



Board Report

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**PLANNING AND PROGRAMMING COMMITTEE
SEPTEMBER 20, 2023
EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 21, 2023**

SUBJECT: C LINE EXTENSION TO TORRANCE UPDATE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the Metro C (Green) Line Extension to Torrance Project.

ISSUE

This report provides an update on the Metro C Line Extension to Torrance Project (Project), summarizing regional and local benefits, results from a recent community poll, public comments on the Draft Environmental Impact Report (EIR), and a technical comparison of the Proposed Project, Options, and Alternatives to the Project studied through the environmental process under the California Environmental Quality Act (CEQA).

BACKGROUND

The Metro C Line Extension to Torrance would provide rapid, high-capacity transit connecting the South Bay, a major jobs center, with the rest of LA County's growing Metro rail network. The Proposed Project would extend light rail 4.5 miles south from the Redondo Beach (Marine) Station through the cities of Lawndale, Redondo Beach, and Torrance, terminating at the new Mary K. Giordano Regional Transit Center (Torrance Transit Center). By linking the Metro rail system with two new bus transit centers in the cities of Redondo Beach and Torrance, the Project would extend the reach of transit to the greater South Bay region. The Project has funding from Measure R (\$272M in 2008), Measure M (\$619M in 2016), and a grant (\$231M in 2018) from the California State Transportation Agency (CalSTA).

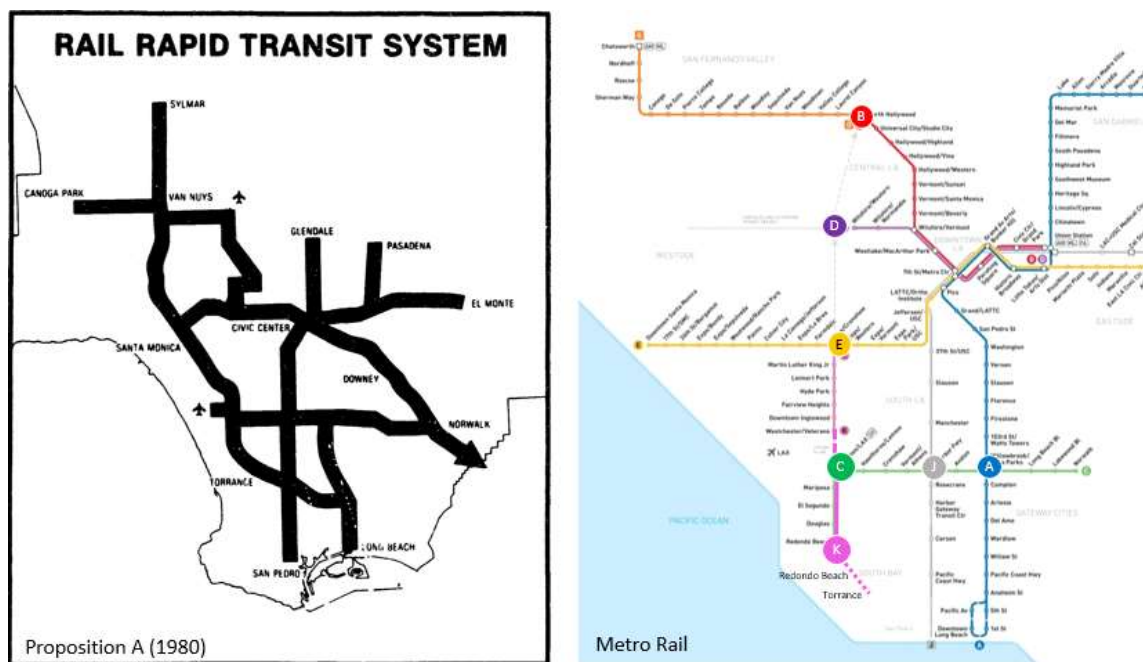
The first concept of a rail connection to the South Bay was envisioned as part of the regional rail network in Proposition A (1980) with the goal of connecting LA County via rapid rail service. In 1993, Metro purchased the 26-mile Harbor Subdivision freight corridor from the BNSF Railway (BNSF) predecessor with the goal of providing rail service between Downtown Los Angeles and the South Bay and Ports of Los Angeles and Long Beach. In 2009, Metro published the Harbor Subdivision Alternative Analysis (AA) Study, which evaluated various travel markets, modes, and routes to

connect Downtown Los Angeles with the South Bay and Ports via rapid transit. The AA Study prioritized a segment of the Harbor Subdivision corridor between Redondo Beach and Torrance with light rail as the preferred mode. Since 2009, Metro has prepared several transportation studies to validate and advance the Project.

Below is a brief timeline of the studies, funding awarded, and Board actions:

- 2008: Measure R approved by voters, allocated \$272M to the Project.
- 2010-2012: Environmental study started for the Project, then paused due to funding uncertainty after Measure J failed.
- 2016: Measure M approved by voters, allocated \$619M to Project, identified opening year as 2030-2033.
- 2017-2018: Metro reinitiated planning with Supplemental Alternatives Analysis (SAA) Study and evaluated four light rail alignments for the Project.
- 2018: Metro Board approved two alignments from the SAA Study (Metro ROW and Hawthorne) to move into environmental review and removed proposed stations in the City of Lawndale from further study based on the City's request.
- 2018: Project awarded \$231M TIRCP grant from Cal-STA to broaden and modernize transit connectivity in LA County.
- 2019: Metro Board designated the Project as one of four "pillar projects," reflecting the priority to connect South Bay to LA County.
- 2021: Metro started public scoping for environmental study under CEQA.
- 2023: Metro published Draft EIR and solicited public comments.

On a parallel track, the cities of Redondo Beach and Torrance invested in real estate adjacent to the Metro-owned Harbor Subdivision (Metro ROW) to plan new regional bus transit centers with the assumption that the bus centers would connect to future rail stations as part of the proposed light rail extension. After many years of planning and design, the Redondo Beach Transit Center and Torrance Transit Center opened this spring (2023), both partially funded by Metro grants. Both transit centers are adjacent to the proposed rail stations along the Metro ROW. The Redondo Beach Transit Center is on the west side of planned redevelopment for the South Bay Galleria to allow for easy transit access to a planned hotel, housing, and commercial development. Similarly, the City of Torrance purchased land with plans for transit-oriented development adjacent to the new bus center and planned terminus rail station.



