Los Angeles County
Metropolitan Transportation Authority

West Santa Ana Branch Transit Corridor

Final EIS/EIR Appendix C: System Components and Ancillary Facilities

Metro®

WEST SANTA ANA BRANCH TRANSIT CORRIDOR PROJECT

Final EIS/EIR Appendix C: System Components and Ancillary Facilities

March 2024

Final Environmental Impact Statement/ Environmental Impact Report

LEAD AGENCIES: Federal Transit Administration of the U.S. Department of Transportation; Los Angeles County Metropolitan Transportation Authority

State Clearinghouse No.: 2017061007

TITLE OF PROPOSED ACTION: West Santa Ana Branch Transit Corridor Project

Additional written comments and/or questions concerning this document should be directed to the following:

Meghna Khanna
Project Manager
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza, M/S 99-22-7
Los Angeles, CA 90012
Phone: (213) 922-6262
SGL@metro.net

Charlene Lee Lorenzo
Senior Director
Federal Transit Administration Region 9
Los Angeles Office
888 S. Figueroa Street, Suite 440
Los Angeles, CA 90017
Phone: (213) 202-3952

Rusty Whisman
Senior Transportation Program Specialist
Federal Transit Administration Region 9
888 S. Figueroa Street, Suite 440
Los Angeles, CA 90017
Phone: (213) 202-3956

TABLE OF CONTENTS

1 SYSTEM COMPONENTS AND ANCILLARY FACILITIES 1-1
1.1 Light Rail Transit Guideways 1-1
1.1.1 At-Grade LRT Guideway 1-1
1.1.2 Aerial LRT Guideway 1-3
1.2 Overhead Catenary System 1-4
1.3 Tail Tracks 1-5
1.4 Crossovers 1-5
1.5 Traction Power Substations 1-6
1.6 Train Control House and Electric Power Switches 1-8
1.7 Radio Antennas 1-8
1.8 Grade Crossings 1-9
1.9 Waterway Crossings 1-14
1.10 Freight Track Realignment 1-14
1.11 Pedestrian Facilities 1-16
1.11.1 Pedestrian Bridges 1-16
1.11.2 Pedestrian Walkway 1-16
1.12 Bicycle Facilities 1-16
1.12.1 Bike Trail 1-16
1.12.2 Bike Hubs 1-16
1.13 Metro Public Art 1-16
1.14 Maintenance and Storage Facility 1-17

Tables

Table 1.1. Project Component Estimated Heights 1-5
Table 1.2. Proposed TPSS Locations 1-6
Table 1.3. Radio Antenna Locations 1-8
Table 1.4. Grade Crossings and Configurations 1-9
Table 1.5. Freight Track Relocation 1-14

Figures

Figure 1-1. Typical At-Grade LRT Guideway with Freight Service 1-2
Figure 1-2. Example of At-Grade LRT Guideway and Aerial LRT Guideway 1-2
Figure 1-3. Typical Aerial LRT Guideway with Freight Service 1-3
Figure 1-4. Example of Aerial Structure Straddle Bent (Metro E [Expo] Line) 1-4
Figure 1-5. Example of Overhead Catenary System 1-4
Figure 1-6. Example of a Traction Power Substation 1-6
Figure 1-7. Example of Train Control House (Metro L [Gold] Line, Monrovia Station) 1-8
Figure 1-8. Freeway Crossings 1-12
Figure 1-9. Example of Typical Grade and Pedestrian Gate Crossing Equipment 1-13
Figure 1-10. Existing Rail Right-of-Way Ownership 1-15

ACRONYMS AND ABBREVIATIONS

Acronyms	Definitions
ADA	Americans with Disabilities Act
CPUC	California Public Utilities Commission
EIS/EIR	environmental impact statement/environmental impact report
I-	Interstate
LA	Los Angeles
LPA	Locally Preferred Alternative
LRT	light rail transit
LRV	light rail vehicle
MSF	maintenance and storage facility
OCS	overhead catenary system
PEROW	Pacific Electric Right-of-Way
ROW	right-of-way
TPSS	traction power substation
UPRR	Union Pacific Railroad
WSAB	West Santa Ana Branch

