

# Hawthorne Option: Key Issues and Responses September 2025

## C LINE (GREEN) EXTENSION TO TORRANCE



# Hawthorne Option: Key Issues and Responses

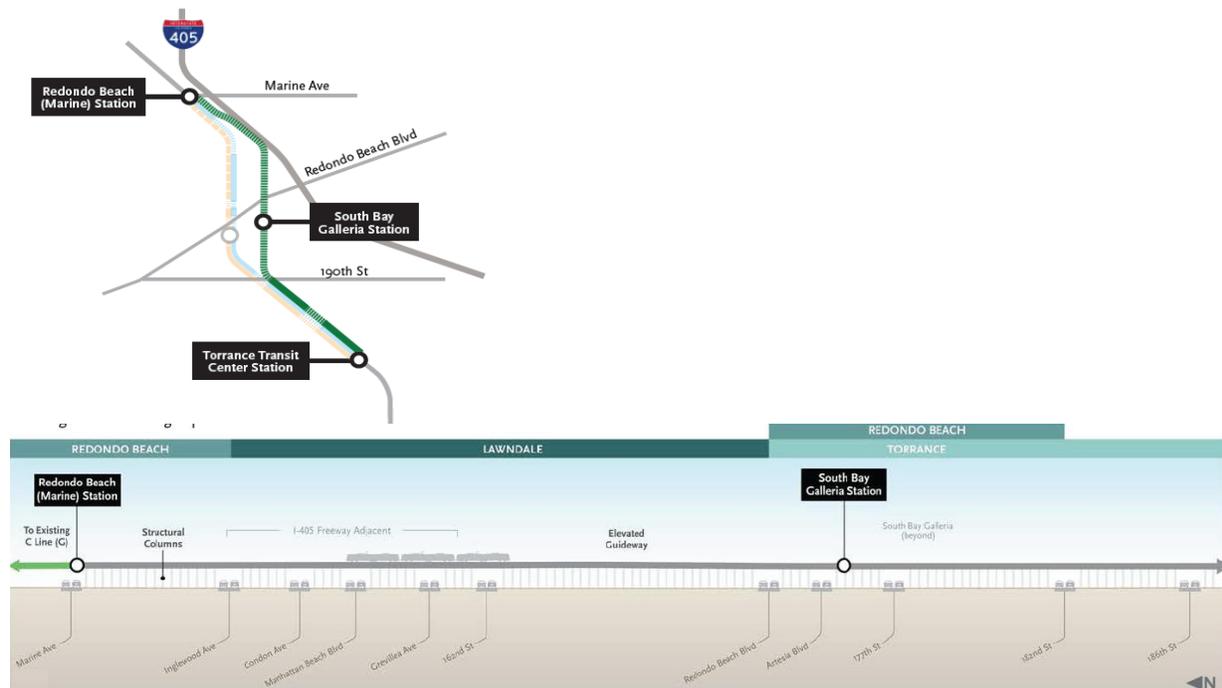
September 2025

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## Overview

This document summarizes key issues and responses to comments received during the public comment period on the Draft Environmental Impact Report (EIR) regarding the Hawthorne Boulevard Option. This document organizes the written responses included in the Final EIR by topic area and includes exhibits from the Draft EIR and technical studies to make the information more accessible. For complete responses to public comments, see Chapter 5 of the Final EIR, available on the project website at [www.metro.net/clineext](http://www.metro.net/clineext).



Diagrams of Hawthorne Blvd Option (Urban Design Report, 2023)

## Comparison of Station Area & Connectivity: Hawthorne Option vs. Metro ROW Alignments

**Station Proximity to South Bay Galleria:** Both Redondo Beach station locations studied in the Draft EIR would serve the South Bay Galleria and planned redevelopment area, which extends from Hawthorne Boulevard to Kingsdale Avenue and includes the existing Redondo Beach Transit Center (TC). The South Bay Galleria Station, associated with the Hawthorne Option, would be located near the northeastern corner of the redevelopment site, while the Redondo Beach TC Station, included in all three alignment options along the Metro right of way (ROW), including the locally preferred alternative (LPA), would be located near the southwestern corner of the redevelopment site, directly adjacent to the Redondo Beach TC. Both station locations would be within easy walking distance of the South Bay Galleria redevelopment area and South Bay Marketplace.

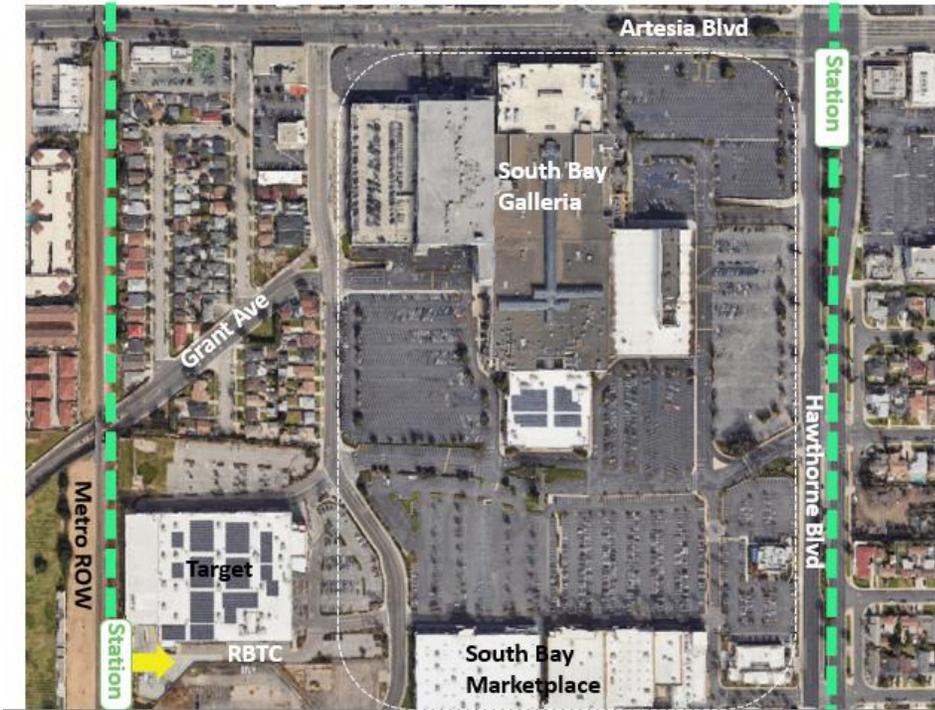
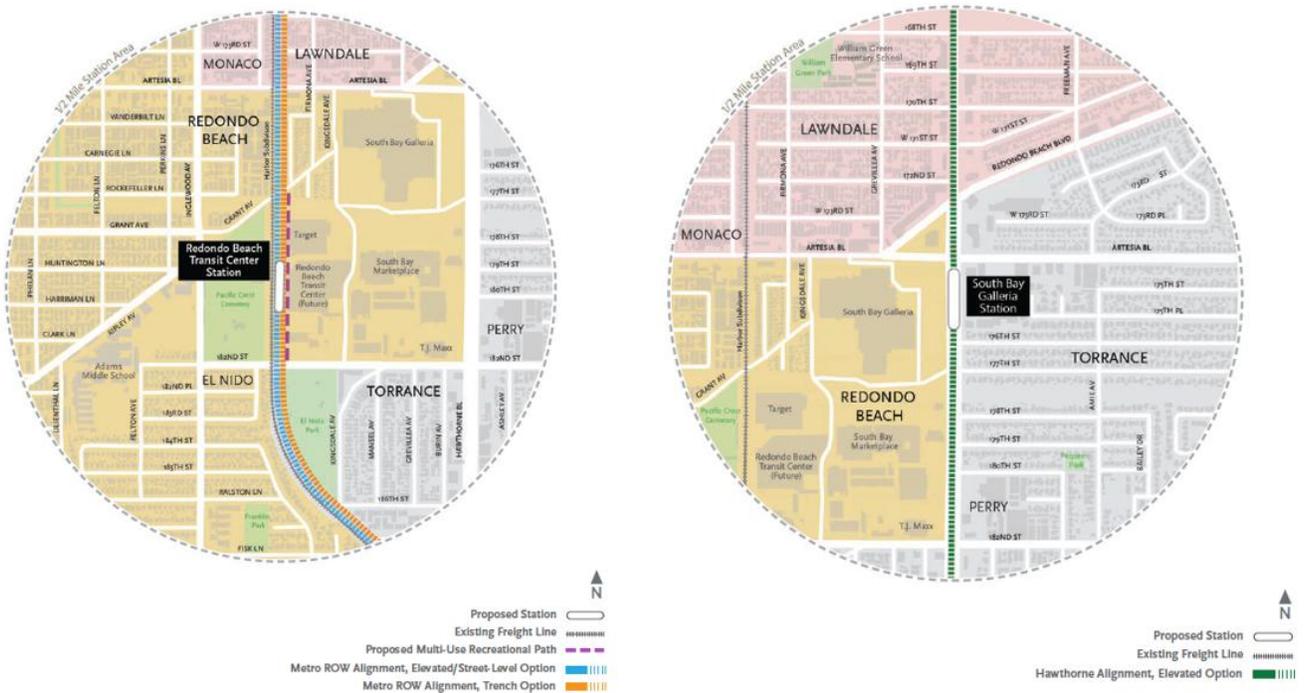