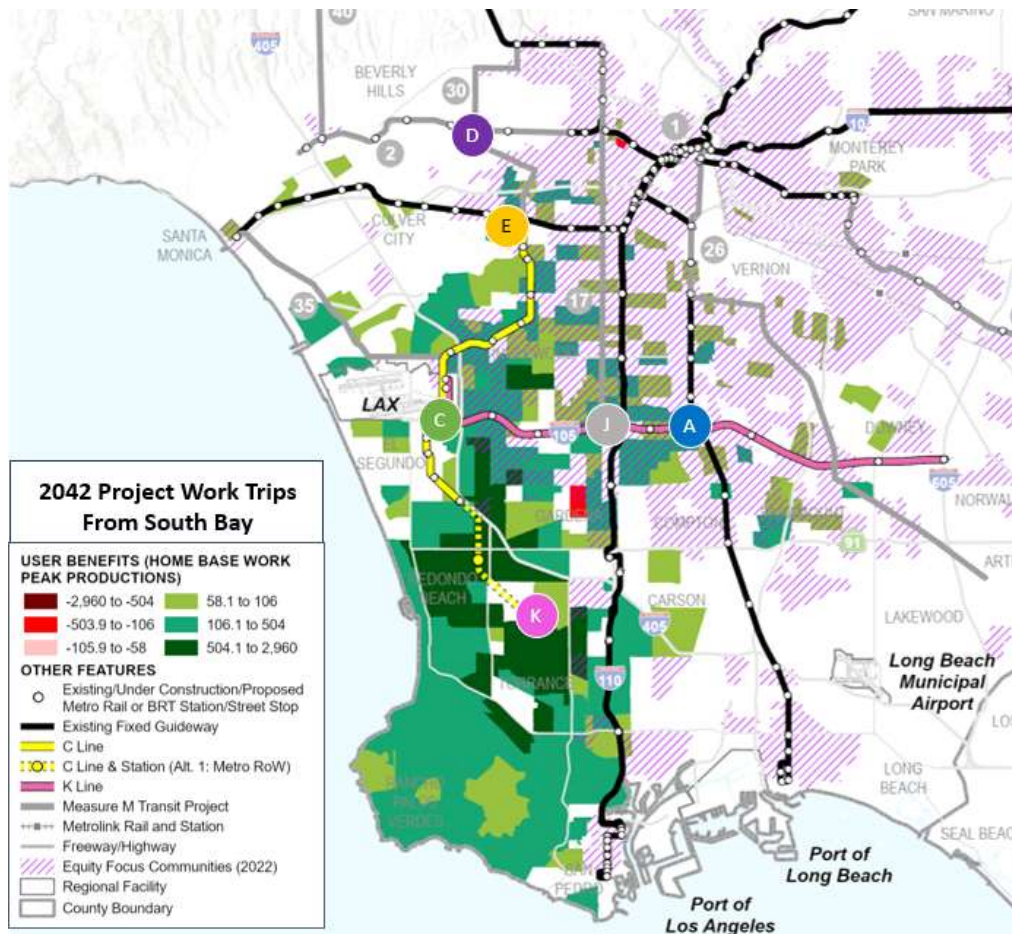
DISCUSSION

The South Bay is a significant jobs center, particularly in the industrial and technology sectors. Like much of LA County, the subregion suffers from heavy vehicle congestion, a constrained housing supply, and limited transit options. Data from the Southern California Association of Governments (SCAG) anticipates the existing jobs/housing imbalance to worsen in the coming decades, with employment growing twice as fast as the population in the South Bay. By providing a fast, frequent transit option to the South Bay, by 2042, the Project is expected to:

- Expand access and improve mobility with between 11,570 and 15,648 daily project trips,
- Reduce 19.5 million vehicle miles traveled (VMT) per year, and
- Reduce air pollution and greenhouse gas (GHG) emissions, which contribute to climate change, by shifting drivers to transit with 2,369 metric tons of carbon dioxide equivalent (MTCO₂e) saved per year.

With the recent Metro Board-adopted K Line operating plan, the Project would serve as a southern extension of the K Line, providing travelers a one-seat ride from the South Bay to Los Angeles International Airport (LAX), Inglewood, and the Metro E (Expo) Line. The light rail extension would link many Equity Focus Communities (EFCs) to employment centers along the C and K Lines while providing far-reaching benefits for people traveling between the South Bay and Central LA. In addition to expanding access, the Project would provide significant travel time savings between the South Bay and greater LA. As part of a separate Measure M project, there are plans to extend the K-Line further north to the Metro D (Purple) and B (Red) Line, providing access further north to the San Fernando Valley via the Metro G (Orange) Line. When fully built out, the K Line would connect to the

Metro C, E, D, and B Lines, making it one of the most connected rail lines in the Metro system, providing an attractive alternative to driving along congested streets and the I-405. The existing C and K Lines run two-car light rail trains. The Project is designed with longer station platforms and power to serve three-car trains and five-minute service during peak periods in the future to accommodate anticipated growth in ridership with the northern K Line extension.



Source: Metro

	Travel Time From Torrance Transit Center via Project (Light Rail in 2042)	Travel Time From Torrance Transit Center by Vehicle (Afternoon Peak in 2023)
LAX (AMC/96 th St)	19 minutes	30-66 minutes
Downtown Inglewood	23.5 minutes	25-55 minutes
Metro E Line (Expo/Crenshaw)	34.5 minutes	30-66 minutes
Downtown LA (7 th /Metro Center)	58.5 minutes	40-85 minutes
Downtown Santa Monica	63.5 minutes	45-110 minutes

Source: AECOM, STV, 2020, Travel time by vehicle-based on Google maps driving times in 2023.

Draft EIR & Technical Studies

In early 2021, Metro started the environmental review process for the Proposed Project and held public scoping meetings. Metro published the Draft EIR in January and held five public hearings during the 61-day comment period. The Draft EIR outlines the Project objectives, describes the Project design, operations, and maintenance, discloses potential environmental impacts in the short-term (construction) and long-term (operations), and identifies mitigation measures to reduce or eliminate potential environmental impacts from the Project.

