in size. An office building occupies the parcel.

A full acquisition of each parcel would be required with relocation of the business. The total property directly affected for this location would be 406,565 square feet. However, as depicted on Figure 4-2, the same business that occupies the two directly affected parcels (on the north side of the rail corridor) also occupies a parcel on the other side of the rail corridor (445,060 square feet, on the south side of the rail corridor). If the two parcels on the north side were to be acquired, the business may determine that such an acquisition would affect overall business activities at this location, requiring the parcel on the south side to also be acquired and the business as a whole to be relocated.

As such, right-of-way acquisition and relocation costs for this alternative would be expected to involve the acquisition of 851,625 square feet, at a significantly higher cost than for the two directly affected parcels. A portion of the parcels (the unused portion beyond the approximately 250,000 square feet needed for the transit plaza, parking facilities, and connecting roadways) could be sold as a remnant parcel or retained for future expansion potential.

4.2.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature and not specific to the Beach Boulevard northeast quadrant. However, during briefings and coordination with the City of Buena Park staff, it was stated that the Beach Boulevard northeast quadrant should not be considered as a possible station relocation site, because of the business impacts.

4.2.3 Ridership and Cost

Maximize Ridership Potential: The estimated population residing within 3 miles of this station alternative is 152,342. The estimated employment within 3 miles of this station alternative is 122,210 (U.S. Census Bureau 2022).

Minimize Construction Costs: This location provides the required tangent length for the station platform, requires minimal track realignment, and avoids existing railroad control points. The platform would be at grade. No roadway reconstruction would be required for Beach Boulevard. The existing railroad grade separation at Beach Boulevard would need widening to accommodate approaches to the platform. Roadway reconstruction would be required for Cascade Way and River Way, for turning lanes.

Minimize Maintenance Costs: This alternative minimizes maintenance costs because the platform, transit plaza, access roadways, and parking facilities would be at grade. Aerial or underground facilities would have higher maintenance costs because of the need to maintain infrastructure for vertical circulation (i.e., elevators, escalators, and stairs).

5 RECOMMENDATION

Table 5-1 provides a summary of the alternatives evaluation for each criterion specified in Table 2-2. The findings from the evaluation, as described in Chapter 4, Alternatives Evaluation, allow a comparative analysis to be made of each individual evaluation criterion prior to conducting a balanced comparison across all criteria.

Table 5-1 Comparison of Alternatives

Evaluation Criteria	Beach Boulevard, northwest	Beach Boulevard, northeast
Transportation and Land Use		
Maximize connectivity and accessibility	3	3
Increase transit-oriented development potential	3	3
Minimize need for additional right-of-way	2	1
Community Input		
Community comments and stakeholder agency support	3	2
Ridership and Cost		
Maximize ridership potential	3	2
Minimize construction costs	3	3
Minimize maintenance costs	3	3

3 = effectively meets this criterion. 2 = partially meets this criterion. 1 = does not meet this criterion.

Figure 5-1 provides a list of the performance metrics that were reviewed during development of the evaluation criterion ratings provided in Table 5-1.

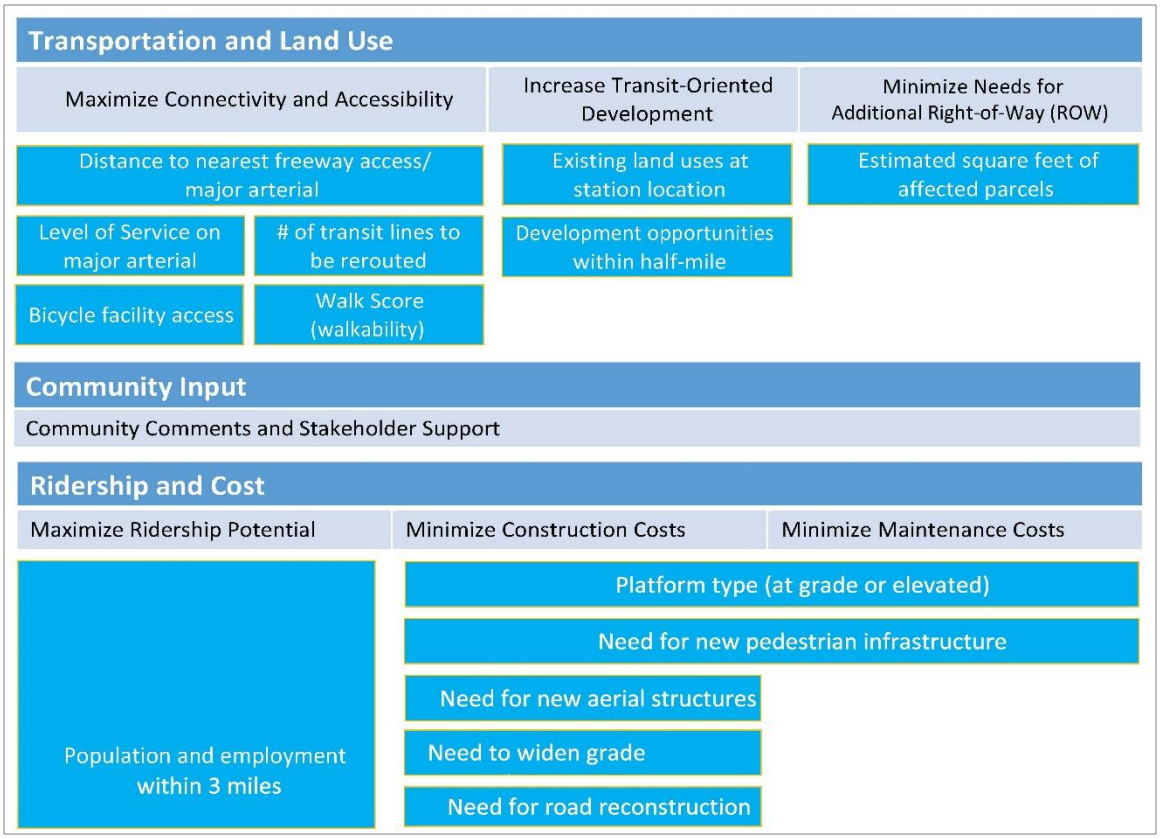


Figure 5-1 Evaluation Criterion Performance Metrics

Table 5-2 provides the performance metrics for each of the two alternatives.

Table 5-2 Summary of Performance Metrics by Alternative

Performance Indicator	Beach Boulevard, Northwest	Beach Boulevard, Northeast
1. Transportation and Land Use		
Maximize Connectivity and Accessibility		
Distance to nearest freeway access	1.3 miles (I-5 via Beach Blvd	1.3 miles (I-5 via Beach Blvd)
Distance to nearest major arterial	0.2 mile (Beach Blvd)	0.2 mile (Beach Blvd)
LOS on major arterial (AM peak/ PM peak)	D/E	D/E
Number of transit lines that would be rerouted/have increased route length	4 / 2	4 / 2
Bicycle facility access?	No, but planned for Coyote Creek	No
Walk score (0 low; 100 high)	77	75
Increase Transit-Oriented Development		
Existing land uses at station location	Light Industrial	Light Industrial
Development opportunities within a half-mile?	Significant	Significant

Performance Indicator	Beach Boulevard, Northwest	Beach Boulevard, Northeast
Minimize Need for Additional Right-of-Way		
Estimated square feet of affected parcels	348,866	851,625
2. Ridership and Cost		
Maximize Ridership Potential		
Population within 3 miles	152,794	152,342
Employment within 3 miles	122,481	122,210
Minimize Construction Costs		
Need for new aerial structures?	No	No
Need to widen existing grade separations?	Yes (Beach Blvd)	Yes (Beach Blvd)
Need for road reconstruction?	Medium	Medium
Minimize Construction Costs and Maintenance		
Platform type	At grade	At grade
Need for new pedestrian infrastructure?	Medium	Medium

I = Interstate; LOS = level of service

Of the two station location alternatives carried into the Step 2 evaluation process, the Authority recommends advancing Alternative 1: Beach Boulevard, northwest as the top-ranked alternative that will be evaluated in greater detail as a component of the Shared Passenger Track Alternatives as part of the project section EIR/EIS. The Authority bases this recommendation on the following considerations:

- **Maximize Connectivity and Accessibility:** This alternative would have good access to major arterials and Interstate 5, and good transit connectivity.
- **Increase Transit-Oriented Development Potential:** This alternative would have high TOD potential because of its proximity to existing mixed-use development.
- **Minimize Need for Additional Right-of-Way:** This alternative would require substantially less right-of-way acquisition than Alternative 2.
- **Community Comments and Stakeholder Agency Support:** This alternative would result in fewer impacts on businesses, which was noted as a key concern by city staff.
- **Maximize Ridership Potential:** This alternative would have higher population within a 3-mile catchment area than Alternative 2.
- **Minimize Capital Costs:** The station platform for this alternative would be at grade. No new aerial structures would be required. Roadway reconstruction costs would be similar to those of Alternative 2.
- **Minimize Maintenance Costs:** This alternative would minimize maintenance costs by having the station platform at grade.

The existing Metrolink Buena Park Station could remain open during construction of the new station, so riders would experience minimal service disruption.

6 REFERENCES

California Department of Transportation (Caltrans). 2012. *Alternatives Analysis – Frequently Asked Questions.* October. www.dot.ca.gov/ser/downloads/guidance/alternative_analyfaq.pdf.

California High-Speed Rail Authority (Authority). 2005. HSR Program EIR/EIS Criteria: Final Program EIR/EIS for the Proposed California High-Speed Train System, Chapter 6A. August.

———. 2011. Technical Memorandum: Alternatives Analysis Methods for Project EIR/EIS. Version 3. Signed January 2011. www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_RevisAA_MethodsVer3.pdf (accessed July 2018).

———. 2023. *California High-Speed Train Project Anaheim to Los Angeles Section Supplemental Alternatives Analysis Report.* November. https://hsr.ca.gov/wp-content/uploads/2023/11/231025-LA-A-SAA-Final-Version11-clean-A11Y.pdf.

———. 2025. *Los Angeles to Anaheim Project Section Transportation Technical Report*.

California High-Speed Rail Authority (Authority) and Federal Railroad Administration (FRA). 2005. *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System*. Sacramento and Washington, DC: California High-Speed Rail Authority and Federal Railroad Administration. August. https://hsr.ca.gov/programs/environmental-planning/program-eir-eis-documents-for-the-statewide-high-speed-rail-system-tier-1/final-program-environmental-impact-report-environmental-impact-statement-eir-eis-for-the-proposed-california-high-speed-train-system-2005/.

———. 2016. *Los Angeles to Anaheim Project Section: Supplemental Alternatives Analysis Report*, pages 5 and 6; California High-Speed Rail Authority. April.

City of Buena Park. 2022. *City of Buena Park 2035 General Plan*. Buena Park, CA: December 7, 2010. www.buenapark.com/city-departments/community-development/planning-division/general-plan.

Environmental Data Resources, Inc. (EDR). 2015. EDR DataMap™ Environmental Atlas™, California High-Speed Rail – LA to Anaheim (West, Middle, East), Los Angeles, CA, Inquiry Numbers: 4384136.5s, 4395165.5s, and 4395171.5s, August 27.

Orange County Transportation Authority (OCTA). 2015. OC Loop: 70/30 Plan. June.

———. 2018. OC Transit Vision - Transit Opportunity Corridors: Initial Screening and Preliminary Recommendations.

———. 2025a. 2024 OC Transit Vision. May.

———. 2025b. OC Loop. https://www.octa.net/getting-around/active/oc-bike/oc-loop/.

Southern California Regional Rail Authority (SCRRA). 2014. SCRRA Design Criteria Manual. November.

———. 2017. Metrolink Criteria: Presentation on Station Location Feasibility Study: San Gabriel Valley. May.

———. 2023a. Metrolink Fact Sheet, FY2022-23, Q4 (Apr. 1 – Jun. 30, 2023).

———. 2023b. Metrolink Timetable October 23, 2023. All times listed are Pacific Standard Time (PST).

U.S. Census Bureau. 2022. ACS Total Population. *American Community Survey, ACS 5-Year Estimates Data Profiles, Table B1003.*

Walk Score. 2025a. 8400 Lakeknoll Dr. August. https://www.walkscore.com/score/8400-lakeknoll-dr-buena-park-ca-90621.

———. 2025b. 5450 Dodds Ave. August. https://www.walkscore.com/score/5450-dodds-ave-buena-park-ca-90621.

———. 2025c. 5530 River Way. August. https://www.walkscore.com/score/5530-river-way-buena-park-ca-90621.

California High-Speed Rail Authority

Los Angeles to Anaheim Project Section

Metrolink Commerce Station Relocation Analysis

December 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.