Diagram of proposed alignment options, stations, and surrounding uses in Redondo Beach (Metro, 2025)



Diagrams of Half-Mile Radius around Proposed Stations in Redondo Beach (Urban Design Report, 2023)

**Connectivity to Transit Center:** Both the South Bay Galleria Station (Hawthorne Option) and the Redondo Beach TC (all Metro ROW options, including LPA) would be within walking distance of the South

Bay Galleria. However, the Redondo Beach TC Station would be better suited to directly serve rail-to=bus transfers at the Redondo Beach TC and would provide a more convenient drop-off and pickup location than the South Bay Galleria Station. Accordingly, the regional connectivity benefits associated with the Hawthorne Option are also anticipated with the ROW alternatives, including the LPA, and the ROW alternatives could offer greater connectivity overall.

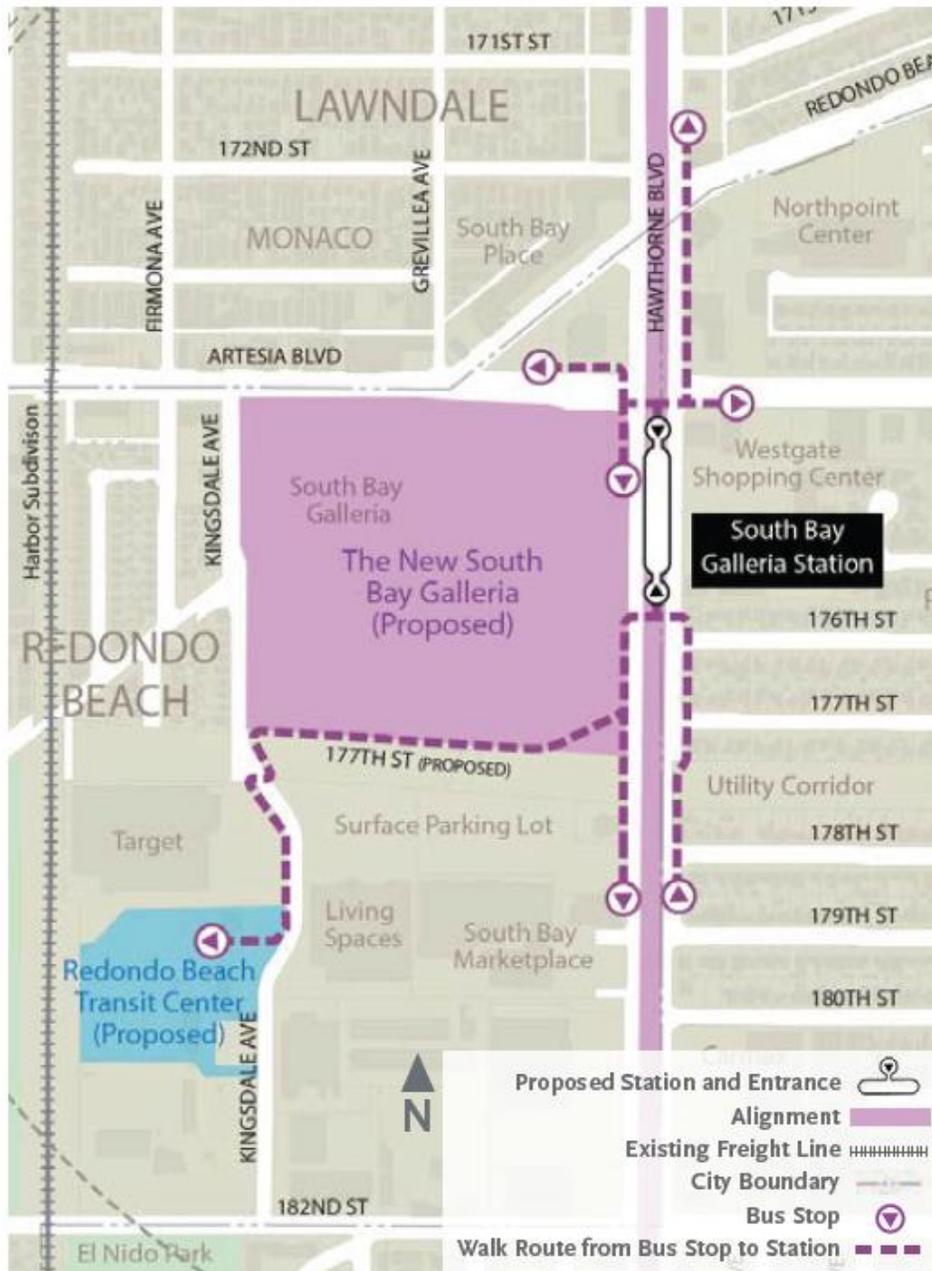


Diagram of pedestrian connection between proposed South Bay Galleria station and Redondo Beach Transit Center (Urban Design Report, 2023)

**Connectivity to LAX and Travel Times:** In Fall 2024, Metro implemented a new operating pattern for the Metro C and K Lines. Under this revised service plan, the project would operate as part of the K Line. Under this service plan, all alignments studied in the Draft EIR would connect directly to LAX via the K Line. Metro’s modeling shows that travel times between the Torrance Transit Center and the LAX/Metro Transit Center Station would be the same for both the Metro ROW alignments and Hawthorne Option—approximately 19-minutes.