1 SYSTEM COMPONENTS AND ANCILLARY FACILITIES

This Appendix describes the required system components and ancillary facilities for the Locally Preferred Alternative (LPA) and supplements the narrative provided in Chapter 2, Project Description/Alternatives Considered, of the *West Santa Ana Branch (WSAB) Transit Corridor Project Final Environmental Impact Statement/Environmental Impact Report (Final EIS/EIR)*. The following sections describe the light rail transit (LRT) system operation configurations, system components, and ancillary facilities that provide power and operate the LRT. The LRT system components will adhere to the Metro Rail Design Criteria, or equivalent, and will have a similar Metro LRT system as existing lines, such as the Metro E (Expo) Line. See Appendix B, *Final Advanced Conceptual Alignment Design*, for more detail on the system components along the LPA alignment.

1.1 Light Rail Transit Guideways

The LPA will consist of a double track LRT system and will operate at-grade and on an aerial viaduct. The guideway will be comprised of the light rail tracks, the sub-structure that supports it, and an overhead catenary system (OCS) to electrically power the light rail vehicles (LRVs).

1.1.1 At-Grade LRT Guideway

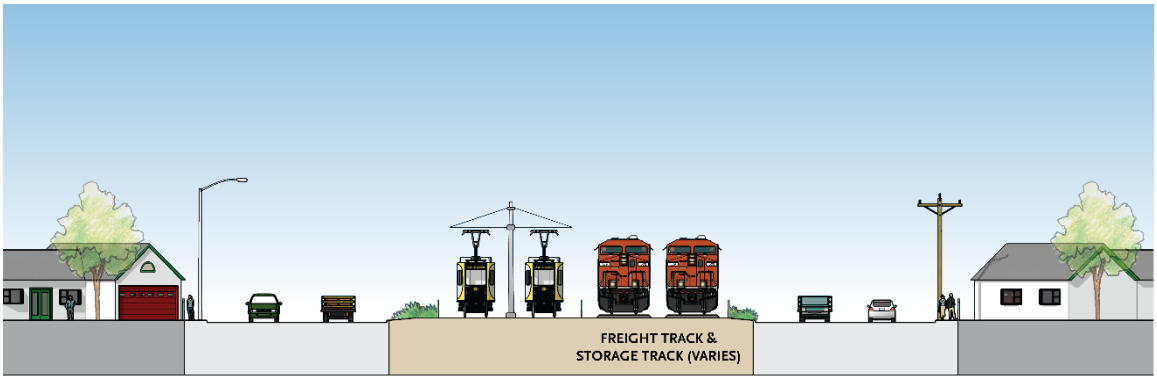
At-grade segments of the alignment will be located in dedicated rail right-of-way (ROW) that is independent of the street network. The clearances required for an at-grade LRT configuration are approximately 35 feet for ROW clearance and a minimum vertical clearance of 15 feet above top of rail. Where the LPA will share ROW with existing freight tracks, the relationship between the LRT and freight tracks will be as follows:

- La Habra Branch: The LRT tracks will be along the south side of the corridor and relocated freight track will be along the north
- San Pedro Subdivision ROW: LRT tracks will be along the east side of the corridor and relocated freight track and sidings along the west
- Pacific Electric Right-of-Way (PEROW): LRT tracks will be along the south side of the corridor and relocated freight track along the north

Along the corridor, current freight track and sidings will be relocated so that clearances will be met. The distance between the LRT track centerlines will be a minimum of 14 feet, and the distance between the nearest realigned freight track centerline and LRT track centerline will be a minimum of 20 feet. At several locations along the PEROW, existing bike paths will require realignment, and consideration will be given to future bike paths planned within the corridor.

Figure 1-1 illustrates a typical cross section of an at-grade guideway with adjacent freight tracks. Figure 1-2 shows an example of a typical center-of-street at-grade configuration on the existing Metro E (Expo) Line.