California High-Speed Rail Project

Los Angeles to Anaheim Project Section

METROLINK COMMERCE STATION RELOCATION ANALYSIS

December 2025

TABLE OF CONTENTS

1 INTRODUCTION 1-1
1.1 High-Speed Rail System Background 1-1
1.2 Los Angeles to Anaheim Project Section Overview 1-2
1.2.1 Purpose and Need 1-2
1.2.2 Description 1-2
1.3 Metrolink Commerce Station Overview 1-5
1.3.1 Existing Conditions 1-5
1.3.2 Need for Station Reconstruction/Relocation 1-9
1.3.3 Agency and Community Outreach 1-10
2 METHODOLOGY 2-1
3 DESCRIPTION OF ALTERNATIVES 3-1
4 ALTERNATIVES EVALUATION 4-1
4.1 Eastern Avenue 4-1
4.1.1 Transportation and Land Use 4-1
4.1.2 Community Input 4-2
4.1.3 Ridership and Cost 4-2
4.2 Sheila Street/Fidelia Avenue 4-3
4.2.1 Transportation and Land Use 4-3
4.2.2 Community Input 4-4
4.2.3 Ridership and Cost 4-4
4.3 Reconstruct Existing Station 4-5
4.3.1 Transportation and Land Use 4-5
4.3.2 Community Input 4-5
4.3.3 Ridership and Cost 4-5
4.4 Garfield Avenue 4-6
4.4.1 Transportation and Land Use 4-6
4.4.2 Community Input 4-7
4.4.3 Ridership and Cost 4-7
4.5 Maple Avenue 4-7
4.5.1 Transportation and Land Use 4-8
4.5.2 Community Input 4-9
4.5.3 Ridership and Cost 4-9
5 RECOMMENDATION 5-1
6 REFERENCES 6-1

Tables

Table 2-1 Evaluation Criteria for Metrolink Station Alternatives 2-3
Table 2-2 Evaluation Methods and Information Sources for Metrolink Station Alternatives 2-4
Table 5-1 Comparison of Alternatives 5-1
Table 5-2 Summary of Performance Metrics by Alternative 5-3

Figures

Figure 1-1 Los Angeles to Anaheim Project Section Proposed Alignment 1-4
Figure 1-2 Existing Metrolink Commerce Station 1-6
Figure 1-3 Metrolink Lines and Stations 1-6
Figure 1-4 Activity Centers in Study Area 1-7
Figure 1-5 Existing Level of Service, Roadway Segments in Study Area 1-9
Figure 1-6 Existing Level of Service, Intersections in Study Area 1-9
Figure 1-7 Collaborative Approach 1-10
Figure 2-1 Screening Process to Identify and Evaluate Metrolink Station Alternatives 2-1
Figure 3-1 Station Location Options 3-2
Figure 4-1 Alternative 1: Eastern Avenue 4-1
Figure 4-2 Alternative 2: Sheila Street/Fidelia Avenue 4-3
Figure 4-3 Alternative 4: Garfield Avenue 4-6
Figure 4-4 Alternative 5: Maple Avenue 4-8
Figure 5-1 Evaluation Criterion Performance Metrics 5-2

ACRONYMS AND ABBREVIATIONS

Term	Definition
Amtrak	National Railroad Passenger Corporation
Authority	California High-Speed Rail Authority
BNSF	BNSF Railway
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FRA	Federal Railroad Administration
HSR	High-Speed Rail
I-	Interstate
LAUS	Los Angeles Union Station
LOS	level of service
LOSSAN Corridor	Los Angeles – San Diego – San Luis Obispo Rail Corridor
Metro	Los Angeles County Metropolitan Transportation Authority
project section	Los Angeles to Anaheim Project Section
TOD	transit-oriented development
UPRR	Union Pacific Railroad

1 INTRODUCTION

The California High-Speed Rail Authority (Authority) is assessing alternatives for the California High-Speed Rail (HSR) project section between Los Angeles and Anaheim. This report provides an evaluation of alternatives either to relocate or reconstruct the existing Metrolink Commerce Station. The purposes of this report are as follows:

- Provide planning, environmental, and preliminary engineering information on a range of alternatives considered to reconstruct or relocate the Metrolink Commerce Station in the Los Angeles to Anaheim Project Section (project section).
- Describe how the alternatives compare against a set of specified evaluation criteria.
- Recommend an alternative to advance for additional analysis in the environmental clearance process and remove the other alternatives from further evaluation.

1.1 High-Speed Rail System Background

The Authority is responsible for managing the planning, design, construction, and operation of the first HSR service in the nation. Traveling at speeds of up to 220 miles per hour, the completed system would total about 800 miles with up to 24 stations. In the *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System* (Authority and FRA 2005), the Authority stated that the goals of the HSR system are to:

- Connect, for the first time, all of the state's major economic and population centers.
- Contribute to economic development by creating new jobs and training opportunities to encourage workforce development.
- Protect the environment by:
  - Removing an estimated 317,000 automobiles off the road on a daily basis
  - Decreasing greenhouse gas emissions by an estimated 57 million metric tons of carbon-dioxide equivalents
  - Preserving agricultural and protected lands as well as wildlife corridors by limiting, wherever possible, the HSR alignment presenting a barrier to wildlife movement
  - Reducing urban sprawl through transit-oriented development (TOD) around station area
  - Minimizing potential impacts on communities and the environment by utilizing to the maximum extent practicable existing transportation or utility corridors for the HSR alignment.
- Serve the transportation needs of the state's increasing population, expected to reach about 50 million by the year 2050, by:
  - Providing a comfortable, safe, frequent, and reliable transportation alternative to California's critically overused highways and commercial airports
  - Increasing the capacity for intercity travel
  - Improving the efficiency of the intercity transportation system
  - Maximizing intermodal transportation opportunities by locating stations in areas accessible to local mass transit or other modes of transportation

The Authority is developing the system in two phases: Phase 1 would connect the downtowns of San Francisco, Los Angeles, and Anaheim via the Pacheco Pass and the Central Valley. Phase 2 would extend the Central Valley alignment north to Sacramento and the Los Angeles alignment east to the Inland Empire and then south to San Diego.

Because the system would run through areas of the state with extremely different geographical, environmental, and economic issues, the Authority and the Federal Railroad Administration (FRA) divided the system into 10 project sections. The Los Angeles to Anaheim Project Section would

run from Los Angeles Union Station (LAUS) to the Anaheim Regional Transportation Intermodal Center, as depicted on Figure 1-1.

1.2 Los Angeles to Anaheim Project Section Overview

1.2.1 Purpose and Need

The project section has the following purpose statement (Authority and FRA 2016):

> *The purpose of this project is to implement the Los Angeles to Anaheim section of the California High-Speed Train system to provide the public with electric-powered high-speed rail service that provides predictable and consistent travel times between major urban centers and connectivity to airports, mass transit, and the highway network in the Los Angeles-Orange counties metropolitan region, and connects to the rest of the system.*

The project section has the following objectives:

- Provide intercity travel capacity to supplement critically overused interstate highways and commercial airports.
- Meet future intercity travel demand that will be unmet by current transportation systems and increase capacity for intercity mobility.
- Maximize intermodal transportation opportunities by locating stations to connect with local transit, airports, and highways.
- Improve the intercity travel experience for Californians by providing comfortable, safe, frequent, and reliable high-speed travel.
- Provide a sustainable reduction in travel time between major urban centers.
- Increase the efficiency of the intercity transportation system.
- Minimize conflicts between freight and passenger rail services.
- Maximize the use of existing transportation corridors and rights-of-way, to the extent feasible.
- Develop a practical and economically viable transportation system that can be implemented in phases and generate revenues in excess of operations and maintenance costs.
- Provide intercity travel in a manner sensitive to and protective of the region's natural and agricultural resources and reduce emissions and vehicle miles traveled for intercity trips.

1.2.2 Description

The project section is approximately 30 miles long and serves the cities of Los Angeles, Vernon, Bell, Commerce, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, and Anaheim. The alignment proposed for the section would use the existing LOSSAN Corridor, sharing infrastructure with the current passenger-rail and freight-rail operations provided by the National Railroad Passenger Corporation (Amtrak), Metrolink (Southern California Regional Rail Authority), BNSF Railway (BNSF), and Union Pacific Railroad (UPRR).

The existing Metrolink rail stations that would also serve the project section are LAUS in downtown Los Angeles, Commerce, Norwalk/Santa Fe Springs, Buena Park, Fullerton, and Anaheim Regional Transportation Intermodal Center in Anaheim, as depicted on Figure 1-1. The HSR station facilities would integrate with existing facilities, where available, including tracks and platforms, auto and bike parking, passenger pick-up/drop-off zones, bus bays, and passenger amenities.

The *Los Angeles to Anaheim Project Section: Supplemental Alternatives Analysis Report* (Authority and FRA 2016) considered two alignment alternatives: Alternative 1 (formerly called the *Dedicated High-Speed Train Alternative*) and Alternative 2 (formerly called the *Consolidated Shared-Track Alternative*). After evaluating both alternatives, the Authority and FRA eliminated

Alternative 1 from further consideration based on its high capital costs and its potential to adversely affect sensitive environmental resources. The Authority subjected Alternative 2, referred to as the 2018 HSR Project Alternative, to additional analyses and design refinements, which reduced the acreage needed to secure right-of-way for HSR service within the LOSSAN Corridor.

Following interested party feedback on the BNSF Colton Component received during scoping in 2020, three new alternatives were introduced in the Supplemental Alternatives Analysis Report (Authority 2023) as alternatives to the 2018 HSR Project Alternative: the Shared Passenger Track Alternative, 3A – Freeway Tunnel Alternative, and 3B – UPRR Alignment Alternative. The Supplemental Alternatives Analysis Report identified the Shared Passenger Track Alternative to be evaluated further in the EIR/EIS. The Shared Passenger Track Alternative would follow the same alignment as the 2018 HSR Project Alternative, but would not include the BNSF Colton or Lenwood Components.

After the 2023 Supplemental Alternatives Analysis, additional design refinements and outreach occurred, and in May 2024, the Preliminary Impacts Assessment Report was presented to the Authority Board. 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. The two build alternatives would be similar in all aspects, except for the light maintenance facility size and location. Shared Passenger Track Alternative A proposes a light maintenance facility at 26th Street, which would have storage capacity for 24 trainsets, and Shared Passenger Track Alternative B proposes a light maintenance facility at 15th Street, which would have storage capacity for 20 trainsets. In May 2024, the Board identified Shared Passenger Track Alternative A without an optional intermediate station as the Preferred Alternative.

Figure 1-1 depicts the proposed alignment for the Shared Passenger Track Alternatives in the project section.

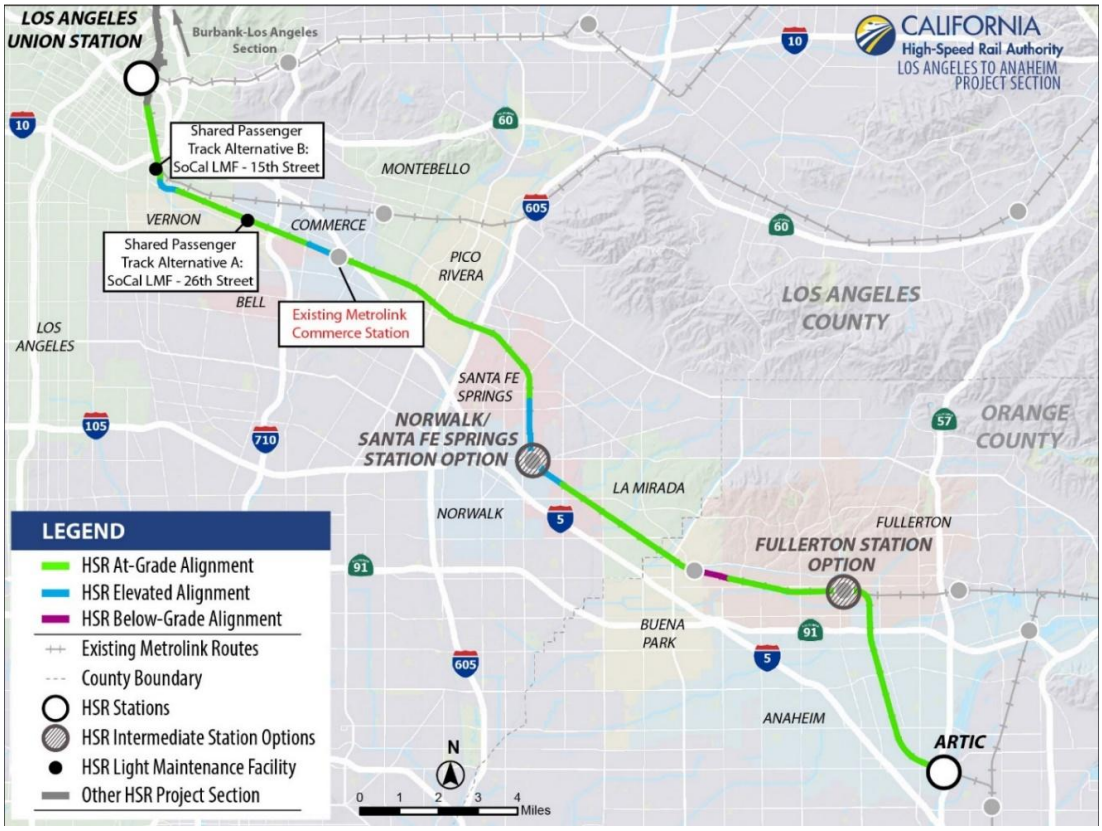


Figure 1-1 Los Angeles to Anaheim Project Section Proposed Alignment

The HSR system between Los Angeles and Anaheim would operate primarily within the existing LOSSAN Corridor right-of-way on a combination of at-grade, elevated, and below-grade tracks. The majority of the corridor, from Vernon to Fullerton—a distance of approximately 22 miles—would consist of four mainline tracks, two with overhead electrification to provide power to the HSR services. All passenger rail services, including HSR, Amtrak, and Metrolink, would operate on the two electrified tracks. 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. In this project section, the HSR tracks would not be fully grade separated or solely dedicated to HSR trains, and the design would limit the maximum speed of HSR to 90 miles per hour.