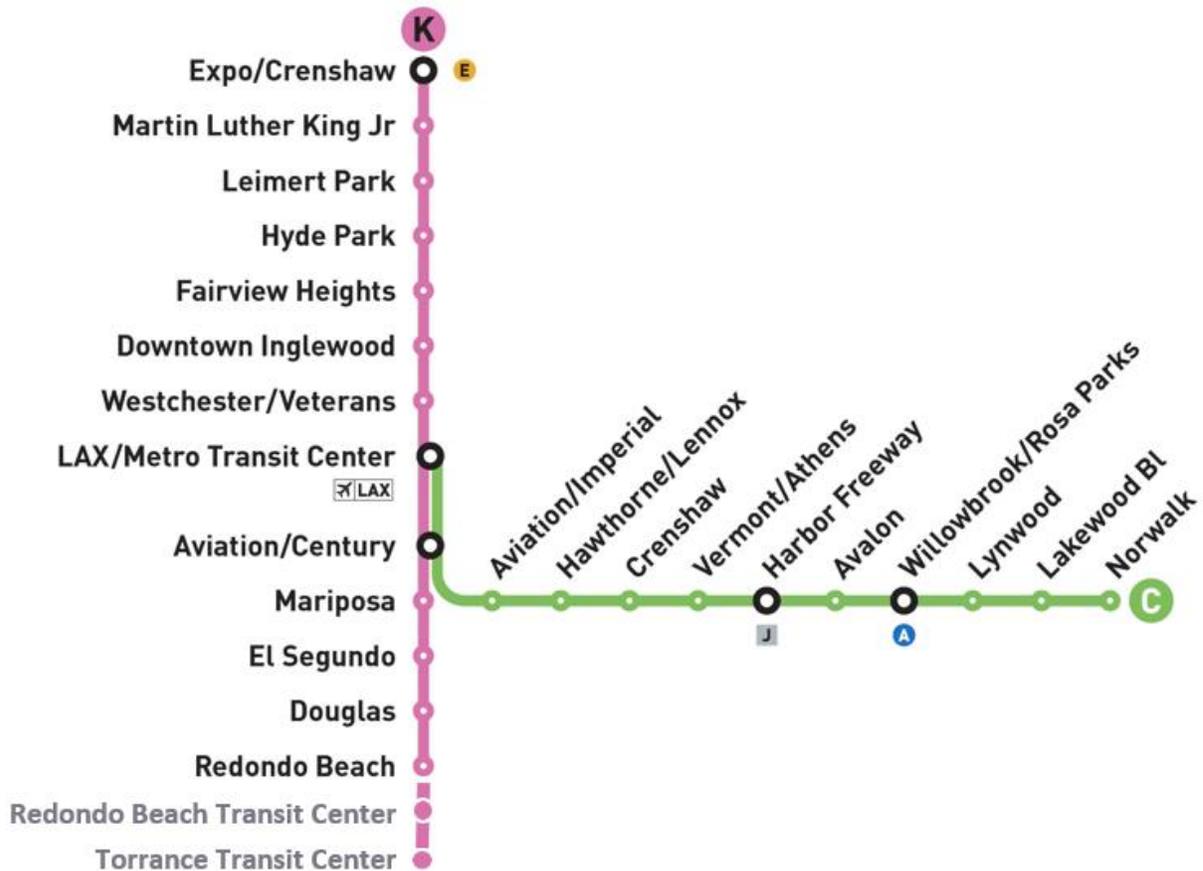
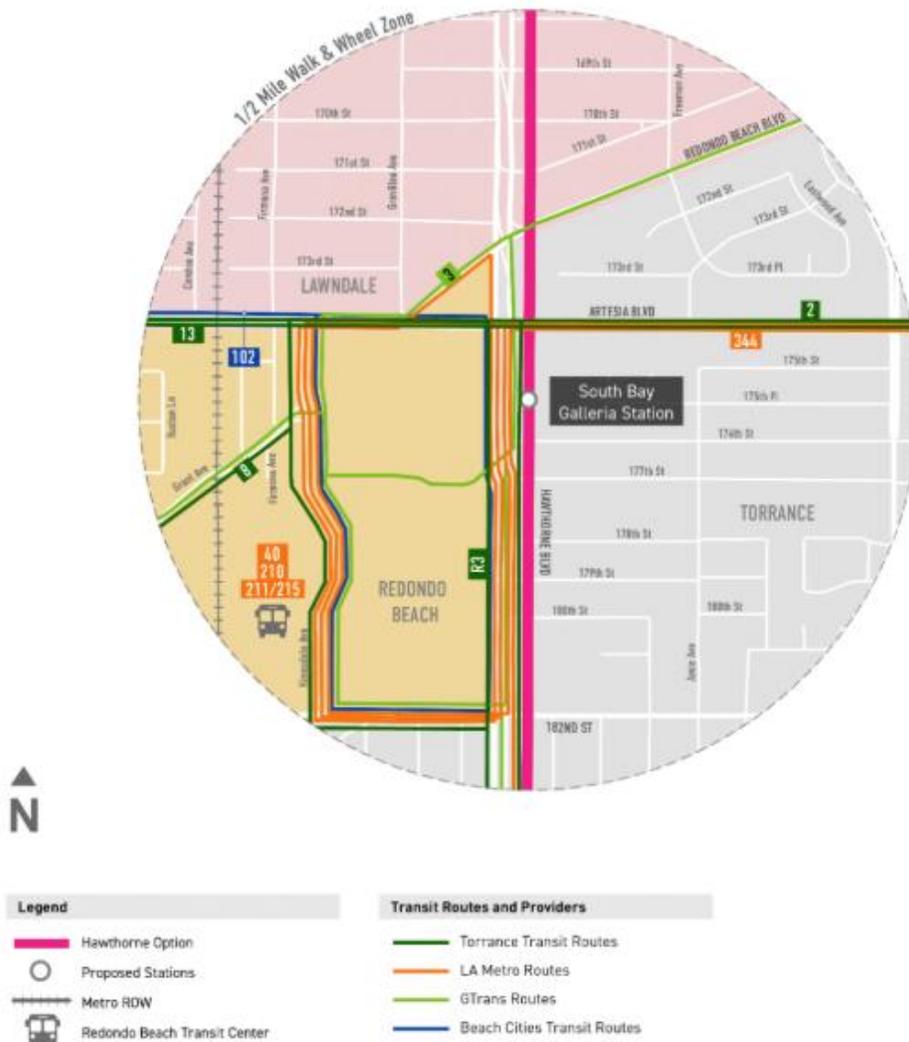


Diagram of Metro C and K Line stations with connections to LAX/Metro Center (Metro, 2025)

**Bus Connectivity to Station:** As shown in Figure 3.1-4 on page 3.1-19 of the Draft EIR, many existing bus transit services travel along Hawthorne Boulevard and pass by the proposed South Bay Galleria Station location on their way to the Redondo Beach Transit Center. Metro and other transit operators regularly adjust bus routes during construction of new rail stations and in response to rider demand and accessibility needs. The bus routes could be adjusted to add a stop close to the proposed South Bay Galleria Station and connect riders to the Redondo Beach Transit Center. By the time of construction of this project, the existing transit network would have the flexibility to adapt to ensure effective bus-rail connections.

**Figure 3.1-4 Hawthorne Option Study Area Base Year Transit Lines (South Bay Galleria Station)**



Source: Fehr & Peers, 2022; Metro, 2022; Cities of Torrance, Lawndale, Gardena, Redondo Beach, 2022

Figure 3.1-4 of the Draft EIR, showing transit routes and providers near the South Bay Galleria (Draft EIR, 2023)

**Station Parking:** The project would not add new parking at the Redondo Beach TC, and existing parking at this facility would remain available for transit users.

Based on Metro’s system experience, the majority of rail passengers access stations by walking, bicycling, or transferring from buses rather than driving stations. Metro’s annual On-Board Customer Satisfaction

Surveys show that even at stations with parking, most of that parking is typically underutilized under normal conditions. A similar pattern is expected for the proposed South Bay Galleria Station, with riders accessing the station by foot, bicycle, or bus.

**First & Last Mile Connections:** During the planning and design phases of major transit projects, Metro assists local jurisdictions in identifying potential First/Last Mile (FLM) improvements, such as crosswalks, bike lanes, landscaping, and pedestrian safety enhancements. However, implementation of these improvements is the responsibility of the local cities. If the project is approved, Metro would coordinate with the local jurisdictions to support FLM planning. The project would not interfere with existing bus service or prevent future bus service expansion (see Draft EIR Sections 3.1-4.1.1 and 3.1-4.1.2). Development of either the Redondo Beach TC Station (as part of Metro ROW alignments, including the LPA) or South Bay Galleria Station (as part of the Hawthorne Option), would improve bus-rail connections and provide convenient transit access to surrounding destinations.

### Hawthorne Option: Land Use Planning

**Community Division:** The Hawthorne Option would be entirely elevated, running parallel to Interstate 405 (I-405) before continuing southbound in the median of Hawthorne Boulevard. Because the guideway would pass above the street, there would be no conflicts between light rail operations and roadway crossings, and no impediment to pedestrian movement across Hawthorne Boulevard. Crosswalks would be maintained, replaced, or added, as needed to preserve connectivity between both sides of the community. The primary changes to the roadway would involve reconfiguring intersections to relocate left-turn lanes and reducing median parking to accommodate the guideway's support columns. While these modifications may alter traffic flow, they would not prevent vehicles or pedestrians from crossing Hawthorne Boulevard, and therefore, they would not physically divide the community.

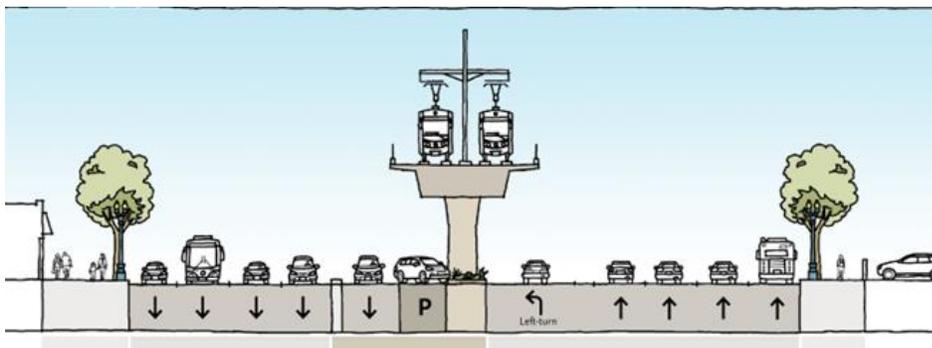


Diagram of Hawthorne Blvd Option between 171st Street and Redondo Beach Blvd (Draft EIR, 2023)

**Hawthorne Blvd Corridor Specific Plan:** The Final EIR incorporates additional information about the business and commercial goals of Hawthorne Boulevard Corridor Specific Plan, including the vision for the North Torrance District as a gateway and active commercial environment (see revisions to Draft EIR Section 3.2-1.3 and Table 3.2-5, as shown in Final EIR Section 4.6 of Chapter 4, Corrections and Additions). These additions do not alter the analyses or conclusions of the Draft EIR. As evaluated in Section 3.2-4.2.2 of the Draft EIR, the Hawthorne Option would not conflict with land use plans or policies adopted to avoid or mitigate environmental effects. To the contrary, light rail service along Hawthorne Boulevard and the proposed South Bay Galleria Station would support the Specific Plan's goals by offering an alternative to car travel and aligning with future population and employment growth.