The Draft EIR evaluates three light rail alignments to connect the existing C Line terminus at the Redondo Beach (Marine) Station southeast to the Torrance Transit Center:

- Metro ROW (Elevated/At-Grade) travels on Metro ROW
- Trench Option travels on Metro ROW below street level and open to the sky
- Hawthorne Option travels along a section of the I-405 and Hawthorne Blvd

South of 190th Street, all three alignments are the same and travel along the Metro ROW to end at the Torrance Transit Center.

In addition to the Draft EIR, Metro prepared several technical studies and reports to further analyze the Project and address areas of public interest not evaluated under CEQA. These include advanced conceptual engineering plans and related studies such as geotechnical, hydrogeology, drainage, traffic and parking, ridership, cost, real estate acquisitions, urban design, purpose and need, and alternatives considered and dismissed over the years.

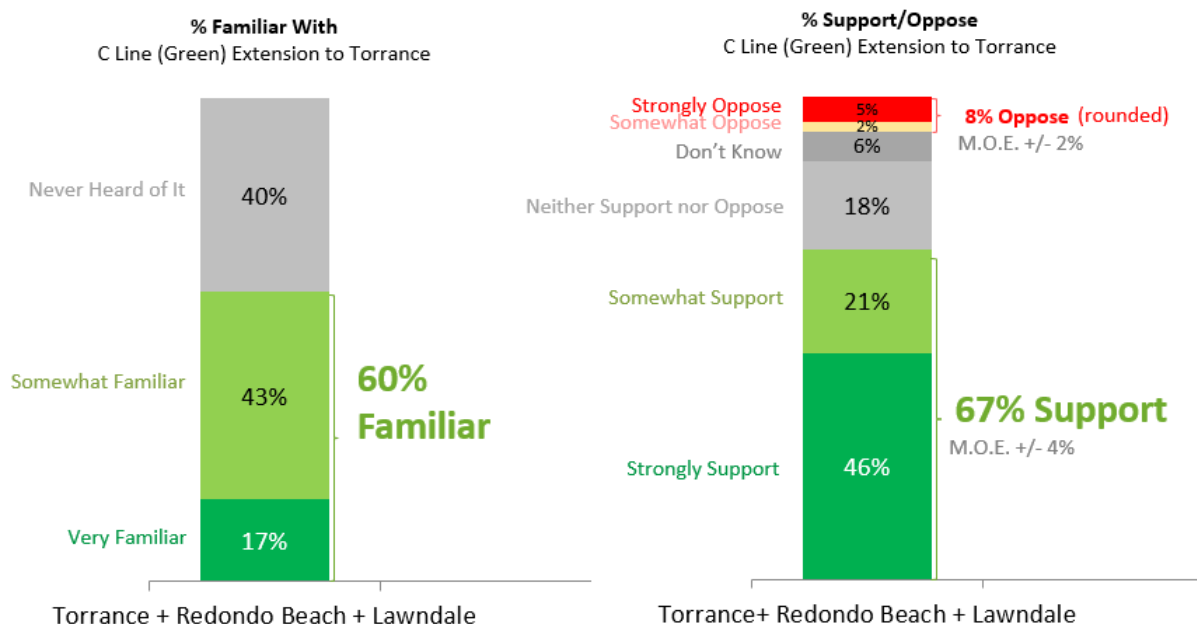
Community Engagement & Input

Between 2021 - 2023, the project team led extensive outreach to engage the community virtually and in-person when it was safe to do so during the pandemic. Metro expanded the radius of notifications from 750 feet to a 1-mile area around the corridor, which includes over 47,000 addresses. Metro held virtual walking tours and surveys, in-person walking tours, open houses, and public hearings to invite the public to provide feedback and hosted dozens of targeted stakeholder briefings. Over 1,800 individuals attended multiple rounds of public meetings. To reach transit-dependent riders and groups that do not typically attend public meetings, Metro held pop-up booths at local events, interviewed over 100 transit riders at busy bus stops in the area, and reached out to over 500 businesses through door-to-door outreach. All outreach materials were prepared in English and Spanish, and enhanced outreach tools were used during COVID to engage through non-traditional means. Since early 2021, Metro has tracked over 23,000 project video views and over 11,000 views of project websites.

Over the course of public engagement, Metro received input from the community that coalesced around the following concerns: noise and vibration, construction disruptions, public safety, freight safety, effects to properties and property values, changes to neighborhood character, parking and traffic, access to stations, connections to bus centers, ridership, and utility relocations and soil conditions. Summaries of public outreach events are published on the project website at www.metro.net/clineext.

Public Support for Project

In Spring 2023, Metro worked with a market research firm to survey residents on their level of awareness and support for the Project. The purpose of the poll was to reach individuals who are less likely or unable to attend public meetings and comment on environmental documents to understand their perceptions of the Project. The poll surveyed 670 residents through randomized phone calls (landline and cell phones) across the three project cities of Lawndale, Redondo Beach, and Torrance. The survey found that 60% of residents are familiar with the Project and 67% are supportive of the Project. On average, 8% of residents across the three cities oppose the Project and 24% had no opinion.



M.O.E indicates the margin of error.

Draft EIR Comments

Between January and March 2023, Metro collected approximately 2,200 comments on the Draft EIR over the 61-day public comment period. A small percentage (~13%) of the comments address specific environmental concerns or impacts within the Draft EIR. The vast majority (1,850 comments) focused on alignment preferences. Almost two-thirds of alignment comments (66%) were in support of the Metro ROW Elevated At-Grade Alignment.

Support for Draft EIR Alignment/Alternative	# Comments	% of Total
Metro ROW Elevated/At-Grade	1,228	66%

Hawthorne Option	355	19%
Trench Option	135	7%
High-Frequency Bus Alternative	39	<1%
ROW Hybrid Alternative	3	<1%
No Project Alternative	119	6%

Source: Metro, The Robert Group

Both the poll and the Draft EIR comments show high levels of community support for the Project and low levels of opposition, although some vocal opponents who live adjacent to the Metro ROW have attended public meetings regularly.