To accommodate HSR, the project section would improve the Los Angeles to Anaheim corridor by providing:

- New and upgraded track (new tracks and realignment of existing tracks)
- Upgrades to the traction power system
- Next-generation signaling technology, with intrusion sensors and an early earthquake-warning system
- Maintenance facilities
- Grade separations
- Drainage improvements
- Communications towers

- Security fencing

The new and upgraded tracks would allow other passenger rail services—Amtrak Pacific Surfliner, Amtrak long distance, and Metrolink commuter rail lines—to share tracks with the HSR system. Separate tracks would be dedicated to BNSF and UPRR freight trains, but freight tracks could also use the shared tracks. 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 crossing would be partially grade separated, with passenger rail on an elevated structure and freight rail remaining at grade. These would be added to prevent conflicts with other modes of transport—including auto, bicycles, and pedestrians—and ensure optimal operations and safety benefits for the HSR and passenger rail trains.

In Commerce, Shared Passenger Track Alternative A and Shared Passenger Track Alternative B include a 1.4-mile viaduct section, beginning just west of Eastern Avenue and ending just west of I-5 (depicted in blue on Figure 1-1). HSR, Amtrak, and Metrolink trains would share the viaduct, which would provide a grade separation for the passenger rail trains from the freight trains accessing BNSF's Commerce Yard. The viaduct would help to alleviate delays to passenger rail services by eliminating the need for the slow-moving freight trains to cross the passenger rail tracks to enter the BNSF yard.

1.3 Metrolink Commerce Station Overview

1.3.1 Existing Conditions

The existing Metrolink Commerce Station, depicted on Figure 1-2, is at 6433 East 26th Street in Commerce, directly south of the LOSSAN Corridor and about 0.2 mile south of I-5. Metrolink's Commerce Station is about 9 miles southeast of LAUS, on the Metrolink Orange County Line about 8 miles northwest of the Metrolink Norwalk/Santa Fe Springs Station in Norwalk (as depicted on Figure 1-3). Metrolink's Commerce Station is about 1.5 miles southwest of the Montebello/Commerce Station, which serves a different Metrolink line (the Riverside Line).

Commerce Station has 135 parking spaces (plus five handicapped parking spaces) and a single platform, 695 feet in length, for passenger boarding and alighting located to the south of the rail tracks. East 26th Street provides vehicle access to and from the station; the street has one lane in each direction and connects with Garfield Avenue, a major north-south arterial about 0.4 mile east of the station.

The area adjacent to the station lacks bicycle and pedestrian infrastructure (i.e., bicycle lanes, bicycle parking and storage, curb extensions, sidewalks, signalized pedestrian crossings, and signage).

On weekdays, eight trains from the Orange County Line—one of the busiest lines in the Metrolink system, providing service between LAUS and Oceanside with about 2,950 riders each weekday—stop at the station during peak travel periods (SCRRA 2023a). Four northbound trains going to Los Angeles stop at 6:59 a.m., 7:35 a.m., 8:19 a.m., and 9:11 a.m. and four southbound trains going to Orange County stop at 3:39 p.m., 4:03 p.m., 4:45 p.m., and 5:55 p.m. (SCRRA 2023b). Other Orange County Line trains operate in the corridor but do not stop at the Commerce Station. Additional passenger rail services that operate in the corridor, but do not stop at the Commerce Station, are the Metrolink 91/Perris Valley Line between LAUS and Perris, Amtrak Pacific Surfliner service between San Luis Obispo and San Diego, and Amtrak Southwest Chief service between LAUS and Chicago.

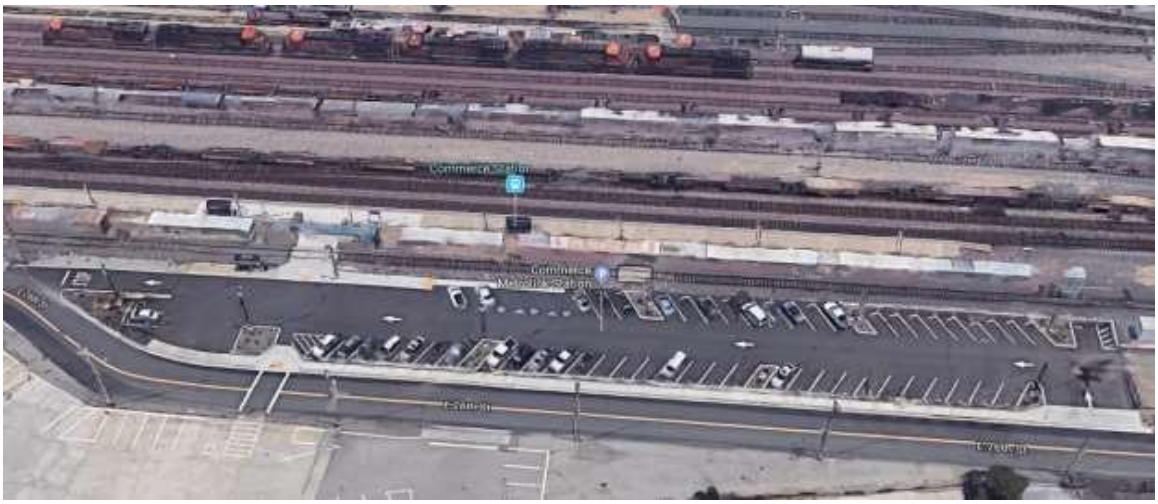
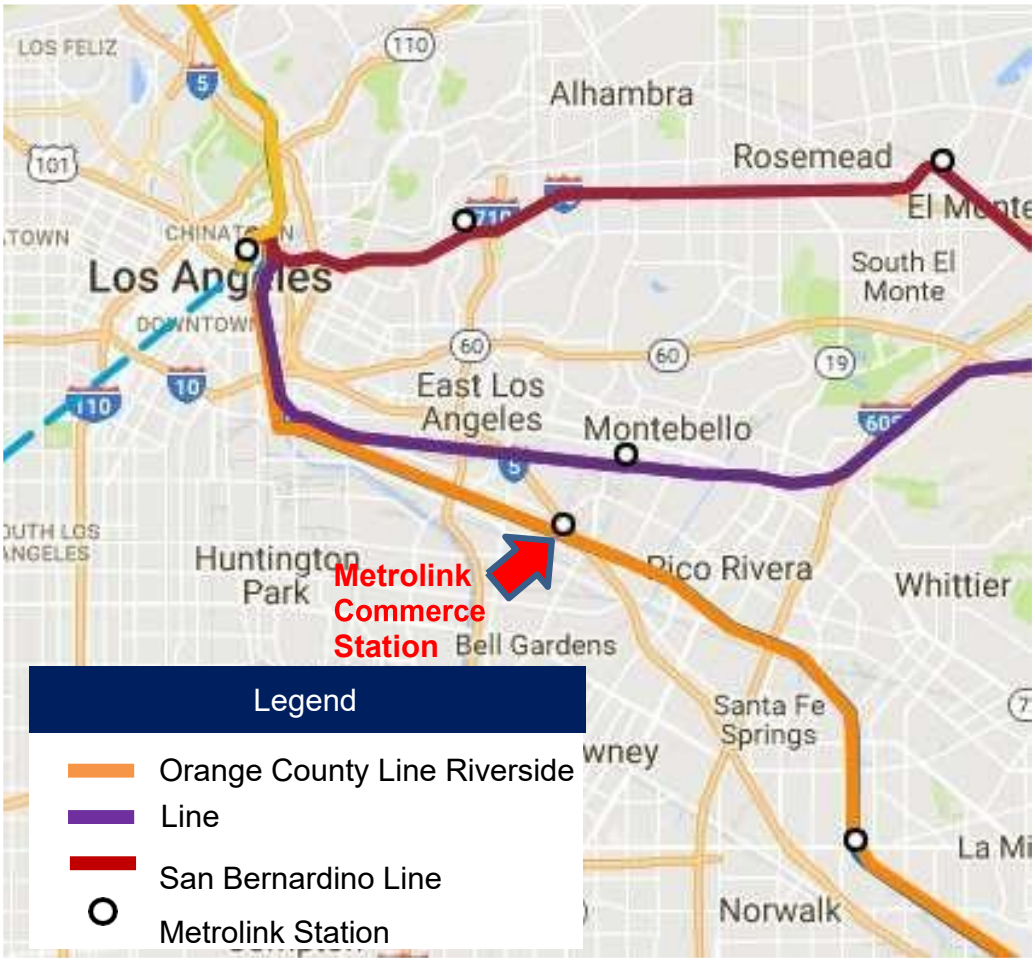


Figure 1-2 Existing Metrolink Commerce Station



Stations represented by white dots with black outline.

Figure 1-3 Metrolink Lines and Stations

The Commerce Station is within an industrial area of the city, just west of BNSF's Commerce Yard and 0.5 mile or more away from the city's residential neighborhoods, which are primarily northwest of the station. As depicted on Figure 1-4, activity centers in the city include:

- **Costco Wholesale** near Telegraph Road and Washington Boulevard, about 0.3 mile north of the station
- **Commerce Casino** near Telegraph Road and Tubeway Avenue, about 0.5 mile northwest of the station
- **Home Depot** near Telegraph Road and Church Road, about 0.6 mile east of the station
- **Commerce City Hall and Public Library** near Commerce Way and Jillson Street, about 1 mile northwest of the station
- **Citadel Outlets** near Telegraph Road and Hoefner Avenue, about 1.2 miles northwest of the station
- **Commerce Shopping Center** near Whittier Boulevard and Gerhart Avenue, about 1.9 miles northwest of the station

Figure 1-4 Activity Centers in Study Area

Two bus routes currently serve the Commerce Station (City of Commerce 2023):

- **City of Commerce Route 700 (Orange) Route:** Locations served by this route include the Metrolink Commerce Station, Commerce City Hall, the Citadel Outlets, and the Commerce Shopping Center. The route, which the City of Commerce operates as a circulator system, makes about one trip every 90 minutes on weekdays from about 5:30 a.m. to 6:15 p.m.
- **City of Commerce 26th Street Shuttle:** Locations served by this route include the Metrolink Commerce Station, Commerce City Hall, the Citadel Outlets, and the Commerce Casino. The route, which the City of Commerce operates as a circular system, makes about one trip every 30 to 45 minutes on weekday mornings from about 7:00 a.m. to 9:30 a.m. and about one trip with the same service intervals on weekday afternoons from about 2:45 p.m. to 5:30 p.m.

Roadway Classification (source: Federal Highway Administration)

Principal Arterials

High traffic volume corridors that serve major activity centers of metropolitan areas and provide a high degree of mobility.

Minor Arterials

Provide service for trips of moderate length, serve geographic areas that are smaller than principal arterials and offer connectivity to the higher arterial system.

Collectors

Gather traffic from local roads and funnel them to the arterial network.

Local Roads

Are not intended for use in long-distance travel, except at the origin or destination end of the trip, because of their provision of direct access to abutting land.

Level of Service (source: Transportation Research Board)

Level of service (LOS) is a measure describing operational conditions within a traffic stream based on speed, freedom to maneuver, traffic interruptions, comfort, and convenience.

For urban streets, LOS ranges from A to F based on traffic flow:

- LOS A: free-flow speeds with unimpeded vehicle movement
- LOS B: reasonably unimpeded operations at or near free-flow speeds
- LOS C: stable traffic operations with speeds lower than free flow
- LOS D: approaching unstable traffic flow
- LOS E: unstable traffic flow with substantial travel delays
- LOS F: extremely low speeds with high volumes, high delays, and extensive queuing

For signalized intersections, LOS ranges from A to F based on average delay per vehicle:

- LOS A: Delay of less than or equal to 10 seconds per vehicle
- LOS B: Delay of 10 to 20 seconds per vehicle
- LOS C: Delay of 20 to 35 seconds per vehicle
- LOS D: Delay of 35 to 55 seconds per vehicle
- LOS E: Delay of 55 to 80 seconds per vehicle
- LOS F: Delay of more than 80 seconds per vehicle

The volume-to-capacity ratio of a roadway is the basis for determining roadway segment level of service (LOS), a measure for the quality of traffic flow. Existing LOS data are available based on the current methodology and findings of the draft *Los Angeles to Anaheim Project Section Transportation Technical Report* (Authority 2025a) as identified on Figure 1-5. Garfield Avenue operates at worse than LOS D during the a.m. and p.m. peak periods, while the other roadways (Eastern Avenue, Telegraph Road, and Greenwood Avenue) operate at LOS A to C during the a.m. and p.m. peak.