## Property Values and Impacts to Businesses under the Hawthorne Option

**Business Outreach & Notifications:** As part of the environmental review process, Metro notified all property owners along the proposed alignments, including those with properties potentially affected by the alignments studied in the Draft EIR. Business-specific outreach was also conducted along each alignment under study. In addition to public meetings, Metro accepted comments from business owners through all standard channels, including email, phone, and written submissions. All comments received are part of the public record and have been considered in the environmental review and decision-making process.

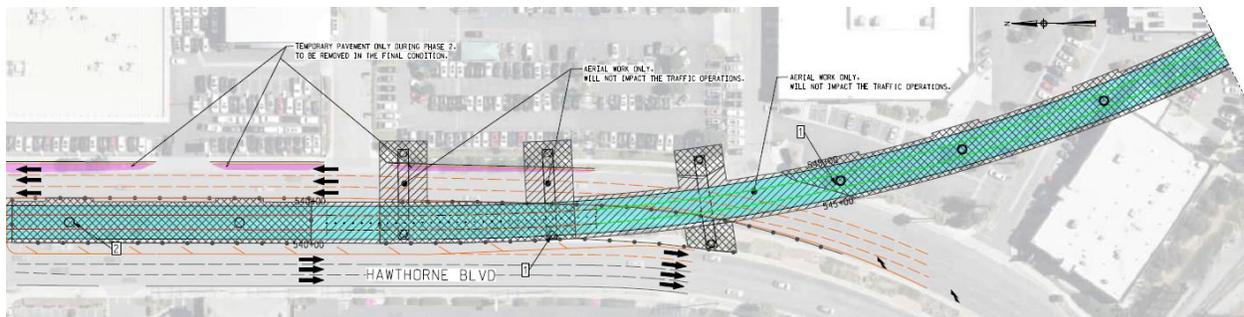
**Businesses Along the Corridor:** The Draft EIR and related analyses recognize that the Hawthorne Option would involve construction along a busy commercial corridor and regional throughfare that carries approximately 70,000 vehicles per day. Construction of the elevated light rail structure would require lane closures, which would affect traffic flow and potentially disrupt businesses. There are approximately 170 commercial properties supporting approximately 350 businesses along the Hawthorne Option alignment.

**Real Estate & Potential Property Acquisitions:** During advanced conceptual engineering, Metro sought to minimize impacts to private properties for all alignment options, including the Hawthorne Option. While it is possible to avoid displacement of residents, Metro determined that the Hawthorne Option could not be built or operated without permanent acquisition of non-residential properties, which would in turn affect associated businesses. Among the alignment options studied, the Hawthorne Option would require the greatest number of property acquisitions and result in the highest number of business displacements. Several commercial properties along Hawthorne Boulevard, including gas stations, auto repair shops, self-storage, furniture store, and auto dealerships, would need to be permanently acquired to accommodate the elevated alignment. In addition, temporary construction easements would be required, including an auto dealership and other businesses, to construct the support structures for the elevated structure. As discussed below, Metro's acquisition process prioritizes good-faith negotiations with property owners, with eminent domain considered only as a last resort. The properties affected by each alignment option are summarized in the 2023 Real Estate Acquisition Report.

**Potentially Affected Auto Dealerships:** As shown in Drawing RW-763 of Appendix 2-A of the Draft EIR, the Hawthorne Option is anticipated to require permanent acquisition of the Volvo Cars South Bay auto dealership (APN 4084-024-086) to allow the alignment to turn from Hawthorne Boulevard onto the Metro ROW. During advanced conceptual engineering, Metro sought to minimize property impacts along the transition from Hawthorne Boulevard to the Metro ROW; however, geometric and engineering constraints made it infeasible to fully avoid acquisitions where the alignment turns southeast toward the Metro ROW.

In addition to the acquisition of the Volvo Cars South Bay auto dealership, a permanent easement would be needed at Jerome's Furniture (APN 4084-024-026) to accommodate support structures, and at portions of the South Bay BMW/Mini auto dealership (APN 4084-024-023) for straddle bents to support the elevated structure while preserving visibility along Hawthorne Boulevard.

During construction, temporary easements would be required at South Bay BMW (APN 4084-024-023) and Penske South Bay Cadillac (APN 4084-024-063). However, most construction would occur within the street and public right-of-way under Caltrans jurisdiction for this segment of Hawthorne Boulevard.



Construction Staging Plan: Stage 2 (Draft EIR Select ACE Drawings, 2023)



Figure 3.3-82. Simulation View, looking south/southeast from Hawthorne Boulevard near 186th Street towards Jerome's Furniture Store and Auto Dealerships (Draft EIR, 2023)

**Real Estate Process:** Formal negotiations related to property acquisition would occur only if and when the project is approved, but Metro encourages stakeholder input throughout the environmental review process. The Metro Board of Directors (Metro Board) allocates funding for real estate, and any businesses displaced by the project would receive advance written notice along with information on their eligibility for relocation assistance and payments before being required to move.

While potential effects on sales, property, and business license tax revenues do not constitute significant environmental impacts under CEQA, Metro remains committed to minimizing property acquisitions and supporting the continued success of local businesses during and after construction.

**Support to Local Businesses:** Metro is also committed to helping small businesses remain viable during and after construction. Through initiatives like the Business Interruption Fund, Metro provides eligible businesses with assistance for certain operating expenses and marketing support to help them continue serving customers during construction. More information about these programs is available on the Metro website at <https://www.metro.net/about/business-interruption-fund/> and <https://eat-shop-play-lametro.hub.arcgis.com/>.

**Property Values:** Multiple studies (Shankar, P., Young, L., Haas, P., & Esling, P., 2019; Noh, Y., & Li, W., 2024; Rennert, L., 2022) show that residential and commercial properties located within a half-mile radius of transit stations tend to experience increased property values. This effect is typically attributed

to the enhanced accessibility provided by transit systems, offering greater access to destinations, such as employment centers, schools, and entertainment hubs. Proximity to transit stations also tends to improve community livability by fostering accessibility, which is increasingly valued in residential markets.

**Revitalization of Corridor vs Station Areas:** In response to comments regarding potential revitalization along Hawthorne Boulevard, studies show that revitalization effects are typically concentrated around station areas—generally within a quarter-mile to half-mile, or about a 5- to 10-minute walk. Both station options in Redondo Beach would include businesses along Hawthorne Boulevard within the station catchment area.

## Ridership – Alignment Comparisons

**Ridership Analysis:** As a part of the project evaluation, Metro conducted a ridership analysis to forecast future boardings, travel patterns, time savings, and congestion benefits (measured as a reduction of vehicle miles traveled or “VMT”). The methodology and findings are documented in the 2023 Ridership Summary Report, published concurrently with the Draft EIR.

Metro’s travel demand model uses socioeconomic data from the Southern California Association of Governments (SCAG) projected for 2042. The model calculates projected ridership for a typical weekday and applies an “annualization factor” of 318 to compute annual ridership. An annualization factor of 318 corresponds to 245 days of typical weekday ridership, and 120 days of weekend/holiday ridership at around 60% of weekday ridership. Based on this modeling, ridership projections show that riders from the greater South Bay and Palos Verdes Peninsula would use the system to connect to the regional rail network.

Metro’s travel demand model also accounts for telecommuting, which accelerated during the COVID-19 pandemic. Preliminary testing using SCAG’s Activity Based Model (ABM) indicates that the long-term number of telecommuters will be lower than some early forecasts suggested, in part because many industries cannot support a large fraction of telework.

The ridership analysis is based on reliable data that captures realistic long-term travel trends. Section 3.5-3.3 of the Draft EIR discusses the pandemic’s temporary effects on commuting and transit use, including the 2020–2021 decline due to remote work and altered travel habits. That discussion also notes a recovery in commute frequency and transit ridership, suggesting a gradual return to pre-pandemic patterns. The analysis relies on the best transportation data available, including projections from the University of California, Davis (2022).

Metro ridership, which declined during the COVID-19 pandemic in 2020, has grown steadily in the last few years. In February 2025, Metro reported 311 million boardings in 2024—an 8% increase over 2023 and the highest annual ridership since before the pandemic. Metro will continue to monitor telecommuting and ridership data to inform the project to ensure future analyses appropriately reflect long-term trends.

**Ridership Benefits in Relation to Construction Cost:** The Hawthorne Option was projected to generate higher total project trips and new riders. However, the Metro ROW alignments achieved greater reductions in VMT and higher travel time savings per trip. When considered alongside construction cost estimates, the travel benefit-to-cost analysis found that the Elevated/At-Grade Alignment and LPA outperformed both the Hawthorne Option and Trench Option. See summary table below, which was provided to the Metro Board in the April and May 2024 Board Reports during the selection of the LPA.