Local Agency Support

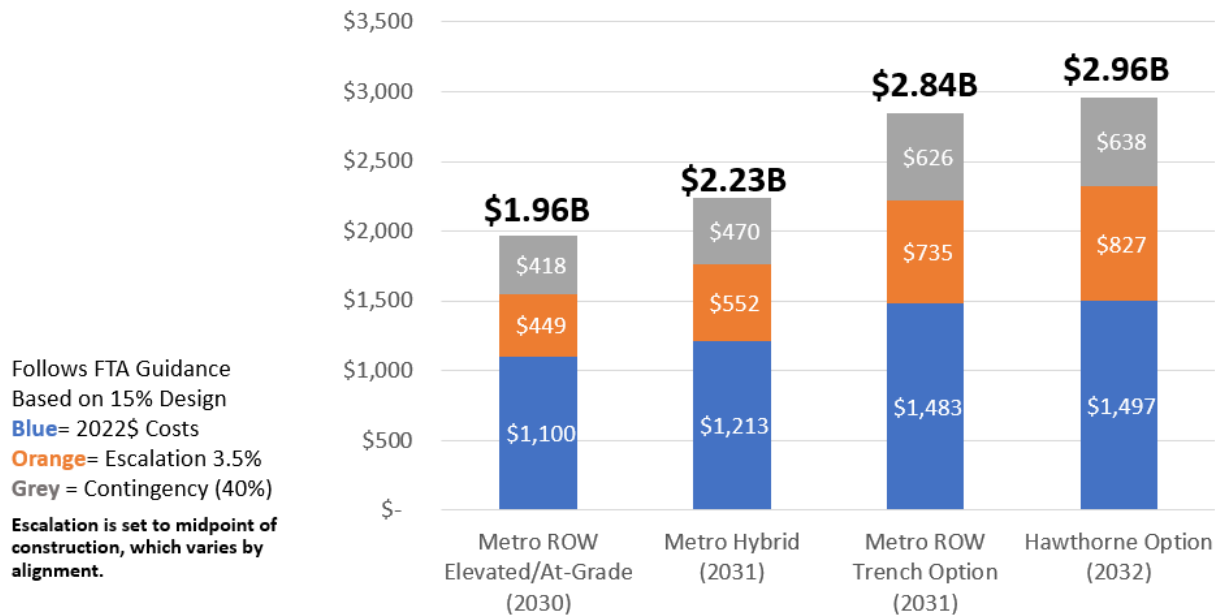
During the Draft EIR comment period, all three cities in the Project area provided comment letters. The City of Lawndale noted opposition to the Project in a letter (March). However, in May, the City Council voted in a closed session to change its position and support the Hawthorne Option. The City of Redondo Beach expressed support for the Hawthorne Option to avoid impacts on residential neighborhoods along the Metro ROW. The City of Torrance indicated its support for the Proposed Project (Metro ROW Elevated/At-Grade Alignment) as it is the most cost effective and fastest to complete. Caltrans submitted a letter supporting the Project and noted that it would require encroachment permit approvals for any work on Caltrans ROW. The South Bay Council of Governments (COG) has not yet taken a position on the Project.

Cost Estimates & Construction Schedule

With support from the Metro Early Intervention Team (EIT) and Metro Cost Estimating Department, Metro worked with two firms to prepare and peer review construction cost estimates for the light rail alignments, following Federal Transit Administration (FTA) guidance for transit projects based on the level of design. The cost estimates include three key components:

- 1) construction costs in 2022\$ including labor and materials,
- 2) escalation (3.5% annual assumed), and
- 3) contingency to account for known and unknown project risks.

Escalation is tied to the midpoint of construction, based on a preliminary construction schedule (see below), which includes a buffer (25%) between the start of the final design and the start of operations, per FTA guidance. The cost estimates include approximately 30% allocated and 10% unallocated (40% total) contingencies per FTA, given that the project is at 15% design. As the project advances, the cost estimates will be updated, and the recommended contingencies will be revised based on more detailed engineering and risk assessment.



Project Schedule*	Measure M (2030-2033)													
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Metro ROW (Elevated/At-Grade)	CEQA		Design/RE Contract Award		BNSF & Utility Relocation		Construction							Sep-33
Metro ROW (Hybrid) Alternative	CEQA		Design/BID/RE Contract Award		BNSF & Utility Relocation		Construction							Dec-34
Trench Option	CEQA		Design/RE Contract Award		BNSF & Utility Relocation		Construction							Jan-36
Hawthorne Option	CEQA		Caltrans PA&ED		Design/RE Contract Award		BNSF & Utility Relocation		Construction					Sep-35
Hawthorne Option	CEQA		Caltrans PA&ED		Design/RE Contract Award		BNSF & Utility Relocation		Construction					Sep-35
High Frequency Bus Alternative**	CEQA		Design/RE Contract Award				Construction/ Vehicle Procurement							

*Rail alignments include 25% construction contingency in schedule between start of Final Design and start of Operations per FTA.

**HFB Alternative estimate is high level and less detailed than rail estimates

Source: Metro,

STV, and Jacobs

Abbreviations: CEQA: California Environmental Quality Act; BID: Bidding process for contract; RE: Real Estate; PA&ED: Project Approval and Environmental Document

Project Funding

The Project has funding from local sources, including Measure R, Measure M, a TIRCP grant, and 3% local contributions. While Measure M funds escalate over time, Measure R and the TIRCP grant do not. Metro is developing a funding and project sequencing plan to address the funding gap.

Funding Sources	Funding Amount (Millions)	Estimate in 2031\$ (Millions)
Measure R (2008)	\$272	\$272
Measure M (2015)	\$619	\$993*
TIRCP Grant (2018)	\$231	\$231
3% Local Match Requirement <i>Current estimate is based on 15% design for Metro ROW Elevated/At-Grade. Final estimate to be prepared at 30% design based on LPA.</i>	\$59	\$59
Total	\$1.12B	\$1.55B*

*3% annual escalation used for calculation. Actual funding amount for Measure M will depend on when Measure M is expended and the actual increase in sales tax.

Project Implementation Approach

Given the funding gap, which ranges from approximately \$410 million (Metro ROW Elevated/At-Grade) to \$1.55 billion (Hawthorne Option), Metro is exploring a sequenced project implementation approach. This may, for example, include relocating utilities and freight track as the first sequence, followed by a light rail contract to construct stations, tracks, and related infrastructure and equipment. A sequenced approach would allow Metro to move the project forward to meet Measure M commitments and reduce construction risks for the light rail contractor while Metro pursues additional funding to complete the Project.