Figure 1-1. Typical At-Grade LRT Guideway with Freight Service



Source: Cityworks Design 2020
Note: Landscape features will be dependent on available ROW, maintenance budget, and capital costs.

Figure 1-2. Example of At-Grade LRT Guideway and Aerial LRT Guideway

At-Grade LRT Guideway on the Metro E Line

Aerial Guideway Transition to At-Grade Level over Retaining Wall on the Metro E Line

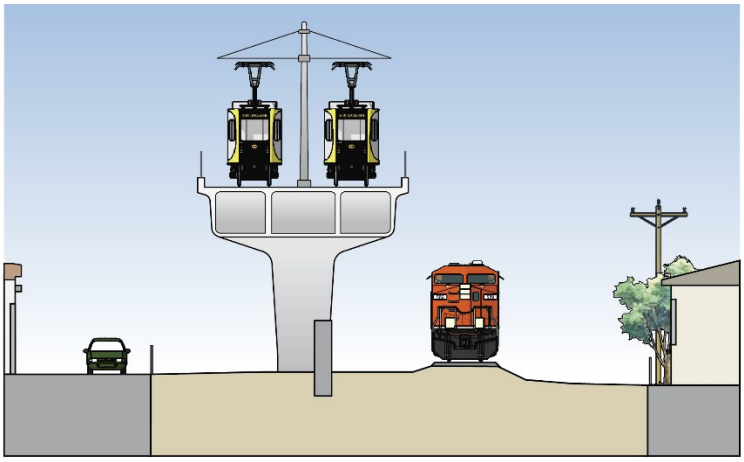
Source: Metro 2020

1.1.2 Aerial LRT Guideway

An aerial LRT guideway will be required over specific streets, street intersections, I-105, railroad crossings, and river crossings. The aerial segments of the LPA will be supported by retained fill embankments, columns, or straddle bents. Retained fill embankments will be typically constructed at the transitions between aerial structures and at-grade segments, as shown in Figure 1-2.

Figure 1-3 depicts a typical cross section for an aerial LRT guideway configuration. This type of aerial configuration will occur near the Firestone Station and will provide the option of aerial LRT guideways with freight service.

Figure 1-3. Typical Aerial LRT Guideway with Freight Service



Source: Cityworks Design 2020
Note: Landscape features will be dependent on available ROW, maintenance budget, and capital cost.

Typical aerial structures will consist of single-pier columns that support a dual-track guideway that will be approximately 35 feet wide with a minimum vertical clearance of 15 feet to the street level below. Straddle bent columns will consist of two or more columns supporting a beam and the LRT guideway. The beams will typically be located where the LRT track centerlines are widened, such as near stations, or where a single-pier structure will impact existing roadway or railroad tracks.

To meet Union Pacific Railroad (UPRR) requirements for vertical clearance, the aerial guideway spanning over the UPRR ROW will have a minimum vertical clearance of 24 feet over freight and a minimum of 15 feet over roadways. Figure 1-4 shows an example of an aerial structure straddle bent along the Metro E (Expo) Line.

Figure 1-4. Example of Aerial Structure Straddle Bent (Metro E [Expo] Line)

Source: WSP 2020

1.2 Overhead Catenary System

The OCS electrically powers the LRT through a contact wire suspended above the track, as shown in Figure 1-5. The wires will be located approximately 20 feet above the track, supported by poles spaced at an average interval of 150 feet. The catenary poles generally will be located in the center of the project alignment or located on both sides of the tracks in some locations. Table 1.1 presents the estimated height of the OCS poles and other system components.