Comparison	Metro ROW (Elevated/ At-Grade)	Trench Option (ROW)	Hybrid Alt (ROW)	Hawthorne Option	High Frequency Bus Alt
Annual Project Trips	~3.68M	~3.68M	~3.68M	~4.96M	~1.29M
Annual New Riders	~1.49M	~1.49M	~1.49M	~1.74M	~396K
Annual VMT Reduction	~19.51M	~19.51M	~19.51M	~19.39M	~2.28M
Travel Time Savings/Trip (minutes)	22	22	22	19.7	18.2
Cost/ Annual New Riders	\$1,318	\$1,905	\$1,497	\$1,695	\$338
Cost/ Annual Project Trips	\$534	\$772	\$607	\$595	\$103
Cost/Annual VMT Reduced	\$101	\$146	\$115	\$153	\$59

Source: Metro (2024)

## Hawthorne Option Construction Considerations

**Construction Impacts to Roadways:** Hawthorne Boulevard serves as a major regional arterial and carries approximately 70,000 vehicle trips per day. Construction of the Hawthorne Option would entail lane closures and parking loss, which would exacerbate existing traffic congestion locally and across the South Bay during an extended five-to-seven-year construction period. Major utility relocations would also be required, including relocation of a major underground storm drain located beneath Hawthorne Boulevard, which would necessitate further lane closures. In addition, as discussed below, high-voltage overhead transmission lines that traverse the corridor would need to be elevated or relocated to accommodate the Hawthorne Option guideway. These factors contribute to the Hawthorne Option's estimated construction cost of \$2.96 billion (as estimated in 2022), the highest among the alignment options studied. As noted in the Metro Board Report for the Metro Board's May 23, 2024, regular meeting at which it selected the LPA, the Hawthorne Option also presents several implementation challenges, including encroachment into Caltrans ROW and the need for federal environmental review under the National Environmental Policy Act (NEPA), which could extend the project schedule by two to four years.

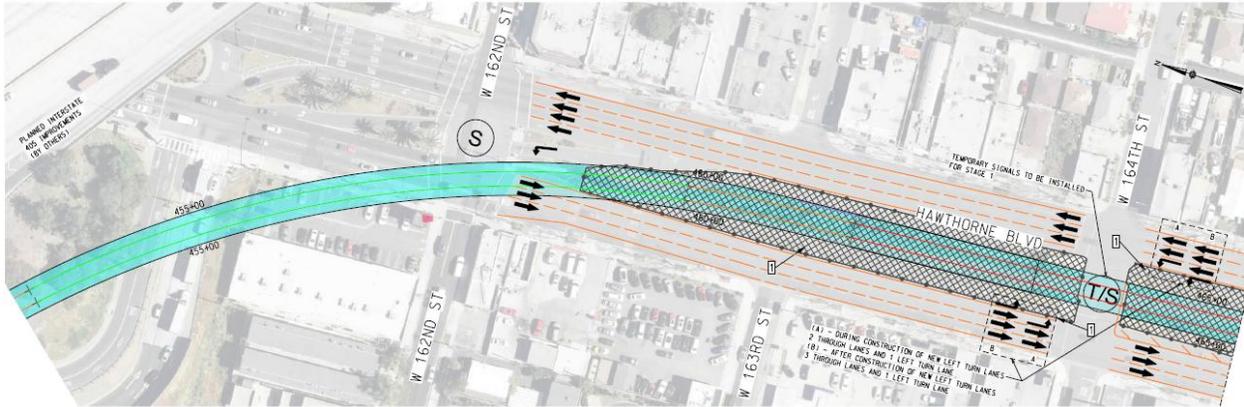
**Jurisdiction:** I-405, the San Diego Freeway, and portions of State Route 107 (SR 107) (Hawthorne Boulevard), remain under Caltrans' jurisdiction, except for the segment of SR 107 within the City of Lawndale, which Caltrans relinquished to the City in 2003. Metro would continue to coordinate with Caltrans to obtain permits required for design and construction of facilities that affect Caltrans facilities.

**Construction Permits:** Prior to initiating localized construction activities, Metro and its contractors would coordinate with relevant authorities, including Caltrans, consistent with standard practices and procedures, to obtain construction permits and coordinate plans for the timing and extent of lane closures.

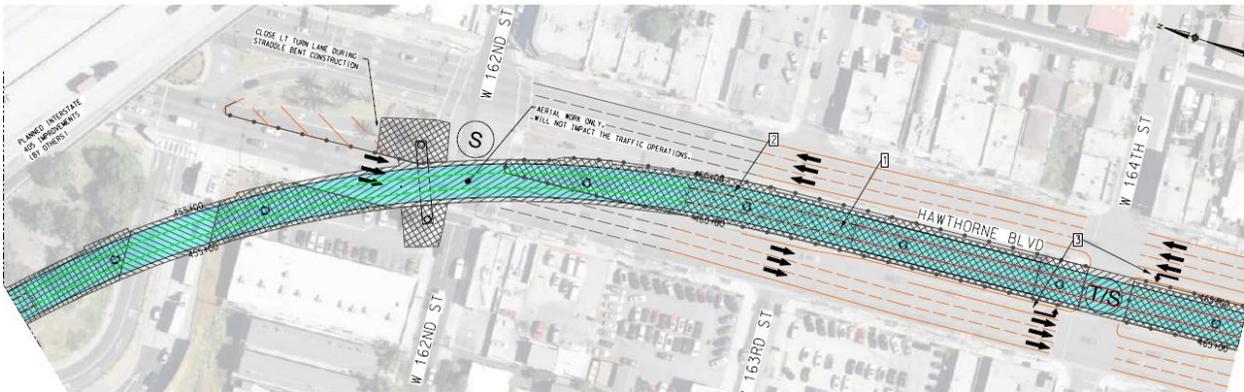
**Construction Staging:** As described in Appendix 2-A of the Draft EIR, construction for the Hawthorne Option is anticipated to be staged in three phases: modifying Hawthorne Boulevard lanes, constructing the light rail guideway, and completing median work. Phasing would be designed to minimize full closures and maintain access to all driveways during business hours. However, these staging plans reflect a conceptual level of design, and the precise nature and phasing of construction is not known or required to be determined during preparation of the EIR.

During construction, all alignment options would involve similar types of construction equipment, vehicles, signs, staging, and personnel presence. However, as noted in the Draft EIR (e.g., page 3.3-90), the Hawthorne Option would introduce a larger permanent visual change due to the elevated guideway in a highly visible corridor, and would therefore result in a higher degree of visual change.

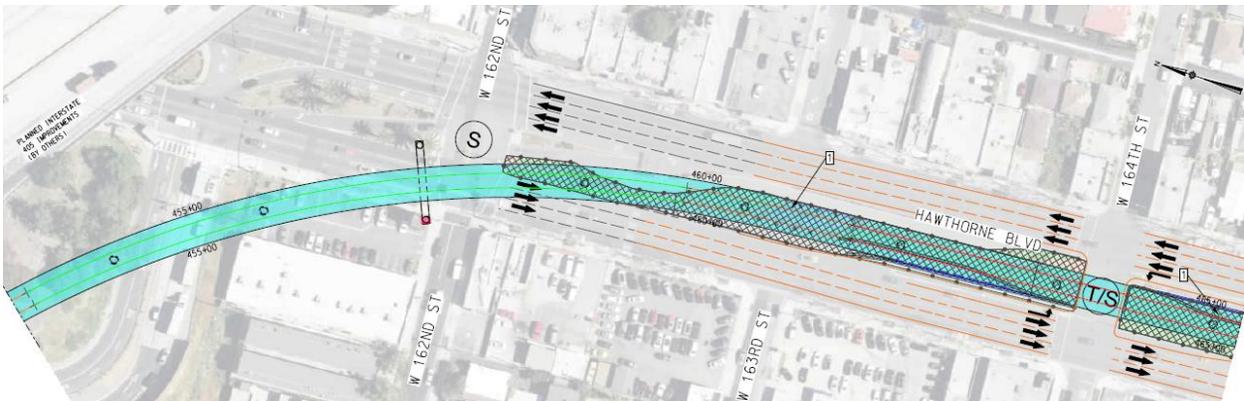
Apart from construction nighttime lighting impacts, the Draft EIR concluded that the impacts of the Metro ROW alignments and Hawthorne Option on aesthetic and visual resources would be less than significant. Mitigation Measure MM-AES-1: Construction Lighting, is provided for all options.