Summary of Draft EIR Alignments & Alternatives Studied

The tradeoffs between the alignments and alternatives studied in the Draft EIR are summarized below. Staff will present a recommendation to the Metro Board to consider in October for selecting a Locally Preferred Alternative.

Metro ROW (Elevated/At-Grade): would travel along the Metro ROW for the entire 4.5-mile length and two new stations would be constructed adjacent to the Redondo Beach Transit Center and Torrance Transit Center for convenient transfers between the bus and rail networks. The alignment is elevated between Inglewood Ave and 162nd Street to avoid major traffic impacts and street closures, per Metro’s Grade Separation Policy. South of 162nd Street, the alignment travels at street level (at-grade) within the ROW. Where there is enough room in the Metro ROW, Metro would add new three new neighborhood walking paths (one in each city).

Two at-grade light rail crossings are proposed at 170th and 182nd Street, which would include gates, bells, and other safety measures. The presence of the light rail bells results in a significant and unavoidable long-term noise impact on residential properties near 170th Street. In other areas, Metro can mitigate light rail noise impacts through sound walls, special trackwork, and other design tools along the corridor.

Existing freight tracks would be shifted in locations and rebuilt at-grade as they are today within the Metro ROW alongside new light rail tracks. Metro would design and install enhanced safety

equipment and treatments at all freight crossings to be “quiet zone ready” per the Federal Railroad Administration (FRA). A quiet zone corridor would mitigate freight noise impacts by eliminating the need for freight trains to blow their horns along the corridor, which would significantly reduce noise in residential neighborhoods. Metro would support the local cities in the application process for a quiet zone corridor in coordination with California Public Utilities Commission (CPUC) and FRA. The nature of the shared freight and light rail corridor, limited freight service, and proximity to homes make this corridor a good candidate for a quiet zone. The Metro ROW Alignment has the shortest construction period of the rail alignments studied. No residential properties would need to be acquired to construct the Project. The Metro ROW has the lowest construction cost of the rail alignments studied.

Topic Area	Metro ROW Elevated/At-Grade Alignment
Significant & Unavoidable Environmental Impacts	Construction (Short-term): Noise and Vibration Operation (Long-term): Noise impact at 170 th Street due to light rail bells
Other Environmental Concerns	Delays to emergency responders at 182 nd Street Light rail crossings near schools at 170 th and 182 nd Street Freight track shifted closer to a senior living community (Breakwater Village) near Grant Ave
Freight Improvements	Quiet zone-ready improvements at eight (8) freight crossings and upgraded trackwork to reduce noise/vibration along the corridor and enhance safety
Ridership & Access	Two rail stations with direct connections to two bus centers New Daily Riders: 4,694; Daily Project Trips: 11,579
Real Estate Needs & Construction Staging	Limited acquisitions north of 190 th Street Majority of construction would occur on Metro-owned land No residential properties would be acquired
Traffic & Parking	No changes to travel lanes or parking
Construction Cost & Timeframe	\$1.98 Billion (2030\$), Opening Year 2033

Trench Option: would travel along the Metro ROW for its entirety but would be constructed in a recessed concrete trench (open to the sky) for 1.8-miles of the alignment. Existing freight tracks would remain at-grade and be shifted and rebuilt alongside the light rail above the trench. The Trench Option would lessen light rail noise impacts but would still require sound walls to mitigate noise to a less than significant level, like the Metro ROW Elevated/At-Grade Alignment. Freight noise would be mitigated through “quiet zone ready” improvements. The Trench Option fully grade separates light rail from streets with eight under-crossings. This avoids significant long-term noise impacts to residential properties near 170th Street, eliminates delays to emergency responders at 182nd Street, and avoids shifting freight closer to Breakwater Village, a senior living community adjacent to the ROW between Artesia Blvd and Grant Ave.

Due to extensive excavation, the Trench Option would result in a significant and unavoidable air

quality impact during construction. To avoid major underground utilities that cannot be relocated, the Trench Option would require deep excavation (between 35-45 feet below ground) in the northern section of Lawndale. This area has a high-water table requiring specialized construction techniques and the installation and operation of permanent sump pumps. Excavation near residential properties while maintaining freight operations would be a slow and complex construction process. The Trench Option has the longest construction schedule and second highest cost.

Topic Area	Trench Option
Significant & Unavoidable Environmental Impacts	Construction (Short-term): Noise & Vibration; Air quality due to extensive excavation and truck hauling trips Operation (Long-term): Less than significant after mitigation
Other Environmental Concerns	Deep excavation (35-45 feet) to avoid major storm drain and other utilities High water table requires sump pump Lengthy construction and major excavation adjacent to homes and freight
Freight Improvements	Quiet zone ready improvements at eight freight crossings and upgraded trackwork to reduce noise/vibration along corridor and enhance safety
Ridership & Access	Two rail stations with direct connections to two bus centers New Daily riders: 4,694; Daily project trips: 11,579
Real Estate Needs & Construction Staging	Majority of construction would occur on Metro-owned land No residential properties would be acquired
Traffic & Parking	No changes to travel lanes or parking
Construction Cost & Timeframe	\$2.84B (2031\$), Opening Year 2036

Hawthorne Option: travels along the western embankment of I-405 before turning onto Hawthorne Blvd and traveling in the center of the street. As part of the technical analysis and design work to support the Draft EIR, the Hawthorne Option was revised to be fully elevated based on engineering and safety analysis. A station would be located near the South Bay Galleria south of Artesia Blvd (instead of the Redondo Beach Transit Center), which is about a half-mile walk for riders transferring between bus to rail.