Figure 1-5. Example of Overhead Catenary System

Source: WSP 2020

Table 1.1. Project Component Estimated Heights

Project Component	Estimated Dimensions/Heights[1]
Station canopies	~15 feet in height
TPSS	~15 feet wide by 40 feet long by 15 feet in height, with 8-foot-tall fences around the TPSS site
Train control houses	Small buildings generally under 10 feet in height
Radio antenna	~35 to ~60 feet in height
Radio house	~35 feet by ~15 feet
TC&C house	~12 feet by ~65 feet
At-grade-stations, OCS poles, and overhead wires	≤ ~20 feet in height
Aerial structures[2]	▪ ~55 feet tall at Slauson/A Line Station (~70 feet to top of elevator shaft) ▪ ~32 feet tall at Firestone and Paramount/Rosecrans Stations (~47 feet with station canopies) ▪ ~32 feet tall at other locations (~36 to ~44 feet with sound walls)
Fences (including mix of retaining walls and fences)[2]	~6 feet in height
Soundwalls as identified in Mitigation Measures NOI-1 (Soundwalls) and NOI-5 (Freight Track Relocation Soundwalls)[3]	≥~ 6 to 16 feet in height
Soundwalls placed on an aerial structure as identified in Mitigation Measure NOI-1 (Soundwalls)[3]	~4 to 12 feet in height

Source: Metro 2023
Notes: [1] Dimensions and heights are approximate; actual dimensions and height may vary.
[2] Height measured to the highest portion of the aerial structure.
[3] See *West Santa Ana Branch Transit Corridor Project Final Noise and Vibration Impact Analysis Report* (Metro 2024j) for Mitigation Measures NOI-1 (Soundwalls) and NOI-5 (Freight Track Relocation Soundwalls).
LPA = Locally Preferred Alternative; OCS = overhead catenary system; TC&C house = train control and communication house; TPSS = traction power substations

1.3 Tail Tracks

Tail tracks are additional tracks that extend beyond the end of the mainline tracks and can be used for temporarily parking, storing, or reversing the direction of trains. While the tracks are designed to allow for layover if needed, trains will not sit at the end of the line. Tail tracks can also be used during construction of future extensions without disrupting existing service. Tail tracks will be provided at both terminal stations for the LPA, will extend beyond the station platforms, and will be of sufficient length to accommodate one three-car train on each track.

1.4 Crossovers

A track crossover is specialized trackwork that allows a train to reverse direction and use an adjacent track to continue operation. Typically, a track crossover consists of two switches and a shorter length of connecting track that allows a train to switch to an adjacent track.

1.5 Traction Power Substations

A traction power substation (TPSS) provides power to the OCS and is typically a metal prefabricated building approximately 15 feet wide by 40 feet long by 15 feet high. The TPSS site will include a perimeter barrier, such as a fence, and space for utility equipment, manholes, and pull boxes, and to allow for vehicle access. The entire TPSS site will require an area approximately 80 feet by 45 feet or equivalent in different configurations. The actual size of the site will also depend on ROW considerations. Figure 1-6 shows an example of a TPSS facility.

Figure 1-6. Example of a Traction Power Substation

Traction Power Substation Facility on the Metro L Line

Source: WSP 2020

Table 1.2 summarizes the TPSS locations for the LPA. 17 TPSS facilities are proposed for the LPA, with alternate site options identified in some locations. The identified TPSS sites in addition to the optional sites result in a total of 24 TPSS sites identified, but only 17 will be required. Only one TPSS facility per proposed TPSS location will be constructed.

Table 1.2. Proposed TPSS Locations

TPSS ID	Description (General location and parcel impact)	Approximate LRT Stationing
17 Slauson	South of Slauson Ave and west of Randolph St within Union Pacific Railroad property	670+50
16	West of Regent St and north of Randolph St within private property	694+25
15	North of Randolph St and west of Seville Ave within private property	729+00
15(e)*	East of Stafford Ave and north of Randolph St within private property	737+75