Construction Staging Plan: Stage 1 (Draft EIR Select ACE Drawings, 2023)



Construction Staging Plan: Stage 2 (Draft EIR Select ACE Drawings, 2023)



Construction Staging Plan: Stage 3 (Draft EIR Select ACE Drawings, 2023)

**Construction Access to Properties:** Temporary closures for construction would not fully preclude access to adjacent land use, although the exact nature of the disruption and temporary accommodations to maintain access cannot be known during the EIR phase. In similar past projects, Metro and its contractors have coordinated with local businesses and residents as well as relevant jurisdictions to manage access and the effects of temporary closures and identify reasonable accommodations or alternatives, which could include limiting construction hours, providing alternate routes or temporary easements, or other strategies. These are identified as part of the preliminary engineering work, and updated as necessary prior to the initiation of localized construction activities, in the development and implementation of the Construction Traffic Management Plan (CTMP), which is described as Project Feature PF-T-1: Construction Traffic Management Plan in the Final EIR.

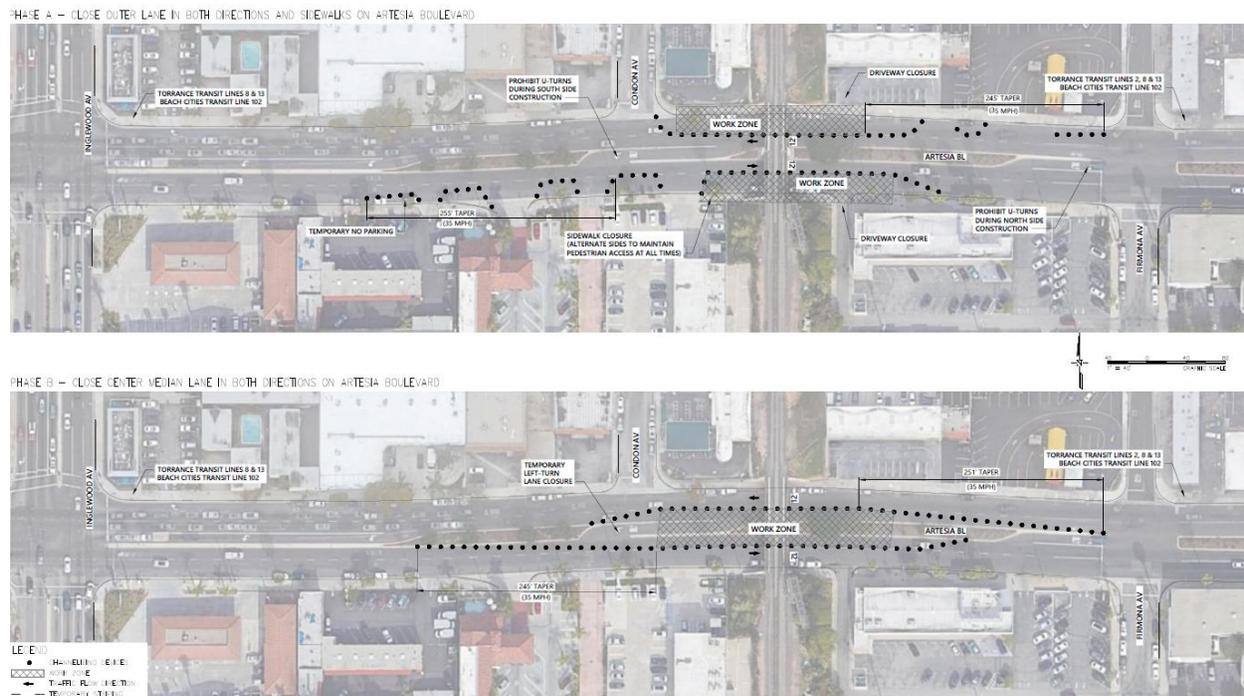
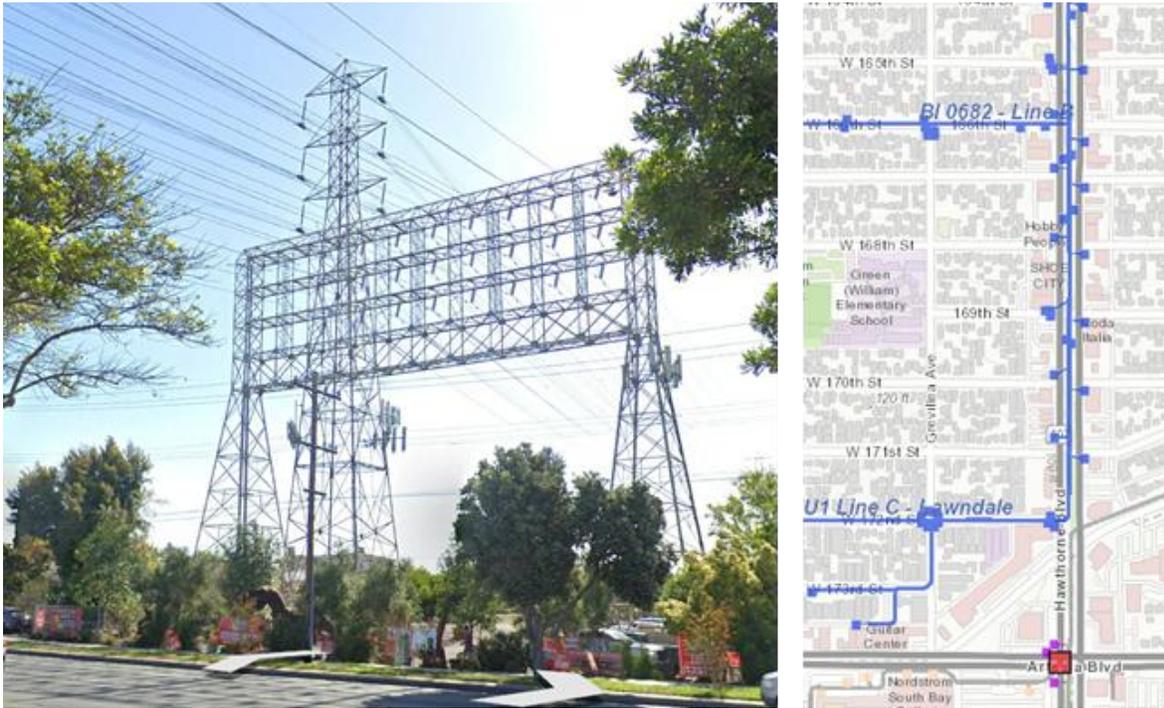


Diagram of Traffic Handling Concept at Artesia Blvd (Draft EIR Select ACE Drawings, 2023)

**Construction Traffic Management Plan:** As is typical for large infrastructure projects, the CTMP would be coordinated with the local jurisdiction, and for certain areas, with Caltrans, to meet the transportation needs of communities and manage any temporary traffic disruptions. Key measures included in the CTMP would ensure access for vehicles, pedestrians, and cyclists, detour routes during road or lane closures, emergency access protocols, and coordination with affected cities and Caltrans. The CTMP would be updated as the project progresses and new information about construction logistics becomes available.

**Construction Impacts on Bus Stops:** There are approximately eight pairs of bus stops located along Hawthorne Boulevard within the area to be directly affected by construction. Because construction would be phased to minimize disruption to Hawthorne Boulevard, not all bus stops would be temporarily closed or relocated simultaneously, but there is the possibility that more than one bus stop on the same side of the road, or on opposite sides in the same roadway segment, could be closed or relocated during the same period. It is probable that each of these bus stops would need at least some period of closure or relocation during construction.

**Utility Relocation:** As noted, major utility relocations would be required to implement the Hawthorne Option, including relocation of a major underground storm drain located beneath Hawthorne Boulevard, which would require lane closures to construct. In addition, the Hawthorne Option would require the high-voltage overhead transmission lines that traverse the corridor to be raised or relocated to meet the required safety clearance between the wires and light rail system. These factors contribute to the Hawthorne Option's estimated construction cost of \$2.96 billion (as estimated in 2022), the highest of the alignment options studied.



*Photo of utility corridor with high voltage transmission lines that cross Hawthorne Blvd (Google street view) and diagram of major storm drain located in center of Hawthorne Blvd, to be relocated for Hawthorne Blvd Option (Metro, 2025)*

**Utility Coordination:** Section 3.11, Utilities and Service Systems, of the Draft EIR, includes details on utility relocations, including those required for the Hawthorne Option. Project Feature PF-US-1: Utility Identification and Coordination (Draft EIR page 3.11-10) requires proper utility identification and coordination prior to construction activities. As per Metro standard practice, the construction contractor would verify the locations of all existing utilities potentially affected by construction and demolition activities through coordination with utility providers for both wet and dry utilities (e.g., water, sewer, gas, electric, and telecommunications). This coordination would include obtaining documentation of existing utility locations and conducting field verification, such as potholing and geotechnical investigations. Based on these investigations, the contractor would coordinate with the respective utility providers to determine the necessary setbacks, protections, or relocations for each utility line, including stabilization measures for high-voltage power lines near the freeway under the Hawthorne Option. This process would ensure that all required utility relocations or protections are fully assessed and implemented, preventing impacts on essential services and infrastructure.