The Hawthorne Option encroaches into Caltrans ROW along I-405 to avoid acquiring homes. Caltrans also has jurisdiction over sections of Hawthorne Blvd, which is a state highway (SR-107) and serves approximately 70,000 vehicles per day. Many intersections along Hawthorne Blvd are highly congested today with a level of service (LOS) between C to F. Caltrans has not yet approved an encroachment permit and would require Metro to complete federal environmental documentation per the National Environmental Policy Act (NEPA) before Caltrans would consider approval of an encroachment permit. This would add approximately two additional years of planning work. The lack of approval from Caltrans on the Hawthorne Option poses a significant risk to the Project implementation. In addition, Caltrans has requested that Metro consider widening existing travel

lanes along Hawthorne Blvd as part of the project, which would require acquiring slivers of properties along Hawthorne Blvd. Several major utilities would need to be relocated, including a storm drain in the center of Hawthorne Blvd and three sets of high-tension overhead power lines that need to be raised. Most of the construction would be staged in the street (Caltrans ROW), reducing roadway capacity and exacerbating existing traffic congestion with lane closures over the five-to-seven-year construction period. There are approximately 170 businesses that front this section of Hawthorne Blvd, some of which would be impacted permanently due to acquisitions needed to construct and operate the light rail. The Hawthorne Option has the highest construction cost.

Topic Area	Hawthorne Option
Significant & Unavoidable Environmental Impacts	Construction (Short-term): Noise and Vibration Operation (Long-term): Less than significant after mitigation
Other Environmental Concerns	Caltrans encroachment permit needed, not yet approved Relocation of a major storm drain and three sets of high-tension power lines Lengthy lane closures during construction along the corridor with 170+ businesses
Freight Improvements	No freight improvements or quiet zone corridor north of 190 th Street
Ridership & Access	Two rail stations: No connection to Redondo Beach Transit Center New Daily Riders: 5,497 / Daily Project Trips: 15,648
Real Estate Needs & Construction Staging	Largest amount of property needed to construct and operate. Several commercial properties needed to construct and operate Project located adjacent to I-405 and Hawthorne Blvd. No residential properties would be acquired. (Potential additional impacts to properties if Caltrans requires lane widening along Hawthorne Blvd). Lane closures during construction
Traffic & Parking	Loss of ~20 parking spaces, changes to median, left turn lanes, signalization, realignment of travel lanes
Construction Cost & Timeframe	\$2.96B (2032\$), Opening Year 2035

Per CEQA, the Draft EIR must also include “Alternatives to the Project” to reduce or eliminate significant impacts generated by the Project. As such, the Draft EIR includes three Alternatives:

- Metro ROW Hybrid (170th/182nd Grade Separated Light Rail) Alternative
- High-Frequency Bus Alternative
- No Project Alternative

Metro ROW Hybrid Alternative: This Alternative would travel along the Metro ROW for the entire 4.5-mile length and connects to both transit centers. The Alternative would include project benefits

associated with the Metro ROW alignments (e.g., new walking paths, quiet zone ready freight improvements). However, the design varies in a few locations to reduce significant and unavoidable noise impacts and address other community concerns related to the Metro ROW. Instead of at-grade crossings at 170th and 182nd Street, the Metro ROW Hybrid Alternative would locate the light rail below street level in two short trenches to travel under 170th and 182nd Street, which would:

- avoid long-term noise impacts to residential properties near 170th Street,
- avoid potential delays to emergency responders at 182nd Street,
- enhance safety along 170th and 182nd Street which are school routes,
- avoid shifting freight closer to Breakwater Village, a senior living community,
- avoid significant air quality impacts during construction (generated by the Trench Option) with less trenching, and
- improve light rail operations with fully grade separated crossings.

Topic Area	Metro ROW Hybrid (170th/182nd Grade Separated Light Rail) Alternative
Significant & Unavoidable Environmental Impacts	Construction (Short-term): Noise and Vibration Operation (Long-term): Less than significant after mitigation
Freight Improvements	Quiet zone ready improvements at eight freight crossings and upgraded trackwork to reduce noise/vibration along the corridor and enhance safety.
Ridership & Access	Two new rail stations with direct connections to both transit centers New daily riders: 4,694/ Daily project trips: 11,579
Real Estate Needs & Construction Staging	Limited real estate acquisitions north of 190 th Street The majority of construction would occur on Metro-owned land No residential properties would be acquired
Traffic & Parking	No changes to travel lanes or parking
Construction Cost & Timeframe	\$2.23B (2031\$), Opening Year 2034

High Frequency Bus (HFB) Alternative: This Alternative would avoid impacts related to rail by providing bus improvements. The HFB Alternative would provide a bus route between the Redondo Beach (Marine) Station and Torrance Transit Center with four new bus stops and 10-minute service during peak periods. The buses would travel on city streets in mixed-flow traffic. Many of the streets along the route are congested with a level of service (LOS) between C and F, which is anticipated to worsen without a rail project. Traffic signal priority would be explored pending approval by local agencies (cities and Caltrans). Due to the layout of the street grid, the bus route would require several turns on various streets to travel southeast to the Torrance Transit Center, resulting in a less direct travel route and lesser travel time savings. The HFB Alternative would not directly connect to

the Redondo Beach Transit Center. Instead, a bus stop would be located along Hawthorne Blvd south of Artesia Blvd near the South Bay Galleria. While the HFB Alternative avoids significant impacts due to rail construction and operations, it does not provide comparable levels of benefits to meet the project objectives. Rail attracts 65% more project trips and results in 88% greater savings of vehicle miles traveled to reduce air pollution and greenhouse gas emissions. The bus improvements would not have the same ability as rail to support anticipated growth in the South Bay, putting additional strain on the transportation network and resulting in increased roadway congestion and travel times.

Topic Area	High Frequency Bus Alternative
Significant & Unavoidable Environmental Impacts	Construction (Short-term): Less than significant after mitigation Operation (Long-term): Less than significant after mitigation
Other Environmental Concerns	Low ridership, low capacity, and slower travel times Fails to significantly reduce air pollution and GHG emissions and address climate change
Freight Improvements	Not applicable
Ridership & Access	4 Stops: Inglewood Ave/Manhattan Beach Blvd, Artesia/Hawthorne Blvd (South Bay Galleria), 190 th St/Del Amo Blvd, Torrance Transit Center New Daily riders: 1,248 / Daily project trips: 4,084
Real Estate Needs & Construction Staging	The majority of construction would occur on public streets. Some improvements to bus stops on sidewalks.
Traffic & Parking	Potential loss of street parking. Anticipated delays to traffic.
Construction Cost & Timeframe	\$155M* (2028\$), Opening Year 2030 <i>*A preliminary evaluation of construction costs for the HFB Alternative was performed. More detailed cost estimating work is needed to confirm construction costs and contingencies for HFB Alternative.</i>