Walk Score (source: www.walkscore.com)

Walk Score measures the walkability of an address on a scale from 0 (lowest) to 100 (highest) based on walking routes to nearby amenities in several categories (including grocery stores, restaurants, parks, schools, shopping, and entertainment) and the distance to those amenities. Amenities within a 5-minute walk score maximum points; amenities that are more than a 30-minute walk score no points.

Walk Score is a private company founded in 2007 that developed the Walk Score metric, which measures the walkability of an address. The station site has a Walk Score of 18, or highly car dependent (Walk Score 2025a). This Walk Score value is relevant to pedestrian accessibility and TOD potential of the existing Commerce Station.

Garfield Avenue in the station vicinity has a year 2015 LOS of F (breakdown flow) during the a.m. peak and E (unstable flow) during the p.m. peak. These LOS values are relevant to roadway accessibility of the existing Commerce Station.

There are 13 study intersections identified in this area, as depicted on Figure 1-6, that operate at LOS D or better during both the a.m. and p.m. peak. Intersections that operate at worse than LOS D, primarily in the p.m. peak, are Eastern Avenue/Driveway (south of Commerce Way), Garfield Avenue/Bandini Boulevard, Bandini Boulevard/I-5 ramps, and Telegraph Road/Maple Avenue.

Figure 1-5 Existing Level of Service, Roadway Segments in Study Area

Figure 1-6 Existing Level of Service, Intersections in Study Area

1.3.2 Need for Station Reconstruction/Relocation

Metrolink's Commerce Station is in the proposed 1.4-mile viaduct section of the Shared Passenger Track Alternative A and Shared Passenger Track Alternative B alignment in Commerce, beginning just west of Eastern Avenue and ending just west of I-5. The purpose of the viaduct is to grade separate passenger rail traffic from freight trains accessing BNSF's Commerce Yard. Because the passenger rail tracks would be on viaduct at the location of the

existing station, it would be necessary either to reconstruct the station by raising the platform to the same elevation as the rail tracks or relocate the station to a different location.

1.3.3 Agency and Community Outreach

This report describes how evaluation measures applied through a collaborative process helped the Authority determine recommendations for an alternative advanced for environmental analysis. The Authority intends this report to provide sufficient information and documentation on how evaluation criteria and performance metrics have been applied to potential alternatives to optimize project objectives, minimize potential environmental impacts, and be responsive to input received from the communities along the corridor.

The Authority evaluates project alternatives using evaluation criteria, including community comments and stakeholder agency support, which correspond to the project's purpose and need and objectives. Figure 1-7 depicts the collaborative approach to the alternatives evaluation. This approach seeks to avoid or minimize potential adverse impacts by balancing the project objectives, environmental resources, and community comments for alternatives.

The collaborative approach balances project objectives, natural resources and community concerns.

Figure 1-7 Collaborative Approach

The Authority is committed to a broad and inclusive public outreach program. The Authority is working to develop a statewide HSR program while developing shared infrastructure in the region that supports the future service needs of the Los Angeles to Anaheim project corridor while improving corridor safety and reliability. Input is necessary to gather specific and detailed information on how the proposed alternatives could perform within each community, and how alternatives could avoid or minimize potential impacts.

The Authority conducted ongoing technical coordination briefings with city staff at key project milestones and prior to hosting public meetings. Additionally, the Authority hosted public outreach opportunities to share information and receive feedback related to the project. This includes a community workshop and information booths at events in Commerce, and an in-person open house meeting in Montebello in 2018. Because of the health and safety precautions in response to the COVID-19 stay-at-home mandate, the Authority conducted the 2020 scoping meetings virtually; all meetings included language interpretation services and call-in options.

2 METHODOLOGY

The purpose of this analysis is to conduct a preliminary evaluation of the alternatives for reconstructing and relocating the Metrolink Commerce Station, and select a recommended alternative for additional evaluation in the project section Draft EIR/EIS. The alternatives screening process enabled the Authority to identify a reasonable[1] range of station reconstruction and relocation alternatives that were determined to be:

- Technically and economically feasible
- Capable of meeting the project's purpose and need as well as the goals and objectives of federal and state agencies with jurisdiction over the HSR system
- Able to avoid or significantly reduce adverse impacts on environmental and community resources

The Authority's evaluation of the Metrolink Commerce Station reconstruction or relocation alternatives follows the three-step screening process depicted on Figure 2-1.

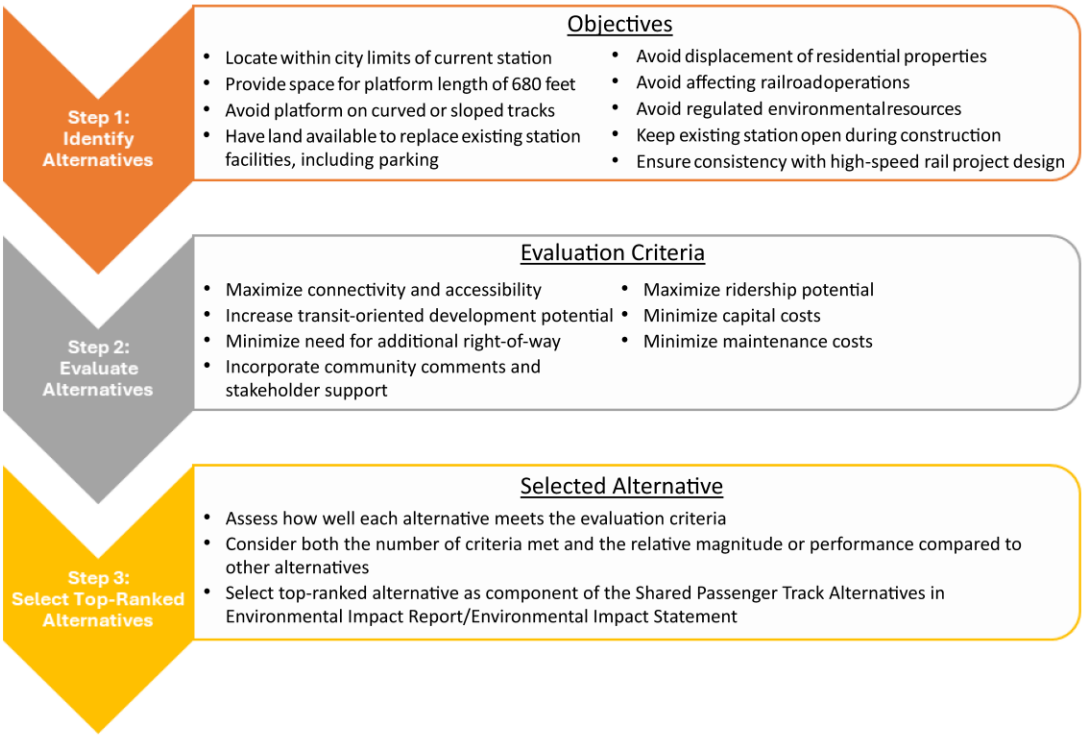


Figure 2-1 Screening Process to Identify and Evaluate Metrolink Station Alternatives

These objectives and criteria have their basis in the Authority's methodology for its alternatives analysis and programmatic environmental documents as well as the criteria Metrolink uses to

[1] Under the National Environmental Policy Act, "reasonable is generally understood to mean those technically and economically feasible project alternatives that would satisfy the primary objectives of the project defined in the Purpose and Need (P&N) statement" (Caltrans 2012).

evaluate alternative locations for its stations.[2] The three steps in the screening process are as follows.

Step 1: Identify Alternatives: The Authority identified station reconstruction or relocation alternatives for the Metrolink Commerce Station through the application of the nine objectives depicted on Figure 2-1, which correspond to the goals of the overall HSR system (described in Section 1.1, High-Speed Rail System Background) as well as the purpose, need, and objectives that pertain specifically to the project section (described in Section 1.2, Los Angeles to Anaheim Project Section Overview). The objectives stipulate that the alternatives must:

1. Be within the city limits of the current station's location (i.e., Commerce)
2. Have sufficient space for a minimum platform length of 680 feet, as specified in Metrolink station design criteria
3. Avoid placing the station platform on curved or sloped tracks. The HSR and Metrolink design criteria suggest that placing station components on curved or sloped track should be avoided and the HSR design criteria specifies that station tracks must be level with respect to the track's vertical slope.
4. Have sufficient land available at the station site to replace the existing station facilities, including the number of parking spaces at the current station (the existing Commerce Station has 140 parking spaces)
5. Avoid displacement of residential properties
6. Avoid negatively affecting the operations of existing railroads including the mainline tracks, yards, and spurs
7. Avoid negatively affecting regulated environmental resources, which include parks, recreational areas, water resources, Section 4(f) resources, cultural sites, historical sites/ properties, and communities
8. Keep the existing station open during construction of the new or reconstructed station
9. Ensure consistency with other planned design elements of the project section alternative, including new tracks, grade separations, and aerial structures

The Authority identified alternatives in this step after an initial review of Commerce Station's existing conditions and the conceptual design of the planned viaduct section of the Shared Passenger Track Alternative A and Shared Passenger Track Alternative B alignment. After a more thorough review of the identified alternatives and the ability of each alternative to meet the Step 1 objectives, the Authority advanced to Step 2 those alternatives that adhered to each of the objectives.

Step 2: Evaluate Alternatives: This step evaluates the alternatives identified in Step 1 using a set of evaluation criteria that correspond to the goals of the overall HSR system and the purpose, need, and objectives of the project section. The Authority defined Step 2 evaluation criteria that relate specifically to the alternatives for reconstructing or relocating existing Metrolink stations and organized the criteria into the following categories:

A. Transportation and Land Use
B. Community Input
C. Ridership and Cost
D. Environmental Impacts

Table 2-1 presents these criteria.

[2] The evaluation criteria in the program-level EIR/EIS are relevant, as this was the first phase of the Authority's tiered environmental review process that led to more detailed project-level environmental reviews and decision making that is currently being conducted (Authority 2005, 2010; SCRRA 2017).

- The first column, Metrolink Criteria, presents the criteria Metrolink uses when evaluating Metrolink station locations.
- The second column, HSR Alternatives Analysis Criteria, presents the criteria the Authority uses when evaluating alternative HSR station locations in a project-level alternatives analysis.
- The third column, HSR Program EIR/EIS Criteria, presents the criteria the Authority uses when evaluating alternative HSR station locations in a program-level EIR/EIS.
- The fourth column, HSR Metrolink Station Reconstruction or Relocation Criteria, presents the criteria the Authority will use to evaluate alternatives to reconstruct or relocate Metrolink stations. These criteria were selected based on an intent to make sure each primary evaluation area from the criteria previously specified by the Authority and by Metrolink for alternative station locations was covered (i.e., criteria were defined that encompass previously specified relevant criteria).

Table 2-1 Evaluation Criteria for Metrolink Station Alternatives

Metrolink Criteria	HSR Alternatives Analysis Criteria	HSR Program EIR/EIS Criteria	HSR Metrolink Station Relocation Analysis Criteria
A. Transportation and Land Use			
Maximize regional connectivity	Maximize connectivity and accessibility	Maximize connectivity and accessibility	Maximize connectivity and accessibility
Maximize transit accessibility			
Maximize ADA and first/ last mile			
Parking considerations	Maximize TOD potential	Maximize compatibility with existing and planned development	Increase TOD potential
Land use considerations	Maximize compatibility with HSR supportive land use zoning and policies		Minimize need for additional ROW
B. Community Input			
Community & stakeholder agency comments	Community & stakeholder agency comments	Community & stakeholder agency comments	Community comments & stakeholder agency support
C. Ridership and Cost			
Ridership	Maximize ridership/revenue potential	Maximize ridership/revenue potential	Maximize ridership potential
Minimize costs	Minimize operating and capital costs	Minimize operating and capital costs	Minimize construction costs
Minimize impacts on rail and bus operations	Maximize system operability		Minimize maintenance costs

Metrolink Criteria	HSR Alternatives Analysis Criteria	HSR Program EIR/EIS Criteria	HSR Metrolink Station Relocation Analysis Criteria
D. Environmental Impacts			
Minimize physical impacts (ROW, property, environmental, utility)	Minimize engineering challenges and ROW constraints	Minimize impacts on social and economic resources	Environmental impacts are covered in the Step 1 objectives (avoid displacement of residential properties, avoid affecting railroad operations, avoid regulated environmental resources) and in the minimize need for additional ROW evaluation criteria
	Minimize disruption to neighborhoods and communities		
	Minimize impacts on environmental resources and natural environment	Minimize impacts on natural resources and to cultural resources	
		Maximize avoidance of areas with geological and soils constraints and with potential hazardous materials	

Sources: Authority 2011, 2025a; SCRRA 2014
ADA is the Americans with Disabilities Act, a federal civil rights law passed in 1990 that prohibits discrimination based on disability. First/last mile is the gap on either end of a public transportation trip between the traveler's initial origin and the final destination (source: www.transitwiki.org). TOD includes a mix of commercial, residential, office and entertainment land uses that are centered around or located near a transit station (source: Federal Transit Administration, www.transit.dot.gov/TOD).
ADA = Americans with Disabilities Act; EIR/EIS = Environmental Impact Report/Environmental Impact Statement; HSR = high-speed rail; ROW = right-of-way; TOD = transit-oriented development

Table 2-2 describes the method and sources used to perform a comparative analysis of these evaluation criteria for each Metrolink Commerce Station reconstruction and relocation alternative. The evaluation uses quantitative information where possible to estimate effects and qualitative information when quantification is not applicable or available. The evaluation allows a comparative analysis to be made of each individual evaluation criterion prior to conducting a balanced comparison across all criteria.