**Geology / Soil Impacts:** The 2023 Geotechnical Data Report, prepared to support the Draft EIR engineering plans, reviewed past geotechnical investigations, including a Caltrans boring log near Hawthorne Boulevard and 166th Street. This historic log indicates the soil types are similar to the soils along the Metro ROW, which are loose to medium sandy materials at upper depths and clayey sands farther down. There is no evidence to suggest that soil conditions along the Hawthorne Option are materially more stable than those along the Metro ROW. Some commenters suggested that operation of the former Red Car along Hawthorne Boulevard demonstrates greater soil stability there. However, the comparison is not apt, as the Red Car was an at-grade system, whereas the Hawthorne Option would be entirely elevated and therefore subject to different structural requirements regardless of underlying geologic conditions. Moreover, soils beneath the Metro ROW have performed without issues under the freight trains, which are considerably heavier than light rail trains.

### Hawthorne Option: Permanent Changes to Roadways, Traffic Delay and Level-of-Service (LOS)

Although Level-of-Service (LOS) is no longer used in CEQA to determine environmental impacts, Metro separately published the 2023 Transportation Detail Report to analyze local traffic conditions. This report describes present traffic conditions, evaluates future conditions with and without the project, and assesses how the alignment options would affect traffic circulation, bus route integration and public on-street parking. These issues were studied to ensure the project design takes into consideration local traffic operations, road safety, and access for emergency services, regardless of CEQA requirements.

Some comments related to the Hawthorne Option raised concerns about intersection operations along the segment of Hawthorne Boulevard between Redondo Beach Boulevard and 182nd Street, where additional traffic signals and roadway modifications are proposed. Primary changes proposed to the streets for the Hawthorne Option include:

- > Modification to left turn lanes on Hawthorne Boulevard from 164th Street through 186th Street to accommodate support columns for the elevated light rail structure.
- > Signalization of the intersection of Hawthorne Boulevard and 164th Street.
- > Installation of a new mid-block crossing approximately 360 feet south of Artesia Blvd to provide access to proposed station.
- > Reduction of the northbound left turn pocket on Hawthorne Boulevard at 177th Street from two turn lanes to one turn lane.
- > Signalization of the intersection of Hawthorne Boulevard and 179th Street.
- > Closure of the median at Hawthorne Boulevard and 180th Street to prevent unsafe left turns, which would permanently detour to 179th Street (northbound) or 182nd Street (southbound) to reverse direction.

All of these Hawthorne Option-related changes to traffic operations at signalized and unsignalized intersections are addressed in the 2023 Transportation Detail Report. That analysis used a detailed transportation microsimulation model to analyze changes to automobile traffic on roadways to provide detailed LOS and vehicle queueing metrics. The 2023 Transportation Detail Report used forecast peak hour traffic volumes, which is customary for traffic studies, and accounted for potential traffic rerouting resulting from the Hawthorne Option's modifications to the median access.

**Complete Streets:** The project would not preclude Caltrans from carrying out the Complete Streets Directive for projects it funds or oversees, including those on Hawthorne Boulevard. The project includes Complete Streets-supportive elements, such as the implementation of new signalized pedestrian crossings that reduce the interval between safe crossings on Hawthorne Boulevard between residential and retail land uses.



Diagram of proposed South Bay Galleria Station along Hawthorne Blvd and pedestrian access (Final EIR, 2025)

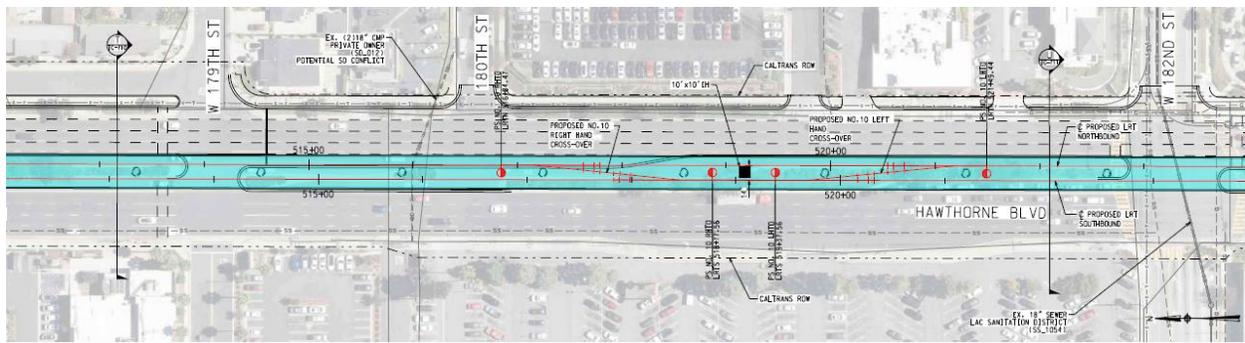
**Mid-Block Crossings:** Both the Draft EIR and the 2023 Transportation Detail Report, which evaluates non-CEQA issues and was published concurrently with the Draft EIR, include consideration of the mid-block pedestrian crossing at the south end of the South Bay Galleria Station (Hawthorne Option). The mid-block pedestrian crossing is intended to provide safe, convenient pedestrian access to the station, particularly for residents approaching from the south and the neighborhood east of Hawthorne Boulevard, thereby supporting the project's goal of providing a viable alternative to continual growth in traffic volumes.

The project seeks to reduce the risk of unsafe crossing behavior by providing safe crossing locations as close to the station as possible. Additional signalized crossings, as proposed by the Hawthorne Option, would help reduce the distance between safe pedestrian crossings on Hawthorne Boulevard between Artesia Boulevard and 182nd Street, better supporting pedestrian access and redistributing some vehicular traffic. The proposed crossing would be signalized and would be located approximately 360 feet south of the existing signal at Hawthorne Boulevard and Artesia Boulevard. Without a signalized crossing at the south end of the station, transit passengers approaching the station from the south (near 177th Street) would be more likely to attempt to unsafely cross Hawthorne Boulevard because of the long distance (over 1,000 feet) between signalized crossings at Artesia Boulevard and 177th Street.

Under existing conditions, there are approximately 1,000 feet between existing signals. To avoid these longer walks, pedestrians might choose to cross at unsignalized locations, which is allowed under California Vehicle Code Section 275, but increases the risk of vehicle-pedestrian collisions. The additional signalized crossings proposed by the Hawthorne Option would improve overall pedestrian safety by enhancing designated crossing facilities and reducing the risk of collisions.

This is also supported by the analysis of vehicle-pedestrian collisions along the corridor, as shown in Figure 3.1-14 of the Draft EIR. For instance, in the segment of Hawthorne Boulevard between approximately 162nd Street and Artesia Boulevard (which has more crossings between 400 to 600 feet apart), there were far fewer collisions total than in a comparable distance from Artesia Boulevard south to 182nd Street (which has fewer crossings).





*Hawthorne Blvd & 179th, 180th, 182nd Streets (Draft EIR Select ACE Drawings, 2023)*

**Potential Delays to Vehicles:** The analysis concluded that, at major intersections, average delay would generally increase compared to the 2042 No Project scenario. At some intersections, vehicle queues may also increase. The location of the most substantial increase was the northbound left-turn queue at Hawthorne Boulevard and 179th Street. The increase in queues is caused by the closure of the median at 180th Street, which causes some northbound turn volumes to divert to 179th Street, which would become a signalized intersection. Similarly, queues would increase at the southbound left turn lane at 182nd Street as a result of the 180th Street median closure. At most other intersections, vehicle queues would either increase or decrease by a proportionate number of vehicles, depending on where traffic shifts occur.

Left-turn queues are managed through a combination of available storage space (such as lane and turn pocket lengths) and traffic signal timing. Signal timing and phasing could be adjusted over time in response to evolving traffic patterns, helping to ensure that left-turn queues do not exceed the available storage space between signal cycles. This operational flexibility allows for efficient traffic management and minimizes potential congestion at intersections.

**Parking Loss:** The 2023 Transportation Detail Report identifies approximately 20 median parking spaces that would be lost to accommodate the columns for the elevated light rail structure within the City of Lawndale. Within the City of Torrance, the Hawthorne Option would require widening a segment of Hawthorne Boulevard between 175th Street and 179th Street (and narrowing the parallel frontage road) which would result in the loss of approximately 12 overnight parking spaces. These changes are limited in scope and are necessary to accommodate the elevated structure within the existing public right-of-way and avoid acquisition of private properties.