No Project Alternative: assumes no transportation project is implemented to connect the Redondo Beach (Marine) Station to the Torrance Transit Center. While the No Project Alternative avoids construction impacts, it fails to address the project needs and objectives. The No Project Alternative would be inconsistent with the historical vision of a rail connection to the South Bay as part of the region’s long-term transportation plan, linked to multiple local land use and transportation plans, which seek to provide growing travel demand with rapid transportation infrastructure. No Project would fail to reduce vehicle miles traveled and would fail to link the two new bus transit centers to the regional rail network. Congestion would continue to worsen, as would air pollution and greenhouse emissions, which contribute to climate change. Climate change contributes to increased energy usage and public health issues around extreme heat. For these reasons, the No Project Alternative results in multiple significant and unavoidable long-term impacts related to transportation, land use, air quality, GHG emissions, and energy due to potential inconsistencies with the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP)/SCS. The No Project Alternative could

result in a loss of the \$231 million TIRCP grant, intended for a transit project.

A No Project Alternative would have the following impacts on the South Bay and greater LA region:

- Loss of ridership: 3.6 million project trips/year,
- Reduced access for 1.49 million new riders/year,
- Increased VMT: 19.5 million/year, and
- Increased GHG emissions: 2,369.4 MTCO_{2e}/year.

Topic Area	No Project Alternative
Significant & Unavoidable Environmental Impacts	Construction (Short-term): None Operation (Long-term): Transportation, Land Use and Planning, Air Quality, Greenhouse Gas emissions, Energy
Other Concerns	Fails to increase ridership and attract new riders Fails to reduce vehicle miles traveled Fail to reduce air pollution and GHG emissions, which contribute to climate change, energy use, and heat-related health concerns Fails to connect new transit centers with the regional rail network

EQUITY PLATFORM

Metro is committed to serving Equity-Focus Communities, which have been historically underserved in LA County. User benefit analysis reveals that the Project benefits extend to many Equity Focus Communities along the K line corridor as well as to the east/west C line corridor. The Project will connect the South Bay with the rest of the Metro Rail network, increasing access to employment, education, housing, and regional centers. As mentioned above, the South Bay is an important job center in LA County and is projected to grow. Providing fast, reliable access to jobs is critical to meeting travel demand and providing opportunities for economic mobility.

Based on Metro’s 2022 Equity Focus Community data, only a small geographic area in Lawndale is considered an EFC. To better understand demographic data, Metro analyzed income, race, and car-ownership data within a half-mile of the proposed station areas. In the Redondo Beach Transit Center Station area, there are census tracts where 20% to 39.9% of households are low-income, and 6% to 9% of households do not have access to vehicles. The South Bay Galleria station would also serve census tracts where 20% to 39.9% of households are low-income, and 3% to 5.9% do not have access to vehicles. Lastly, the Torrance terminus station would serve census tracts where 10 to 19% of households are low-income households and where 6% to 9% of households do not have vehicle access. Given that a majority of Metro rail riders are low-income, the demographic analysis showed a significant need for transit options in the Project area.

To engage vulnerable populations as part of the environmental study, Metro circulated all community meeting materials and notices in English and Spanish, the predominant languages in the Project area. Metro held pop-up events at local farmers markets and community events to increase awareness of the project and engaged groups who do not typically participate in community

meetings. Metro performed transit rider intercept interviews at four of the busiest bus stops in the area, meeting with over 100 riders, and performed door-to-door outreach to over 500 businesses who could be affected by the Project. Metro also held project briefings with local community colleges to reach students, another group that relies heavily on transit.

Metro will continue to prepare inclusive outreach and engagement strategies as the project moves forward and partner with Community Based Organization to help disseminate project information, advise on outreach methods, and engage a diverse set of project stakeholders as Metro advances the Project, pending the selection of an LPA.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project supports the following strategic plan goals identified in Vision 2028: Goal 1: Provide high-quality mobility options that enable people to spend less time traveling, Goal 3: Enhance communities and lives through mobility and access to opportunity, and Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

NEXT STEPS

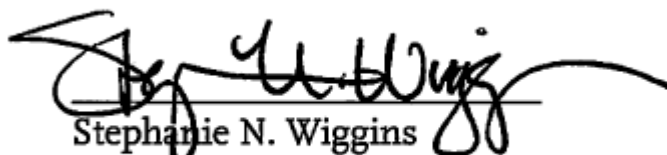
In October, Staff will present a recommendation for the Metro Board to consider in the selection of a Locally Preferred Alternative based on project objectives, findings from environmental and technical studies, community input, and Measure M commitments.