Table 2-2 Evaluation Methods and Information Sources for Metrolink Station Alternatives

Evaluation Criteria	Method	Information Sources
A. Transportation and Land Use		
Maximize connectivity and accessibility	Connectivity with the existing and planned roadway network, and accessibility to existing and planned local transit services, bicycle lanes, and pedestrian facilities	Google Earth data and transit website information (www.metrolinktrains.com, https://citycommbus.com) on existing and planned transportation infrastructure and local transit services, SCAG model data on traffic level of service data, Walk Score data (www.walkscore.com)
Increase TOD potential	TOD districts, overlay zones, mixed-use designations, identified areas for economic development/redevelopment, or areas conducive for development within 1/2 mile of the station location	Regional and local planning documents, zoning maps, Google Earth, property data, regional and local general plan maps, input from local jurisdictions
Minimize need for additional right-of-way	Number and size of properties that would be acquired	Aerial photographs, zoning maps, Google Earth, property data, regional and local general plan maps

Evaluation Criteria	Method	Information Sources
B. Community Input		
Community comments & stakeholder agency support	Provided information and received feedback via numerous platforms including email blasts, mailers, information tables/booths, public outreach meetings, and telephone hotline; feedback from community representatives and stakeholder agencies on potential impacts such as increased noise or increased traffic	Input received during engagement with community representatives and stakeholder agencies
C. Ridership and Cost		
Maximize ridership potential	Identify station catchment areas for population and employment (within 3 miles)	SCAG RTP 2012 travel demand model data on population and employment[1]
Minimize construction costs	Estimated impacts on construction costs, based on factors including location and type of track profile (i.e., below grade, elevated, or at grade)	Google Earth and existing terrain, existing railroad infrastructure
Minimize maintenance costs	Estimated impacts on maintenance costs, based on factors including type of track profile and impacts on existing railroads	Google Earth and existing terrain, existing railroad infrastructure, service plans

Source: Authority 2011, 2025a
Note that Category D, Environmental Impacts, is covered in Step 1, Objectives, and in minimize need for additional right-of-way.
Note that as related to the evaluation criteria to increase TOD potential, the *City of Commerce 2020 General Plan*, adopted by the City of Commerce in January 2008, supports the provision of a variety of housing opportunities, the development of a wide range of commercial activities, the creation of a strong employment and commercial base, and the efficient use of alternative forms of transportation that serve the city.
[1] This is the SCAG RTP that was available at the time that the screening analysis was conducted.
RTP = Regional Transportation Plan; SCAG = Southern California Association of Governments; TOD = transit-oriented development

Step 3: Select Top Ranked Alternative: Step 2 results in the identification of the top-ranked alternative. The top ranking results from assessing both the number of evaluation criteria that each alternative met and the relative magnitude of performance within individual criteria across the set of alternatives. The alternative with the highest ranking becomes a component of the Shared Passenger Track Alternatives that will be evaluated in greater detail as part of the project section EIR/EIS.

3 DESCRIPTION OF ALTERNATIVES

The Authority identified station alternatives for the relocated Metrolink Commerce Station by applying the objectives discussed in Chapter 2, Methodology, and depicted on Figure 2-1. On Figure 3-1, the yellow-shaded areas highlight constraints in the area adjacent to the rail corridor, including train yards, rail spurs, and two historic properties. The Step 1 objectives depicted on Figure 2-1 preclude relocating the station to any of these constrained areas, which specifically state that the alternative must:

- Avoid negatively affecting the operations of existing railroads including the mainline tracks, yards, and spurs.
- Avoid negatively affecting regulated environmental resources including historical sites/ properties.

Based on this information, the Authority and FRA identified five potential Metrolink Commerce Station relocation sites for further evaluation. Figure 3-1 depicts the potential sites.

1. **Eastern Avenue:** This alternative is west of Eastern Avenue in Commerce, adjacent to the rail corridor. The platform would be elevated in Commerce, on an approach to the viaduct section. The station and parking facilities would be at grade to the north of the tracks. The Authority considered a station south of the tracks, but selected the north side because the right-of-way impacts would be significantly smaller.
2. **Sheila Street/Fidelia Avenue:** This alternative is south of the intersection of Sheila Street and Fidelia Avenue in Commerce, adjacent to the rail corridor. The platform would be on a viaduct because the rail tracks would be on the viaduct. The station and parking facilities would be at grade to the north of the tracks because of nearby constraints with the train yard to the south and rail spurs to the east.
3. **Reconstruct Existing Station:** This alternative would keep the station at its current location and elevate the existing platform. The platform would be on the viaduct, because the rail tracks would be on the viaduct. The existing parking facilities would remain at grade to the south of the tracks and would require modifications. Constraints near the station include the train yard to the north and west of the existing site.
4. **Garfield Avenue:** This alternative is east of Garfield Avenue in Commerce, adjacent to the rail corridor. The platform would be at grade, because the rail tracks would be at grade at this location. The station and parking facilities would be at grade to the south of the tracks because of a constraint of rail spurs to the north.
5. **Maple Avenue:** This alternative is on Maple Avenue north of Telegraph Road, adjacent to the rail corridor in Commerce. The platform would be at grade, because the rail tracks would be at grade at this location. The station and parking facilities would be at grade to the south of the tracks in Montebello because of a constraint of rail spurs to the north.

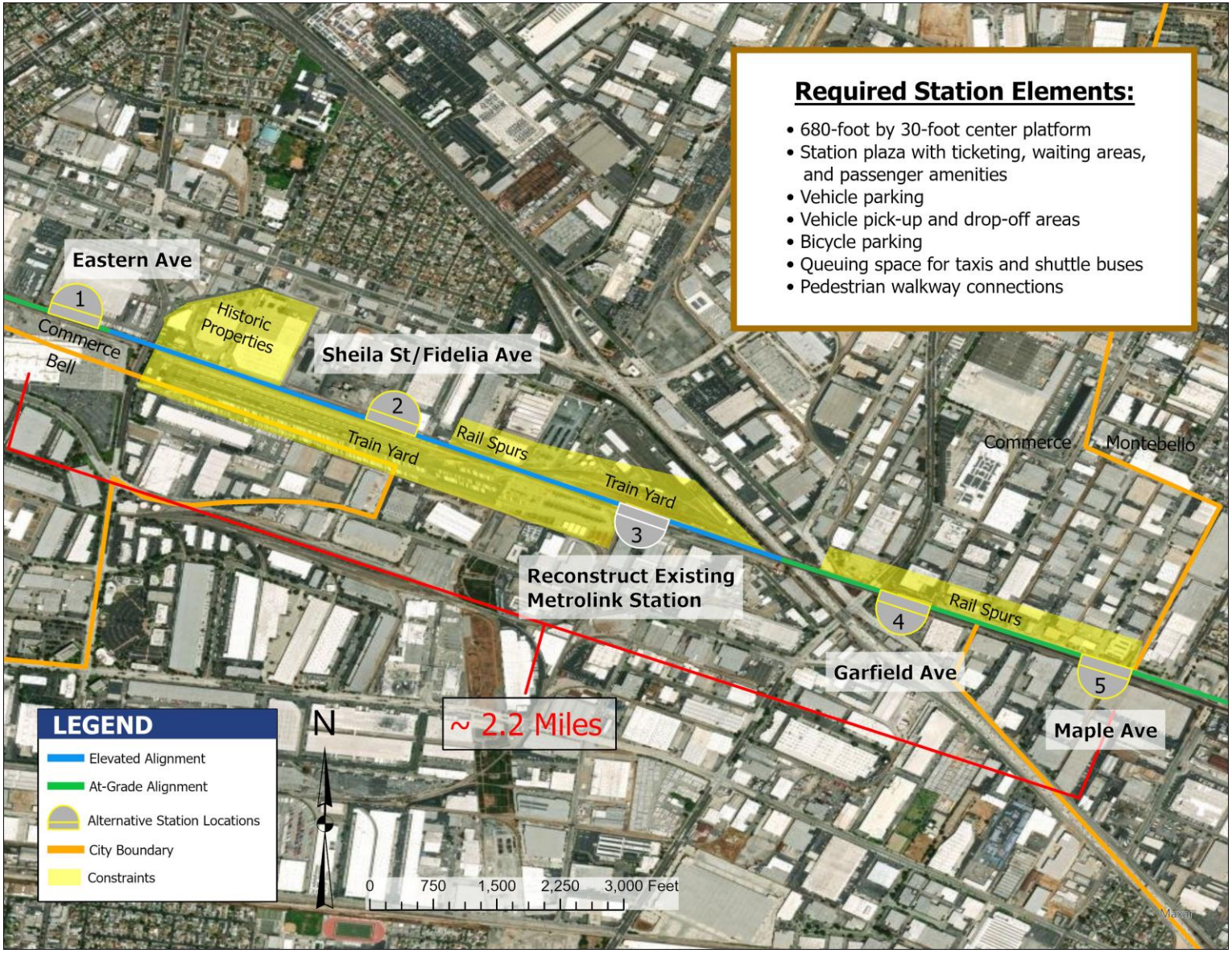


Figure 3-1 Station Location Options

All station alternatives would include the following elements:

- 680-foot by 30-foot center platform for passenger boarding and alighting
- Station plaza with ticketing, waiting areas, and passenger amenities
- Vehicle parking
- Vehicle pick-up and drop-off areas
- Bicycle parking
- Waiting areas and queuing space for taxis and shuttle buses
- Pedestrian walkway connections

For each of the alternatives, the Authority assumed a single center platform configuration between the two passenger rail tracks. This is preferable to a configuration with two side platforms, which would take up more width within the rail corridor and would locate one of the side platforms between a passenger rail track on one side and a freight rail track on the other.

The two passenger rail tracks would be south of the two freight rail tracks within the rail corridor for each of the alternatives. Because the transit plaza and parking facilities would be north of the rail corridor for two of the alternatives—Alternative 1, Eastern Avenue, and Alternative 2, Sheila Street/Fidelia Avenue—these alternatives would require a pedestrian overpass or underpass to connect the platforms with the station (i.e., provide a pedestrian grade separation with the two freight rail tracks). The other alternatives would require less extensive pedestrian infrastructure.

Because each of these five alternatives adhere to the objectives depicted on Figure 2-1, the Authority advanced them to Step 2 for further consideration.

The Southern California Association of Governments' 2016–2040 Regional Transportation Plan does not specifically identify relocation of the Metrolink Commerce Station on its Project List (SCAG 2016). In terms of local policy, the City of Commerce's Capital Improvement Program last approved in July 2024 does not identify any future Metrolink Commerce Station improvements (City of Commerce 2024).

For all station alternatives, existing land uses and zoning are similar. Land uses for each station alternative are industrial as identified in the City of Commerce's 2020 General Plan (City of Commerce, 2008). There are potential TOD opportunities north of the rail alignment; the plan identifies a combination of commercial manufacturing and housing opportunities.

Zoning for all station alternatives is identified as Heavy Industrial (M2) (City of Commerce 2008). The municipal code identifies various Standard Industrial Classifications to determine uses. As related to this project, Standard Industrial Classification code 40: Railroad Transportation was identified in which establishments are furnishing transportation by line-haul railroad, switching, and terminals. Based on this information, the Metrolink Commerce Station alternatives are consistent with City of Commerce land uses and zoning.

Based on preliminary hazardous materials findings, no active hazardous materials and wastes were identified for any of the station site alternatives. Research was conducted via various databases including Environmental Data Resources, GeoTracker, and EnviroStor that identified a series of selected hazardous waste properties and Environmental Data Resources identified sites within the corridor (Authority 2025b). There were no identified hazardous waste sites that overlapped with any of the station options. Information found was for surrounding or adjacent hazardous waste sites for which there was no information for contaminants of concern, groundwater, or status of case. One identified site at 6000 E Sheila Street overlaps with the Sheila Street/Fidelia Avenue station alternative parcel, which is about 150 feet north of the project footprint. The findings at this site detail the category as Recovered Government Archives Leaking Underground Storage Tank. The Environmental Data Resources database provides a list of leaking underground storage tank incidents derived from historical databases and includes many records that no longer appear in current government lists. The database is compiled from records formerly available from the State Water Resources Control Board.