**Landscaping:** Metro would coordinate with Caltrans as needed for the removal and replacement of any trees on Caltrans facilities required by the project in accordance with applicable requirements from the Office of Stormwater and Landscape Architecture.

Pursuant to Metro's Tree Policy (2022b), trees would be preserved where feasible and replaced at a ratio of 2:1 (or 4:1 if the tree is considered a heritage tree). Additionally, new landscaping, shade trees, and other design elements would be introduced to enhance the natural character of the corridor and support a unified, visually appealing environment. Metro's Tree Policy has been incorporated into this Final EIR as Project Feature PF-BIO-1. Metro Tree Policy.

## Comparison of Aesthetic Considerations: Hawthorne Option vs. Metro ROW Alignments

**Proposed Design of Elevated Light Rail along Hawthorne Boulevard:** The height and width of the elevated structure would vary along the alignment, but the elevated guideway would generally be about 30 feet high, and the Overhead Contact System (OCS) on top would be about 15 feet tall. The depth of elevated structure piles could range between 90 to 150 feet, depending on existing geotechnical and groundwater conditions. The exact depths of any structural piles required for the project would be determined during preliminary design, when geotechnical investigations would be completed.

As described in Section 3.3, Aesthetics of the Draft EIR, the project corridor is already highly urbanized, with a mix of residential, industrial, and commercial land uses, as well as the existing freight rail infrastructure. There are no designated scenic vistas or notable natural landscapes within the project's vicinity. Due to existing development and infrastructure, the existing visual quality in the area is generally low for vividness, intactness, and unity.

As part of this analysis, the Draft EIR considered changes associated with the elevated structure, including its scale, form, and relationship to adjacent land uses. The Hawthorne Option would not create a "tunnel-like" feeling for motorists, as the elevated structure would be located within the median, and motorists would primarily be driving parallel to the guideway, rather than underneath it, except when making a left turn or crossing through an intersection. The structure would span intersections and would not fully enclose the roadway. As a result, the Hawthorne Option would not create the physical characteristics of a tunnel, or result in a substantial degradation of existing visual quality.

The elevated guideway would run parallel to the Interstate-405 Freeway, and it would generally have a similar scale and massing to surrounding structures. In addition, the components of the Hawthorne Option would be designed to comply with applicable design standards and would incorporate architectural treatments and landscaping to provide a unified design. Furthermore, it would not block long range views of any prominent visual features.

Moreover, the project is not anticipated to conflict with any local zoning or other policies governing scenic quality. Metro's commitment to thoughtful, high-quality design would help ensure that the project remains visually compatible with surrounding neighborhoods.

In summary, while the project would introduce new transit infrastructure, the visual impact analysis confirms that these changes would not degrade the existing visual character or quality of the community.



Figure 3.3-73. KOP 15 – Simulation View, looking north from Grevillea Avenue towards I-405 (Draft EIR, 2023)



Figure 3.3-77. KOP 19 – Simulation View, looking northwest from 166th Street (Draft EIR, 2023)

**Shadows:** As stated on page 3.3-53 of the Draft EIR, shadow-sensitive uses generally include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; plant nurseries; and existing solar collectors/panels. Shadows tend to be cast in a clockwise direction from west/northwest to east/northeast throughout the day across all seasons.

For the northern portion of the Hawthorne Option, where some residential properties are located to the southwest of the alignment and the I-405 is positioned to the northeast, the elevated rail structure and proposed plexiglass soundwalls would not substantially cast shadows over residential properties due to the standard shadow patterns, as discussed in Section 3.3-4.4.2 of the Draft EIR. Shadows from the elevated guideway, including soundwalls, would instead primarily fall onto the I-405 corridor to the northeast. Additionally, the elevated guideway's location within the median of Hawthorne Boulevard and the width of the roadway would prevent significant shading of residential areas to the east. Overall, the proposed Hawthorne Option would not result in substantial shadow impacts on residential properties.



Figure 3.3-78. KOP 20 – Simulation View, looking north/northwest from Redondo Beach Blvd (Draft EIR, 2023)



Figure 3.3-81. KOP 22B– Simulation View, looking east from Hawthorne Blvd near 178th Street (Draft EIR, 2023)

**Roadway/Safety Signage:** Metro would follow all applicable safety laws, and structures would not block roadway signage or safety-related signage. The KOP simulations illustrate the general visual changes that would be expected to occur, and the exact location of columns and any required relocated signage would be refined during final design, with coordination with all applicable jurisdictional agencies to ensure that street signs, safety signage, and plaza signage remain visible and compliant with applicable standards.

## Methodology for Construction Cost Estimates

**Cost Estimates:** In 2022, Metro prepared cost estimates and published the C Line (Green) Extension to Torrance Cost Estimates Summary concurrent with the Draft EIR in January 2023. As stated, Metro follows the Federal Transit Administration (FTA)'s guidelines for cost estimating, and the estimate underwent peer review prior to publication. The cost estimate is based on the advanced conceptual design available for the Draft EIR, and it includes the construction costs (which were prepared in 2022 dollars), an escalation factor to account for future inflation and market fluctuations, and a contingency to accommodate potential known and unknown risks that could increase costs during construction. In accordance with FTA guidelines, the cost estimates include multiple categories such as track guideway, stations, sitework, utility relocations, potential environmental investigations, right-of-way acquisitions, and systems. The contingency is approximately 40% based on the current level of design, in accordance with FTA guidelines. As the project design advances, the contingency would be adjusted.

Metro has refined cost estimates, posted to the project website, to share with the Metro Board as part of the consideration to approve the project and certify the Final EIR.

## Selection of the Hybrid Alternative as the LPA

Based on this extensive public engagement and input, Metro staff recommended that the Metro Board of Directors select the 170th/182nd Grade-Separated Light Rail Transit Alternative, also referred to as the “Hybrid Alternative,” as the LPA. At the May 23, 2024 Regular Board Meeting, the Metro Board adopted staff’s recommendation and selected the Hybrid Alternative as the LPA. Being identified as the LPA means that the design of the Hybrid Alternative has been refined and advanced in the Final EIR. However, the other options and alternatives studied in the Draft EIR remain under consideration, and the final decision on the project will not be made until after the Final EIR is issued and the Metro Board holds a final public meeting on whether to certify the Final EIR and approve the project, including any of the options or alternatives evaluated in the EIR.

The LPA addresses many of the public’s concerns by eliminating the two at-grade light rail crossings by placing the light rail tracks below grade at 170th Street and 182nd Street. This, in turn, eliminates the Elevated/At-Grade Alignment’s potentially significant and unavoidable noise impact caused by light rail crossing gate bells. It also avoids any potential for delays to emergency responders and prevents conflicts between light rail trains and pedestrians and cyclists, including along school routes. The LPA also avoids the construction-related significant impact to air quality generated by the Trench Option, which, if constructed, would require extensive excavation and truck hauling to remove soils. For the LPA, trench excavation would be limited to the two areas where short trenches would be constructed to grade separate 170th and 182nd Street. Relative to the Elevated/At-Grade Alignment, the LPA also eliminates the need to build a new freight bridge over Grant Avenue and avoids shifting the existing freight track closer to homes south of Artesia Boulevard, including Breakwater Village.

Similar to the Elevated/At-Grade Alignment and the Trench Option, construction of the LPA would be largely confined to the Metro ROW, which minimizes the real estate acquisitions needed to construct and operate the project north of 190th Street associated with the Hawthorne Option. The LPA identifies up to four non-residential parcels as permanent full acquisitions to locate Traction Power Substations (TPSS). Like the other alignments studied in the Draft EIR, the LPA is designed to avoid displacement of residents. The LPA would result in a construction duration approximately one year longer compared to the Elevated/At-Grade Alignment, but the overall construction duration would be within the five-to-seven year construction schedule range described in the Draft EIR.

The LPA is projected to attract about 4,690 new riders and 11,500 total daily project trips by 2042 (which also applies to the Elevated/At-Grade Alignment and Trench Option). Further, the LPA’s projected cost of \$2.23 billion (as estimated in 2022) is significantly lower (\$730 million less) than that of the Hawthorne Option. For more information, see MR-21: Cost Estimates and Schedule.

Metro recognizes the permanent nature of this project and its potential to shape the community for generations. The Metro Board will continue to carefully weigh all relevant factors as they review the Final EIR and make a final decision on whether to certify the Final EIR and approve one of the alignment options under consideration.

## References

2023 Draft EIR & Advanced Conceptual Engineering Plans (2023), Appendix B of Draft EIR

2023 Transportation Detail Report

2023 Real Estate Acquisitions Report

2023 Ridership Report

2023 Cost Estimate Summary

2023 Urban Design Study

May 2024 Metro Board Report at <https://boardagendas.metro.net/board-report/2024-0272/>

2025 Final EIR

2025 Real Estate Acquisitions Report