TPSS ID	Description (General location and parcel impact)	Approximate LRT Stationing
14	East of State St and north of Randolph St within Union Pacific Railroad property	768+46
13	North of Randolph Ave and Bissel Pl within Union Pacific Railroad property	787+00
12	North of Walnut St and east of Salt Lake Ave within private property	834+75
11	North of Cecilia St and east of Salt Lake Ave within private property	887+00
10	South of Firestone Blvd and east of Branyon Ave within private property	938+75
9	Between Miller Way and the I-710 Freeway and north of the existing tracks within private property	987+75
9(e)*	Southeast of the Rio Hondo Channel and north of Meadow Rd within private property	998+75
8	North of Laurel St within a vacant, public-owned property	1044+75
8(e)*	South of Gardendale and adjacent to the west side of Dakota Ave within private property	1052+25
7(e1)*	West of Industrial Ave and Lincoln Ave within private property in the proposed parking facility	1073+40
7	North of Century Blvd and east of Center St within private property.	1080+00
7(e2)*	South of Rose Street and just west of Arthur Ave within Metro-owned property	1110+50
6	South of Paramount High School's tennis courts and just east of the existing pedestrian bridge within public-owned property	1140+00
5(e)*	North of Hegel St and south of the Bellflower Bike Trail within private property	1195+50
5	North of Hegel St and the Bellflower Bike Trail within private property	1196+50
4	West of Bellflower Blvd within private property within the proposed parking facility	1243+50
3	South of Flora Vista Park and just east of Beach St. within Metro-owned property	1301+50
3(e)*	East of Studebaker Rd within Metro-owned property	1345+00
2	Southeast of the crossing at Gridley Rd and 183rd St within Metro-owned property	1376+25
1	Between Corby Ave and Pioneer Blvd north of 188th St impacting a private property within the proposed parking structure	1405+00

Source: Metro 2023
Note: * optional site; LRT = light rail transit; TPSS = traction power substation

1.6 Train Control House and Electric Power Switches

Train control houses containing signal equipment will be located periodically along the alignment within the ROW. Electric power switches, contained in metal box-like enclosures, will be required at ground level. These switches will transmit electric power from the Southern California Edison electric grid to the traction power and other rail systems. Figure 1-7 shows an example of a typical train control house.

Figure 1-7. Example of Train Control House (Metro L [Gold] Line, Monrovia Station)

Source: WSP 2019

1.7 Radio Antennas

Radio antennas will be installed along the alignment to support communications between the transmitter and receiver. The radio antennas will be 35 to 60 feet high, measured from ground level, or alternatively two 35-foot-tall poles could be substituted. The radio antennas will consist of a concrete foundation and a tapered tubular steel monopole with multiple antennas at the top, plus an adjacent cabinet for radio equipment. Table 1.3 summarizes the radio antenna location options. These locations remain unchanged from the Draft EIS/EIR for Alternative 3.

Table 1.3. Radio Antenna Locations

Radio Antenna ID	General Description	LRT Stationing
1	East of the Pacific/Randolph Station platform near Seville Ave	732+60
2	North of the I-105/C Line Station platform and west of the parking facility	1077+40
3	At the southeast corner of the MSF	1200+40
4	Southwest of the Pioneer Station platform between the parking facility and the station platform	1406+60

Source: WSP 2023
Note: LRT = light rail transit; MSF = maintenance and storage facility

1.8 Grade Crossings

A grade separation is a physical separation between the railroad tracks and a roadway. Grade crossings for the LPA consist of at-grade crossings, aerial grade crossings, and undercrossings (at freeways). A total of 45 roadway crossings, 4 freeway crossings, 6 freight crossings, and 3 waterway crossings are planned. The LPA will cross 30 intersections at-grade and 15 road intersections in an aerial configuration. Table 1.4 lists the grade crossings and configuration of each grade crossing along the alignment by jurisdiction. Figure 1-8 illustrates the freeway crossings for the LPA.