4 ALTERNATIVES EVALUATION

4.1 Eastern Avenue

Figure 4-1 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location, and the red line delineates the approximate extent of the required right-of-way.

Figure 4-1 Alternative 1: Eastern Avenue

4.1.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Auto access for this alternative would be from Eastern Avenue, which runs north-south about 0.1 mile from the station. Eastern Avenue is a major arterial that connects with other major arterials, including Atlantic Boulevard, Washington Boulevard, Bandini Boulevard, and Slauson Avenue. Eastern Avenue in the station vicinity has a year 2015 LOS of B (reasonably free flow) during both the a.m. and p.m. peak periods. The site is about 0.9 mile from the nearest I-5 exit (Atlantic Boulevard).

This alternative would improve driving times to/from this location for residents of Commerce, Maywood, and Bell relative to the existing Metrolink Commerce Station because of this alternative's closer proximity to residential areas of those cities. Driving times would be longer for residents of Montebello and Pico Rivera. Driving times would be similar for residents of Bell Gardens and Downey.

The alternative would require rerouting a bus route that serves the current station: the Commerce Orange Route (the overall route length would not appreciably change). The Los Angeles County Metropolitan Transportation Authority (Metro) Line 258, the Commerce Green Route, and the Commerce Yellow Route, which all run on Eastern Avenue, could also readily serve this station. This alternative would enhance overall transit connectivity relative to the existing station location. Buses would access a designated transit plaza and bus bays using Eastern Avenue.

Bicyclists and pedestrians would access the station using Eastern Avenue. There are no existing or planned bicycle facilities adjacent to this station alternative. Eastern Avenue has pedestrian sidewalks. This station alternative has a Walk Score of 63, or somewhat walkable, the highest among the five alternatives (Walk Score 2025b).

Increase TOD Potential: TOD could occur on the remaining portion of the acquired parcel not needed for the station. Surrounding land uses are predominantly industrial in nature, with some mixed-use developments about 0.25 mile north of this station alternative along Washington Boulevard. The Authority expects TOD potential to be modest.

Minimize Need for Additional Right-of-Way: This alternative would affect one existing parcel in Commerce that is 1,035,482 square feet in size. A Smart & Final Distribution Center occupies the parcel. An area of about 175,000 square feet would be required for the transit plaza, parking facilities, and connecting roadways (excluding the platform). The red border on Figure 4-1 is solely the current parcel boundaries; the Authority will make more precise right-of-way determinations for the selected station site.

4.1.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature and not specific to the Eastern Avenue alternative.

4.1.3 Ridership and Cost

Maximize Ridership Potential: Population and employment within 3 miles of the station alternative are used as a proxy for ridership potential. The estimated population residing within 3 miles of this station alternative is 228,682 (U.S. Census Bureau 2022). The estimated employment within 3 miles of this station alternative is 178,315 (U.S. Census Bureau 2022).

Minimize Construction Costs: This location avoids existing railroad control points (i.e., signals and switches). Based on planned infrastructure for the proposed alignment of the project section, the platform would be elevated on an approach to connect with the aerial viaduct. To avoid placing the platform on sloped tracks and provide the required tangent length of 680 feet for the station platform, it would be necessary to extend the approach section farther west—an extension that would result in additional capital costs. The platform would be elevated, and the track realignment costs would be more significant than for other alternatives.

Additional pedestrian infrastructure would be necessary to enable passengers to cross over or under the freight rail tracks. Roadway reconstruction costs would be relatively high if pedestrian access was provided directly from Eastern Avenue. In addition, this alternative would require further widening the existing Eastern Avenue grade separation to accommodate the station platform, which would be just west of Eastern Avenue. The proposed alignment for the project section calls for widening this grade separation 36 feet to add rail tracks, which would not be sufficient to accommodate the approach to the platform.

Minimize Maintenance Costs: This alternative would have higher maintenance costs than other alternatives because of station infrastructure needs. The platform would be elevated, which would require additional infrastructure for vertical circulation (i.e., elevators, escalators, and stairs). The transit plaza, access roadways, and parking facilities would be at grade.

4.2 Sheila Street/Fidelia Avenue

Figure 4-2 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location, and the red line delineates the approximate extent of the required right-of-way.

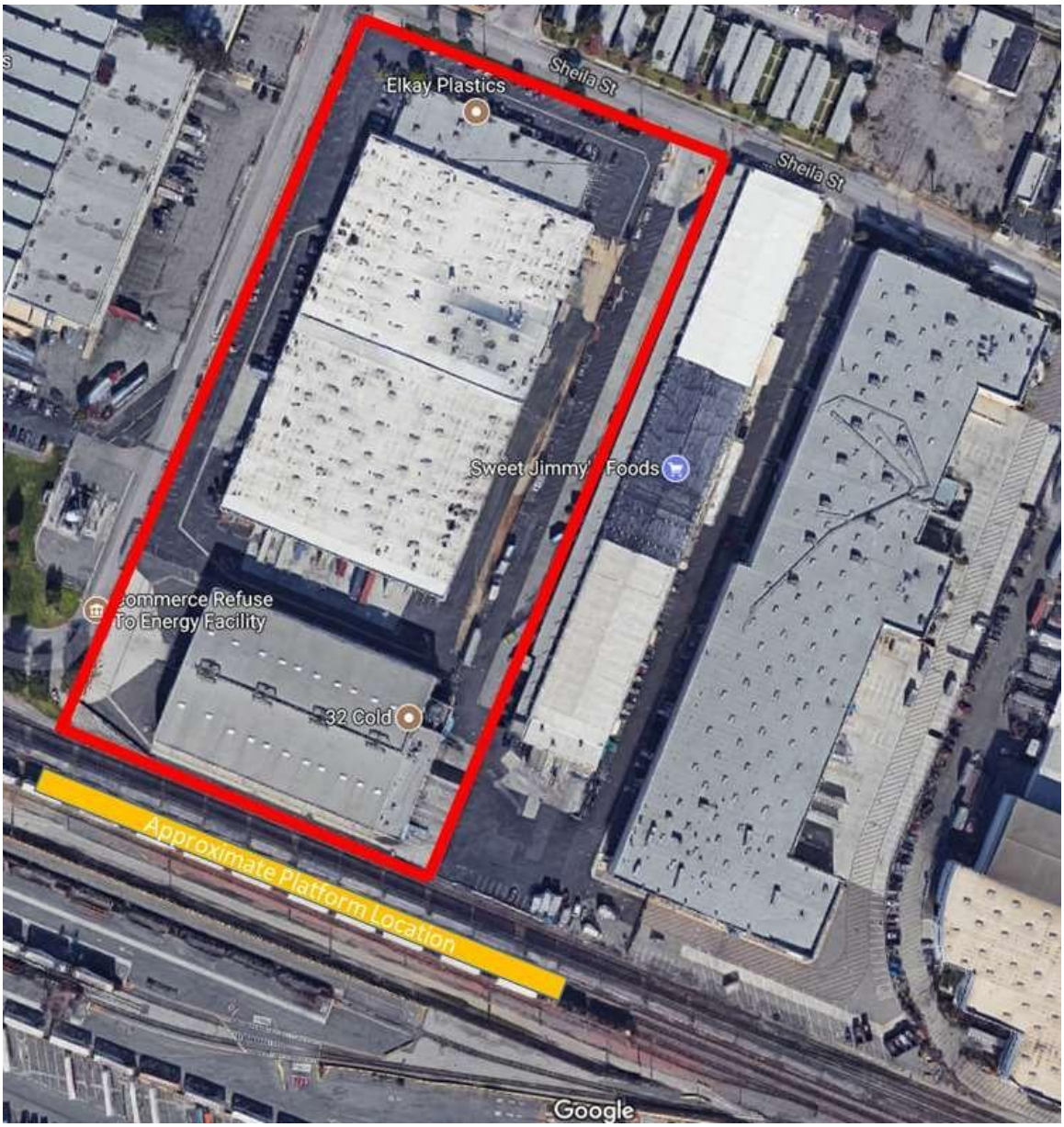


Figure 4-2 Alternative 2: Sheila Street/Fidelia Avenue

4.2.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Auto access for this alternative would be from the north using Sheila Street, a minor road. The closest major arterial is Washington Boulevard, which runs east-west about 0.3 mile north of the station. LOS data for Washington Boulevard in the station vicinity are not available. The closest major arterial for which LOS data are available is Telegraph Road, which has a year 2015 LOS of A (free flow) during both the a.m. and p.m. peak periods. The site is about 0.7 mile from the nearest I-5 exit (Washington Boulevard).

This location would improve drive times to/from the station for residents of Commerce, relative to the existing Metrolink Commerce Station. Driving times would be longer for residents of Bell Gardens and Downey. Driving times would be similar for residents of Bell, Maywood, Montebello, and Pico Rivera.

This alternative would require rerouting two bus routes that serve the current station: the Commerce Orange Route (the overall route length would decrease by about 0.2 mile). Overall transit connectivity would be similar to that of the existing station location. Buses would access a designated transit plaza and bus bays using Sheila Street.

Bicyclists and pedestrians would access the station using Sheila Street. There are no existing or planned bicycle facilities adjacent to this station alternative. The section of Sheila Street leading to/from the station location does not have pedestrian sidewalks. This station alternative has a Walk Score of 20, or car dependent, placing the lowest among the five alternatives in terms of walkability (Walk Score 2025c).

Increase TOD Potential: Transit-oriented development could occupy the remaining portion of the acquired parcels not necessary for the station. Surrounding land uses are predominantly industrial in nature, with some residential development to the north of this station alternative along Sheila Street. The Authority expects TOD potential to be modest.

Minimize Need for Additional Right-of-Way: This alternative would affect two existing parcels:

- The first parcel is 128,422 square feet in size. A warehouse and cold-storage facility occupy the parcel.
- The second parcel is 307,216 square feet in size. A seafood wholesaler and grocery store occupy the parcel.

The total property that would be acquired for this location is estimated at 435,638 square feet. The red border on Figure 4-2 is solely the current parcel boundaries; the Authority will make more precise right-of-way determinations for the selected station site.

4.2.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature and not specific to the Sheila Street/Fidelia Avenue alternative.

4.2.3 Ridership and Cost

Maximize Ridership Potential: The estimated population residing within 3 miles of this station alternative is 226,960 (U.S. Census Bureau 2022). The estimated employment within 3 miles of this station alternative is 177,688 (U.S. Census Bureau 2022).

Minimize Construction Costs: This alternative would impose significant drawbacks from a capital-cost perspective. The longitudinal grade of the station would need to be level for the entire length of the platform limits before the viaduct descends back down to the existing grade. There is not enough horizontal distance between the potential elevated station and the existing I-5 grade separation for the passenger rail tracks to get down to the grade of the existing structure at I-5. This would require construction of new aerial structures over I-5, Telegraph Road, and Garfield Avenue because the viaduct for this alternative could not get down to the grade necessary to use the existing structures over those roadways. A new aerial structure over I-5 would require additional easements. Additional pedestrian infrastructure would also be necessary for passengers to cross over or under the freight rail tracks.

Minimize Maintenance Costs: This alternative would have higher maintenance costs than other alternatives because of station infrastructure needs. The platform would be elevated, which would require additional infrastructure for vertical circulation (i.e., elevators, escalators, and stairs). The transit plaza, access roadways, and parking facilities would be at grade.

4.3 Reconstruct Existing Station

Figure 1-2 provides a depiction of land use conditions at the existing Metrolink Commerce Station.

4.3.1 Transportation and Land Use

Maximize Connectivity and Accessibility: The existing station is on 26th Street, a minor roadway that connects with Garfield Avenue, which is a major arterial about 0.4 mile to the east. Garfield Avenue has a year 2015 LOS of F (breakdown flow) during the a.m. peak and E (unstable flow) during the p.m. peak. The site is about 0.8 mile from the nearest I-5 exit (Garfield Avenue).

The Commerce Orange Route and the Commerce 26th Street Shuttle serve the existing station. This alternative would not change those existing routes. Buses, bicyclists, and pedestrians would continue to access the station from 26th Street.

There would be no change in auto, transit, bicycle, or pedestrian access relative to the existing station because the station location would remain the same. All station access would be via 26th Street, which connects with Garfield Avenue.

There are no existing bicycle facilities adjacent to this station alternative; Metro plans for on-street bicycle lanes on Garfield Avenue (Metro 2023). 26th Street does not have pedestrian sidewalks leading to/from Garfield Avenue. This station alternative has a Walk Score of 22, or highly car dependent, the second lowest among the five alternatives (Walk Score 2025c).

Increase TOD Potential: Surrounding land uses are predominantly industrial. TOD potential would not change relative to the existing station and would not be significant.

Minimize Need for Additional Right-of-Way: The reconstruction of this station would partially disrupt existing parking and would require additional right-of-way for temporary replacement parking. The City of Commerce owns vacant right-of-way adjacent to the existing Commerce Station parking lot that could accommodate the replacement parking. A new aerial structure over I-5, which would be necessary for this alternative would require additional easements.

4.3.2 Community Input

Community Comments and Stakeholder Agency Support*:* Community input received was general in nature and not specific to the Metrolink station reconstruction alternative.

4.3.3 Ridership and Cost

Maximize Ridership Potential: The estimated population residing within 3 miles of this station alternative is 201,734 (U.S. Census Bureau 2022). The estimated employment within 3 miles of this station alternative is 159,262 (U.S. Census Bureau 2022).

Minimize Construction Costs: Building a new elevated Metrolink station on the proposed viaduct would impose significant drawbacks from a capital-cost perspective. The longitudinal grade of the station would need to be level for the entire length of the platform limits before the viaduct descends back down to the existing grade. There is not enough horizontal distance between the potential elevated station and the existing I-5 grade separation for the passenger rail tracks to get down to the grade of the existing structure at I-5. This would require the construction of new aerial structures over I-5, Telegraph Road, and Garfield Avenue because the viaduct for this alternative could not get down to the grade necessary to use the existing structures over those roadways. A new aerial structure over I-5 would require additional easements.

The placement of an elevated station would temporarily disrupt the existing parking lot. It would be possible to build a temporary parking lot to the east of the existing lot on right-of-way owned by the City of Commerce while construction of the elevated station is ongoing.

Minimize Maintenance Costs: This alternative would have higher maintenance costs than other alternatives because of station infrastructure needs. The platform would be elevated, which would

require additional infrastructure for vertical circulation (i.e., elevators, escalators, and stairs). The transit plaza, access roadways, and parking facilities would be at grade.

4.4 Garfield Avenue

Figure 4-3 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location, and the red line delineates the approximate extent of the required right-of-way.

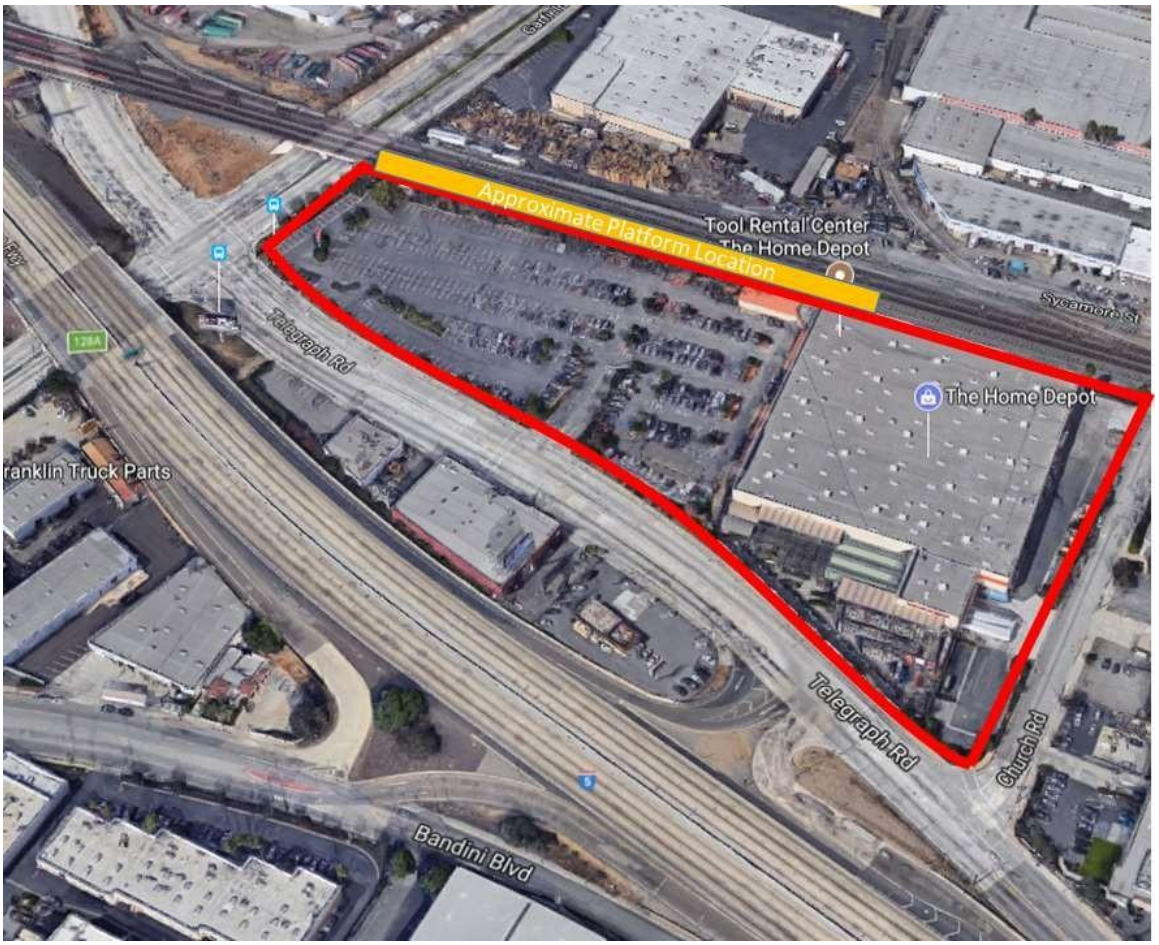


Figure 4-3 Alternative 4: Garfield Avenue

4.4.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Auto access would be provided from the south using Telegraph Road, a major arterial that runs from the northwest to the southeast about 0.1 mile from the station. Telegraph Road has a year 2015 LOS of A (free flow) during both the a.m. and p.m. peak periods. The site is about 0.2 mile from the nearest I-5 exit (Garfield Avenue). This location would improve drive times to/from the station relative to the existing Metrolink Commerce Station because of its closer proximity to Garfield Avenue (0.2 mile, compared to 0.4 mile for the existing station).

This alternative would require rerouting two bus routes that serve the current station: the Commerce Orange (700) Route (the overall route length would decrease by about 0.4 mile) and the Commerce 26th Street Shuttle (the overall route length would decrease by about 0.4 mile). The Commerce Green Route (100), and the City of Montebello Line 30, both which run on Garfield Avenue, could also readily serve this station; Metro Line 62, which runs on Telegraph

Road, could also serve the station. This location would enhance overall transit connectivity relative to the existing station. Buses would access a designated transit plaza and bus bays using Garfield Avenue and Telegraph Road.

Bicyclists and pedestrians would access the station using Garfield Avenue and Telegraph Road. There are no existing bicycle facilities adjacent to this station alternative; Metro plans on-street bicycle lanes on Garfield Avenue and Telegraph Road (Metro 2023). Garfield Avenue and Telegraph Road have pedestrian sidewalks. This station alternative has a Walk Score of 26, or car dependent, third among the five alternatives (Walk Score 2025d).

Increase TOD Potential: The project could use the remaining portion of the acquired parcels not needed by the station for TOD. The existing land use at the station site is commercial. The Authority expects TOD potential to be modest.

Minimize Need for Additional Right-of-Way: This alternative would affect three existing parcels totaling 364,451 square feet. A Home Depot occupies these parcels. The Authority identified two options with respect to parcel acquisition:

- The first option would involve full acquisition of the parcels. The red border on Figure 4-3 is solely the current parcel boundaries; the Authority will make more precise right-of-way determinations for the selected station site.
- The second option would involve partial acquisition of the parcels for the transit plaza (about 25,000 square feet). The City of Commerce would then need to negotiate a shared-parking agreement with Home Depot in which new parking spaces for Metrolink patrons would need to be added to the remaining portion of the parcels owned by Home Depot. This addition would likely require construction of an elevated or underground parking structure. Metrolink riders and Home Depot customers would share driveway access.

4.4.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature and not specific to the Garfield Avenue alternative.

4.4.3 Ridership and Cost

Maximize Ridership Potential: The estimated population residing within 3 miles of this station alternative is 193,723 (U.S. Census Bureau 2022). The estimated employment within 3 miles of this station alternative is 153,416 (U.S. Census Bureau 2022).

Minimize Construction Costs: This location provides the required tangent length for the station platform, requires minimal track realignment, and avoids existing railroad control points. The station platform would be at grade. There would be additional costs to build an elevated or underground parking structure with the partial acquisition approach.

The existing grade separations at Garfield Avenue and Telegraph Road would need widening to accommodate the station platform just east of Garfield Avenue. This would increase capital costs. The proposed alignment for the project section calls for using these existing grade separations without widening, which would not be sufficient to accommodate the approach to the platform (because of the 30-foot width requirement of the platform).

Minimize Maintenance Costs: This alternative minimizes maintenance costs because the platform, transit plaza, access roadways, and parking facilities would be at grade. Elevated or underground facilities would have higher maintenance costs because of the need to maintain infrastructure for vertical circulation (i.e., elevators, escalators, and stairs).

4.5 Maple Avenue

Figure 4-4 depicts existing land use conditions for this station alternative. The orange rectangle depicts the approximate platform location, and the red line delineates the approximate extent of the required right-of-way.

Figure 4-4 Alternative 5: Maple Avenue

4.5.1 Transportation and Land Use

Maximize Connectivity and Accessibility: Maple Avenue, a minor road that connects with Telegraph Road about 0.2 mile south of the station, would provide auto access from the south. Telegraph Road is a major arterial that runs from the northwest to the southeast. LOS data for Telegraph Road in the station vicinity are not available. The closest major arterial for which LOS data are available is Greenwood Avenue, which has a year 2015 LOS of A (free flow) during the a.m. peak and LOS of C (stable flow) during the p.m. peak. The site is about 0.5 mile from the nearest I-5 exit (Garfield Avenue).

Driving times to/from this location would improve for residents of Montebello, Pico Rivera, Downey, and the eastern part of Commerce relative to the existing Metrolink Commerce Station. Driving times would be similar for residents of the western part of Commerce, Bell, Maywood, and Bell Gardens.

This alternative would require rerouting two bus routes that serve the current station: the Commerce Orange (700) Route (the overall route length would increase by about 0.4 mile) and the Commerce 26th Street Shuttle (the overall route length would increase by about 0.4 mile). Metro Line 62, which runs on Telegraph Road, and Line 20 of Montebello Bus Lines, which runs

on Greenwood Avenue, could serve this station. This alternative would enhance overall transit connectivity relative to the existing station.

Buses would access a designated transit plaza and bus bays using Telegraph Road and Maple Avenue.

Bicyclists and pedestrians would access the station using Telegraph Road and Maple Avenue. There are no existing bicycle facilities adjacent to this station alternative; Metro plans to add bicycle lanes on Telegraph Road (Metro 2023). Maple Avenue does not have pedestrian sidewalks leading to/from Telegraph Road. This station alternative has a Walk Score of 34, or car dependent, second among the five alternatives (Walk Score 2025e).

Increase TOD Potential: TOD could occur on the remaining portion of the parcel not necessary for the station. Surrounding land uses are predominantly industrial in nature, with some residential land use about 0.25 mile northeast of this station alternative in Montebello. The Authority expects TOD potential to be modest.

Minimize Need for Additional Right-of-Way: This alternative would affect one existing parcel 248,195 square feet in size at 1550 S Maple Avenue in Montebello. An electronic manufacturer occupies the parcel. The red border on Figure 4-4 is solely the current parcel boundaries; the Authority will make more precise right-of-way determinations for the selected station site.

The Authority has already planned for a partial acquisition of this property to accommodate a paralleling station, independent of the station relocation. Paralleling stations are used to connect the overhead catenary wires with electrical transformers to control voltage. This partial acquisition would involve about 17,000 square feet.

4.5.2 Community Input

Community Comments and Stakeholder Agency Support: Community input received was general in nature and not specific to the Maple Avenue alternative.

4.5.3 Ridership and Cost

Maximize Ridership Potential: The estimated population residing within 3 miles of this station alternative is 181,811 (U.S. Census Bureau 2022). The estimated employment within 3 miles of this station is 144,319 (U.S. Census Bureau 2022).

Minimize Construction Costs: This location provides the required tangent length for the station platform, requires minimal track realignment, and avoids existing railroad control points. The station platform would be at grade.

Minimize Maintenance Costs: This alternative minimizes maintenance costs because the platform, transit plaza, access roadways, and parking facilities would be at grade. Elevated or underground facilities would have higher maintenance costs because of the need to maintain infrastructure for vertical circulation (i.e., elevators, escalators, and stairs).

The site would be largely within Commerce city limits. While the station platform would be within Commerce, the transit plaza and parking would be in Montebello, likely requiring joint ownership and a joint maintenance agreement by the cities.

5 RECOMMENDATION

Table 5-1 provides a summary of the alternatives evaluation for each criterion specified in Table 2-2. The findings from the evaluation, as described in Chapter 4, Alternatives Evaluation, allow a comparative analysis to be made of each individual evaluation criterion prior to conducting a balanced comparison across all criteria.