Table 1.4. Grade Crossings and Configurations

Description	Jurisdiction	Intersection Crossing	Grade Crossing Configuration
Roadway Crossings	Los Angeles	57th St	Grade-Separated (Aerial)
	Los Angeles	Slauson Ave	Grade-Separated (Aerial)
	Huntington Park	Holmes Ave	Grade-Separated (Aerial)
	Huntington Park	Wilmington Ave	Closed
	Huntington Park	Alameda St West	At-Grade
	Huntington Park	Alameda St East	At-Grade
	Huntington Park	Regent St	Closed
	Huntington Park	Albany St	At-Grade
	Huntington Park	Santa Fe Ave	At-Grade
	Huntington Park	Malabar St	Closed
	Huntington Park	Rugby Ave	At-Grade
	Huntington Park	Pacific Blvd	At-Grade
	Huntington Park	Rita Ave	Closed
	Huntington Park	Seville Ave	At-Grade
	Huntington Park	Miles Ave	At-Grade
	Huntington Park	Arbutus Ave	Closed
	Huntington Park; Vernon	State St	At-Grade
	Huntington Park; Vernon	Randolph St	Grade-Separated (Aerial)
	Huntington Park; Bell	Gage Ave	At-Grade
	Cudahy	Bell Ave	At-Grade
	Huntington Park; Bell	Florence Ave	At-Grade
	Huntington Park; Cudahy	Otis Ave	At-Grade
	Huntington Park; Cudahy; South Gate	Santa Ana St	At-Grade
	South Gate; Cudahy	Ardine St	At-Grade
	South Gate	Atlantic Ave	Grade-Separated (Aerial)[1]

Description	Jurisdiction	Intersection Crossing	Grade Crossing Configuration
	South Gate	Firestone Blvd	Grade-Separated (Aerial)[1]
	South Gate	Rayo Ave	At-Grade
	South Gate	Southern Ave	At-Grade
	N/A	Frontage Rd[1]	Closed (Private)
	N/A	Miller Way[1]	Closed (Private)
	South Gate	Imperial Highway	Grade-Separated (Aerial)
	South Gate	Garfield Ave	Grade-Separated (Aerial)
	South Gate; Downey	Gardendale St	At-Grade
	South Gate	Main St	At-Grade
	South Gate	Century Blvd	At-Grade
	Paramount	N. Somerset Ranch Rd	Grade-Separated (Aerial)
	Paramount	S. Somerset Ranch Rd	Grade-Separated (Aerial)
	Paramount	Rosecrans Ave/Paramount Blvd	Grade-Separated (Aerial)[2]
	Paramount	Downey Ave	Grade-Separated (Aerial)
	Paramount	Somerset Blvd	At-Grade
	Paramount; Bellflower	Lakewood Blvd	At-Grade
	Bellflower	Clark Ave	At-Grade
	Bellflower	Alondra Blvd	At-Grade
	Bellflower	Bellflower Blvd	At-Grade
	Bellflower	Flower St	Grade-Separated (Aerial)
	Bellflower	Woodruff Ave	Grade-Separated (Aerial)
	N/A	Extra Space Storage Property[1]	At-Grade (Private)
	Cerritos	Artesia Blvd	At-Grade
	Cerritos	Studebaker Rd	At-Grade
	Cerritos; Artesia	183rd St/Gridley Rd	Grade-Separated (Aerial)
	Artesia	186th St	At-Grade
	Artesia	187th St	Closed
	Cerritos; Artesia	Pioneer Blvd	At-Grade (non-revenue)

Description	Jurisdiction	Intersection Crossing	Grade Crossing Configuration
Freeway Crossings	South Gate (Caltrans)	I-710 Freeway	Grade-Separated (new freeway undercrossing)
	Paramount (Caltrans)	I-105 Freeway	Grade-Separated (Aerial) (new bridge construction)
	Bellflower (Caltrans)	SR-91 Freeway	Grade-Separated (existing freeway undercrossing)
	Cerritos (Caltrans)	I-605 Freeway	Grade-Separated (existing freeway undercrossing)
Railroad Crossings[2]	Los Angeles	Randolph St/Slauson Ave	Grade-Separated (Aerial)
	Los Angeles	Randolph St/Holmes Ave	Grade-Separated (Aerial)
	Huntington Park	Randolph St/Alameda St	Grade-Separated (Aerial)
	Huntington Park	Randolph St/San Pedro Subdivision ROW	Grade-Separated (Aerial)
	South Gate	Atlantic Ave near Salt Lake Ave	Grade-Separated (Aerial)
	Paramount	C Line in I-105 ROW	Grade-Separated (Aerial)
	Paramount	San Pedro Subdivision ROW and PEROW	Grade-Separated (Aerial)
Waterway Crossings	South Gate	LA River	New Bridge
	South Gate	Rio Hondo Channel	New Bridge
	Cerritos	San Gabriel River	New Bridge

Source: WSP 2023
Notes:
[1] Locations include existing private property grade crossings.
[2] Locations do not include private spur track crossings.
N/A - indicates private crossings that are not in public jurisdiction.
PEROW = Pacific Electric Right-of-Way; ROW = right-of-way

Figure 1-8. Freeway Crossings

Source: WSP 2023

The California Public Utilities Commission (CPUC) has safety and security regulatory authority over all rail transit agencies in California and works in cooperation with the Federal Transit Administration and the transit agencies to enhance public safety and security. All LRT crossings will comply with CPUC regulations to ensure they are safely designed, constructed, and maintained. Each grade crossing will require a site-specific design. Typical at-grade crossings will include the following features, as applicable: roadway crossing gates, pedestrian crossing gates, new sidewalks, Americans with Disabilities Act (ADA)-compliant ramps, sidewalks, bulb-outs, raised medians, and/or other intersection amenities based on the Metro Rail Design Criteria, CPUC, and local city standards and coordination. Figure 1-9 depicts a typical at-grade vehicular crossing and typical at-grade pedestrian crossing.

Figure 1-9. Example of Typical Grade and Pedestrian Gate Crossing Equipment

Grade Crossing Equipment on the Metro E Line

Pedestrian Gate Crossing Equipment on the Metro E Line

Source: WSP 2020

1.9 Waterway Crossings

The LRT will cross three existing concrete-lined flood channels of the LA River, Rio Hondo, and San Gabriel River at existing railroad bridge crossings:

- A new LRT bridge will be constructed northeast of the existing LA River truss bridge to cross the LA River. The existing truss bridge will remain unaltered.
- A new LRT bridge will be constructed northeast of the existing Rio Hondo Channel bridge to cross the Rio Hondo Channel. The existing bridge will remain unaltered.
- A new LRT bridge spanning the San Gabriel River will be reconstructed in the same location at the existing abandoned freight bridge. The existing abandoned freight bridge will be demolished. Adequate clearance will be provided between the bottom of the bridges and the estimated high-water elevation. New bridge deck structures will be built above the existing river channel walls or levees, with new bridge piers or columns built within the channels.

1.10 Freight Track Realignment

The LPA will be located parallel to active freight track(s) in portions of the UPRR-owned Wilmington Branch ROW (between approximately East 55th Street along Long Beach Avenue to Slauson Avenue), UPRR-owned La Habra Branch ROW (between Slauson Avenue along Randolph Street to approximately Bissell Place), Ports of Los Angeles and Long Beach-owned San Pedro Subdivision ROW (between Randolph Street to approximately Paramount Boulevard), and the Metro-owned PEROW (between its intersection with the San Pedro Subdivision ROW from approximately Paramount Boulevard to Somerset Street). Along the Wilmington Branch ROW, the LRT will be in an aerial viaduct that will overhang the ROW. The LPA will require the following realignments of freight track(s) to accommodate the alignment and maintain existing freight operations:

- Relocation to the north of the LPA alignment within the La Habra Branch ROW
- Relocation to the west of the LPA alignment within the San Pedro Subdivision ROW
- Relocation to the north of the LPA alignment within the Metro-owned PEROW

The Project will also provide a minimum 20-foot clearance between the track centerlines of the closest LRT and freight track. Table 1.5 summarizes the length of freight relocation, and Figure 1-10 identifies the freight relocations.

Table 1.5. Freight Track Relocation

Rail ROW	Shared ROW with Freight (miles)	Freight Relocation (miles)
Wilmington Branch	0.3	0.1
La Habra Branch	2.3	2.3
San Pedro Subdivision	6.1	5.5
Metro-owned PEROW	1.2	0.8
Total	**9.8**	**8.7**

Source: WSP 2023
Notes: PEROW = Pacific Electric Right-of-Way; ROW = right-of-way

Figure 1-10. Existing Rail Right-of-Way Ownership

Source: WSP 2023

1.11 Pedestrian Facilities

The LPA will include or reconstruct aerial pedestrian bridge facilities at three locations and provide a walkway at another location.