Table 5-1 Comparison of Alternatives

Evaluation Criterion	1. Eastern Avenue	2. Sheila Street / Fidelia Avenue	3. Reconstruct Existing Station	4. Garfield Avenue	5. Maple Avenue
Transportation and Land Use					
Maximize connectivity and accessibility	3	2	2	3	3
Increase transit-oriented development potential	2	2	1	2	2
Minimize need for additional right-of-way	1	2	3	2	2
Community Input					
Community comments and stakeholder agency support	1	1	1	1	3
Ridership and Cost					
Maximize ridership potential	3	3	2	2	3
Minimize construction costs	2	1	1	2	3
Minimize maintenance costs	2	2	2	3	3

3 = effectively meets this criterion. 2 = partially meets this criterion. 1= does not meet this criterion.

Figure 5-1 provides a list of the performance metrics that were reviewed during development of the evaluation criterion ratings provided in Table 5-1.

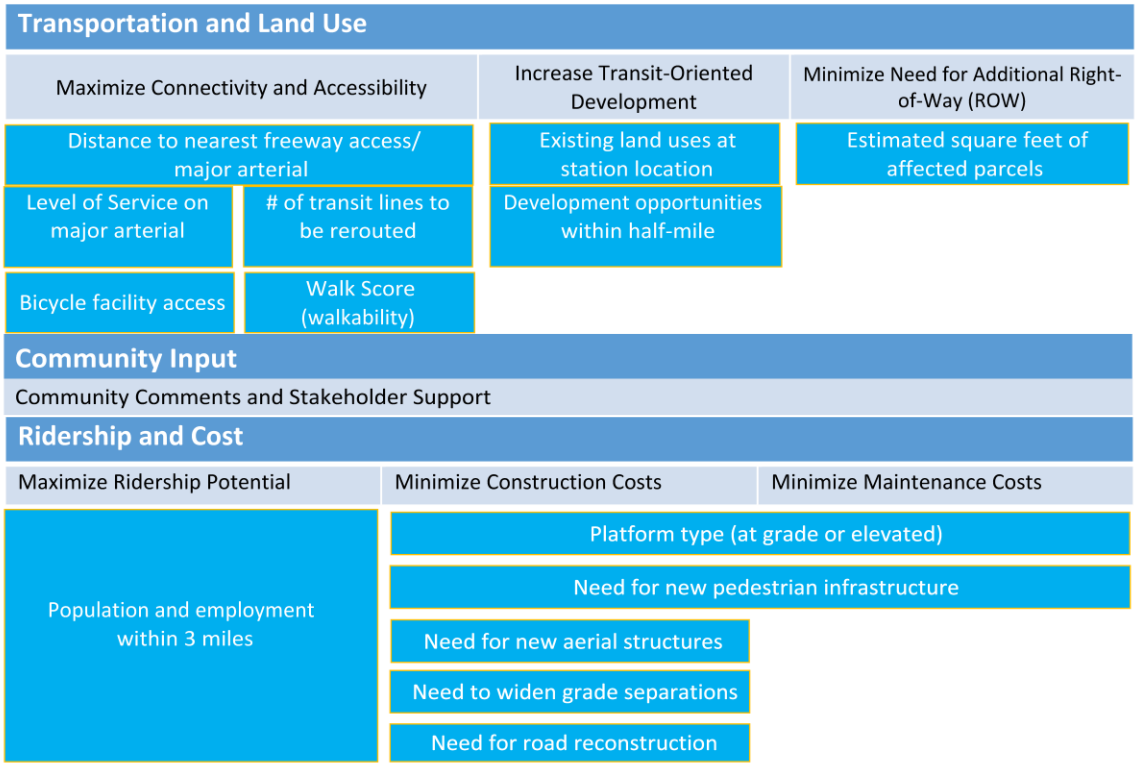


Figure 5-1 Evaluation Criterion Performance Metrics

Table 5-2 provides the performance metrics for each of the five alternatives.

Table 5-2 Summary of Performance Metrics by Alternative

Performance Indicator	1. Eastern Avenue	2. Sheila Street/Fidelia Avenue	3. Reconstruct Existing Station	4. Garfield Avenue	5. Maple Avenue
1. Transportation and Land Use					
Maximize Connectivity and Accessibility					
Distance to nearest freeway access	0.9 mile (I-5 via Atlantic Blvd)	0.7 mile (I-5 via Washington Blvd)	0.8 mile (I-5 via Garfield Ave)	0.2 mile (I-5 via Garfield Ave)	0.5 mile (I-5 via Garfield Ave)
Distance to nearest major arterial	0.1 mile (Eastern Ave)	0.3 mile (Washington Blvd)	0.4 mile (Garfield Ave)	0.1 mile (Telegraph Rd)	0.2 mile (Telegraph Rd)
LOS on major arterial (AM peak/PM peak)	B/B (Eastern Ave)	A/A (Telegraph Rd)	F/E (Garfield Ave)	A/A (Telegraph Rd)	A/C (Greenwood Ave)
Number of transit lines that would be rerouted/have increased route length	2/0	2/1	0/0	2/0	2/2
Bicycle facility access?	No	No	No, but planned on Garfield Ave	No, but planned on Telegraph Rd and Garfield Ave	No, but planned on Telegraph Rd
Walk score (0 low; 100 high)	63	20	22	26	34
Increase Transit-Oriented Development					
Existing land uses at station location	Industrial	Industrial	Industrial	Commercial/Industrial	Industrial
Development opportunities within a half-mile?	Modest	Modest	No	Modest	Modest
Minimize Need for Additional Right-of-Way					
Estimated square feet of affected parcels	1,035,482	435,638	-	364,451	248,195
2. Ridership and Cost					
Maximize Ridership Potential					
Population within 3 miles	228,682	226,960	201,734	193,723	181,811

Performance Indicator	1. Eastern Avenue	2. Sheila Street/Fidelia Avenue	3. Reconstruct Existing Station	4. Garfield Avenue	5. Maple Avenue
Employment within 3 miles	178,315	177,688	158,262	153,416	144,319
Minimize Construction Costs					
Need for new aerial structures?	No	Yes (over I-5, Telegraph Rd, and Garfield Ave)	Yes (over I-5, Telegraph Rd, and Garfield Ave)	No	No
Need to widen existing grade separations?	Yes (Eastern Ave)	No	No	Yes (Telegraph Rd & Garfield Ave)	No
Need for road reconstruction?	High	Medium	Low	Medium	Medium
Minimize Construction Costs and Maintenance Costs					
Platform type	Elevated	Elevated	Elevated	At grade	At grade
Need for new pedestrian infrastructure?	High, for vertical circulation and to cross freight rail tracks	High, for vertical circulation	High, for vertical circulation	Medium	Medium

I = Interstate; LOS = level of service

Of the five station location alternatives evaluated, the Authority recommends advancing Alternative 5: Maple Avenue as the top-ranked alternative that will be evaluated in greater detail as a component of Shared Passenger Track Alternative A and Shared Passenger Track Alternative B as part of the project section EIR/EIS. The Authority bases this recommendation on the following considerations:

- **Maximize Connectivity and Accessibility:** This alternative would have good access to major arterials and I-5 and would improve overall transit connectivity relative to the existing station.
- **Increase TOD Potential:** This alternative would have higher TOD potential than the existing station because the alternative has greater proximity to existing residential land uses.
- **Minimize Need for Additional Right-of-Way:** This alternative has smaller square footage of affected parcels than other alternatives that involve station relocation.
- **Community Comments and Stakeholder Support:** This alternative would result in fewer impacts on Metrolink Service as opposed to the other station alternatives.
- **Maximize Ridership Potential:** This alternative would have higher population and employment within a 3-mile catchment area than the existing station.
- **Minimize Construction Costs:** The station platform for this alternative would be at grade. No new aerial structures or modifications to existing grade separations would be required. Roadway reconstruction costs would be lower than, or similar to, other relocation alternatives.
- **Minimize Maintenance Costs:** This alternative would minimize maintenance costs by having the station platform at grade. Elevated or underground facilities associated with other alternatives would have higher maintenance costs because of the need to maintain infrastructure for vertical circulation (i.e., elevators, escalators, and stairs).

The existing Metrolink Commerce Station could remain open during construction of the new station, so riders would experience minimal service disruption.

6 REFERENCES

California Department of Transportation (Caltrans). 2012. *Alternatives Analysis – Frequently Asked Questions.* October. www.dot.ca.gov/ser/downloads/guidance/alternative_analyfaq.pdf.

California High-Speed Rail Authority (Authority). 2005. HSR Program EIR/EIS Criteria: Final Program EIR/EIS for the Proposed California High-Speed Train System, Chapter 6A. August.

———. 2011. Technical Memorandum: Alternatives Analysis Methods for Project EIR/EIS. Version 3. December 2010. www.hsr.ca.gov/docs/programs/eir_memos/Proj_Guidelines_RevisAA_MethodsVer3.pdf (accessed July 2018).

———. 2023. *California High-Speed Train Project Anaheim to Los Angeles Section Supplemental Alternatives Analysis Report.* November. https://hsr.ca.gov/wp-content/uploads/2023/11/231025-LA-A-SAA-Final-Version11-clean-A11Y.pdf.

———. 2025a. *Los Angeles to Anaheim Project Section Transportation Technical Report*.

———. 2025b. L*os Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report*.

California High-Speed Rail Authority (Authority) and Federal Railroad Administration (FRA). 2005. *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System*. Sacramento and Washington, DC: California High-Speed Rail Authority and Federal Railroad Administration. August. https://hsr.ca.gov/programs/environmental-planning/program-eir-eis-documents-for-the-statewide-high-speed-rail-system-tier-1/final-program-environmental-impact-report-environmental-impact-statement-eir-eis-for-the-proposed-california-high-speed-train-system-2005/.

———. 2016. Los Angeles to Anaheim Project Section Supplemental Alternatives Analysis Report. April 2016. www.cahighspeedrail.ca.gov/docs/brdmeetings/2016/brdmtg_041216_Item9_ATTACHMENT_LA_to_Anaheim_Supplemental_Alternatives_Analysis.pdf (accessed December 2016).

City of Commerce. 2008. *City of Commerce 2020 General Plan*. Commerce, CA: Adopted January 2008. www.ci.commerce.ca.us/index.aspx?NID=328.

———. 2023. Microtransit for the Commerce Metrolink Station. https://www.ci.commerce.ca.us/city-hall/transportation/via-mobility-app.

———. 2024. City of Commerce Council approves Captial Improvement Budget for Fiscal Year 2024-2025. https://www.commerceca.gov/Home/Components/News/News/1113/.

Los Angeles County Metropolitan Transportation Authority (Metro). 2023a. 2023 Active Transportation Strategic Plan. https://www.dropbox.com/sh/md1lj8rjkqy62s5/AAA6a0_IAFBki1C2jAjqDChWa/2023%20Active%20Transportation%20Strategic%20Plan%20(ATSP)?e=2&preview=2023-Active-Transportation-Strategic-Plan.pdf&subfolder_nav_tracking=1&dl=0.

———. 2023b. *2023 Active Transportation Strategic Plan Appendix.* https://www.dropbox.com/scl/fo/64cw0i8ga17ii2torjbyb/AGiwJ1b7ucFmYpLNHPWweQ4/2023%20Active%20Transportation%20Strategic%20Plan%20(ATSP)?dl=0&e=1&preview=2023-Active-Transportation-Strategic-Plan-Appendices.pdf&rlkey=41nupkv8lzfpuombzu0zy0zkn&subfolder_nav_tracking=1.

Southern California Agency of Governments (SCAG). 2016a. 2016–2040 Regional Transportation Plan/Sustainable Committees Strategies. April.

———. 2016b. Project List. https://scag.ca.gov/sites/default/files/2024-05/f2016rtpscs_projectlist.pdf.

Southern California Regional Rail Authority (SCRRA). 2014. SCRRA Design Criteria Manual. November.

———. 2017. Metrolink Criteria: Presentation on Station Location Feasibility Study: San Gabriel Valley. May.

———. 2023a. Metrolink Fact Sheet, FY2022-23, Q4 (Apr. 1 – Jun. 30, 2023).

———. 2023b. Metrolink Timetable, October 23, 2023. All times listed are Pacific Standard Time (PST).

U.S. Census Bureau. 2022. ACS Total Population. American Community Survey, ACS 5-Year Estimates Data Profiles, Table B1003.

Walk Score. 2025a. 6433 East 26th Street. August. https://www.walkscore.com/score/6433-e-26th-st-commerce-ca-90040.

———. 2025b. 5500 Sheila Street. August. https://www.walkscore.com/score/5500-sheila-st-commerce-ca-90040.

———. 2025c. 6000 Sheila Street. August. http://walkscore.com/score/6000-sheila-st-commerce-ca-90040.

———. 2025d. 7015 Telegraph Rd. August. https://www.walkscore.com/score/7015-telegraph-rd-commerce-ca-90040.

———. 2025e. 1550 South Maple Ave. August. https://www.walkscore.com/score/1500-s-maple-ave-montebello-ca-90640.