1.11.1 Pedestrian Bridges

Pedestrian bridges as part of the LPA will be provided at the Slauson/A Line Station and at the I-105/C Line Station as part of the LRT bridge. Additionally, the existing pedestrian bridge at Paramount High School will be reconstructed as part of the Project. The two Slauson/A Line Station pedestrian bridges will connect the Metro A (Blue) Line Slauson Station platform via a mezzanine level to the WSAB Slauson/A Line Station platform.

At the I-105/C Line Station, pedestrian access between the WSAB Line and the I-105/C Line Station will be provided via a pedestrian walkway on the WSAB LRT bridge over the freeway to vertical circulation elements to connect to the Metro C Line Station.

The pedestrian bridge at Paramount High School will be reconstructed as part of the Project. The reconstructed bridge will comply with ADA requirements and extend across the entire PEROW. This pedestrian bridge will connect the Paramount High School east and west campuses.

1.11.2 Pedestrian Walkway

A new pedestrian walkway will be added just south of the I-105 to connect Arthur Avenue to the new LRT bridge being constructed over the I-105. The pedestrian walkway will connect residents on the south side of the I-105 to the pedestrian walkway along the LRT bridge in order to provide access to vertical circulation elements to connect to the Metro C Line Station.

1.12 Bicycle Facilities

1.12.1 Bike Trail

A portion of the existing Bellflower Bike Trail, a Class I bike path along the PEROW between Paramount Park and Somerset Boulevard in the City of Paramount, will be altered to accommodate the LPA. The existing bike trail between Somerset Boulevard and Lakewood Boulevard will be relocated from the south side to the north side of the ROW to accommodate the LRT alignment.

1.12.2 Bike Hubs

The LPA will include bike hubs at several station locations near existing bikeways for convenient access to and from local destinations. The bike hubs may include bicycle racks, lockers, and secure bike parking in addition to on-call mechanics. The bike hubs will offer and encourage “first mile, last mile” connections to transit. Planning and design of the bike hubs will occur during the final planning and design phase for the LPA.

1.13 Metro Public Art

The Project will include integrated public art in accordance with the Metro Art Program Policy. Integrated site-specific artwork allows for elements of variability to promote a sense of place and connection with the surrounding community.

1.14 Maintenance and Storage Facility

To support the LPA, a maintenance and storage (MSF) for rail cars with accommodations for maintenance and operation work staff and their equipment is required. MSFs accommodate daily servicing and cleaning, inspection and repairs, and storage of LRVs. Activities may occur in the MSF throughout the day and night depending upon train schedules, work load, and the maintenance requirements. The MSF will have storage tracks, each with sufficient length to store three-car train sets (referred to as a consist) and maintenance-of-way vehicle storage. The facility will include a main shop building with administrative offices, a cleaning platform, a TPSS, employee parking, a vehicle wash facility, a paint and body shop, and other facilities as needed. The yard lead track (i.e., the tracks leading from the mainline to the facility) will have sufficient length for a three-car consist[1].

The Bellflower MSF is a 21-acre site located in the City of Bellflower. The city-owned site is currently developed with a recreational commercial business (the Hollywood Sports Paintball & Airsoft Park and Bellflower BMX). Vehicular access to the site is currently provided from Somerset Boulevard. The entrance will be redesigned to be a signalized intersection with a dedicated turning lane into the driveway at the MSF. At full capacity, the MSF will be designed to store up to 80 LRVs and provide over 200 parking spaces.

The MSF site is adjacent to the project alignment, and lead tracks will be constructed within the Metro-owned PEROW. This segment of the project alignment will operate at-grade, thereby allowing easy access to the site for the lead track along the eastern side of the property. Lead tracks will be approximately 0.3 mile in an at-grade configuration, and no additional property impacts or grade crossings are expected as part of the MSF lead track design.

[1] Consist refers to multiple train units of cars which are coupled into sets. Passengers can typically move between the consist of train cars.