ATTACHMENTS

Attachment A - Project Maps

Prepared by: Chris Corrao, Senior Manager, Mobility Corridors, (213) 922-4716
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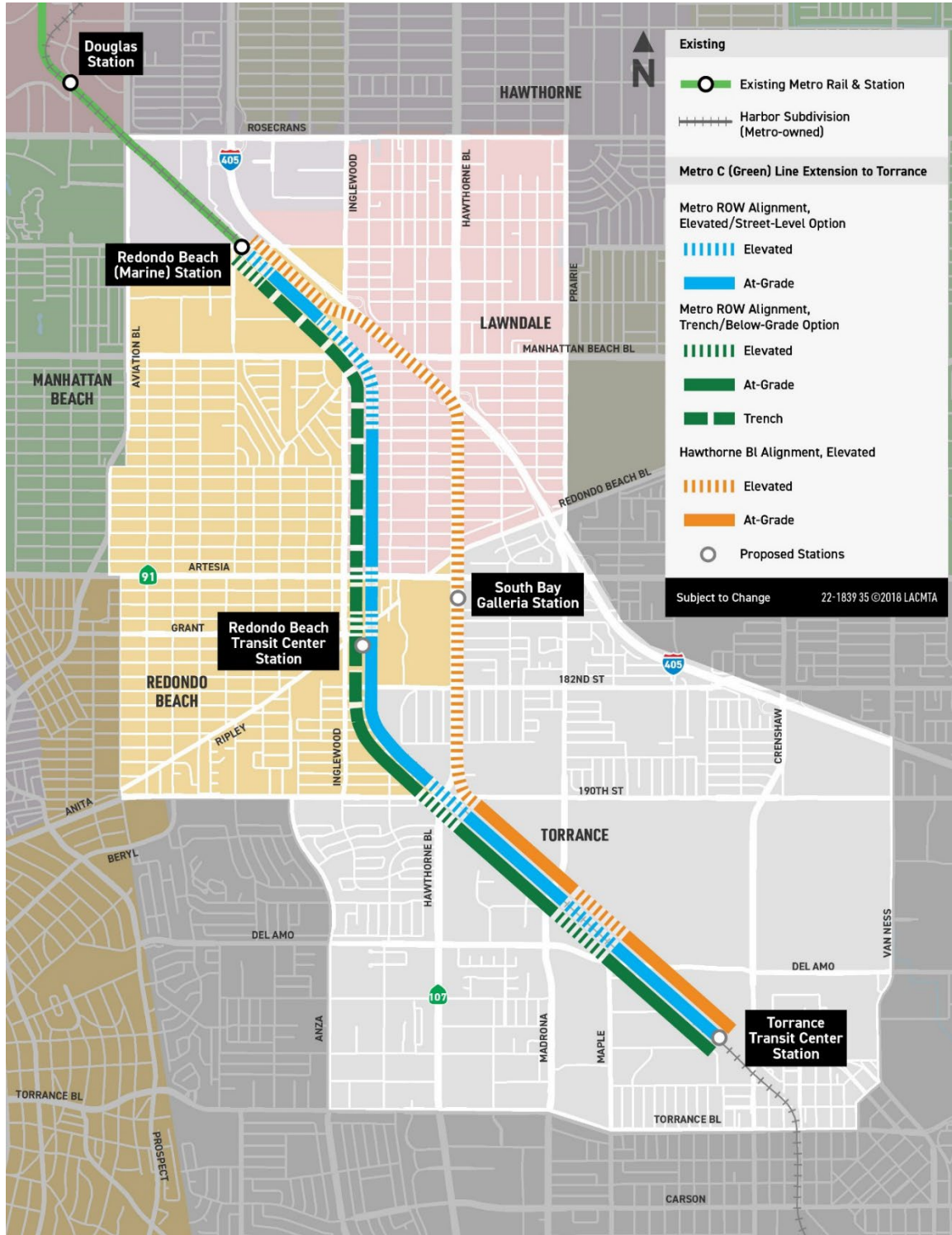
Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920



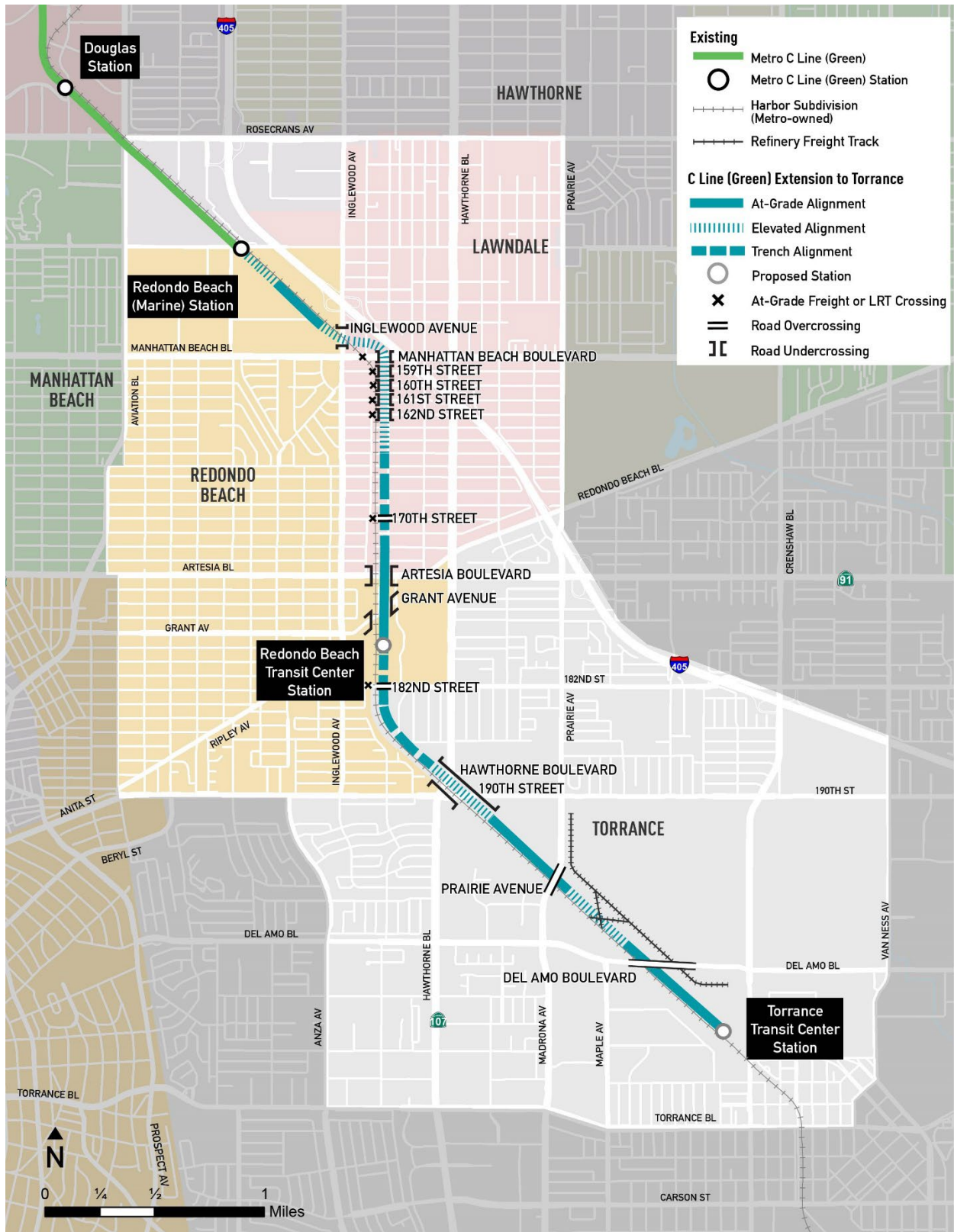
Stephanie N. Wiggins
Chief Executive Officer

Attachment A: Project Maps for C Line Extension to Torrance Project

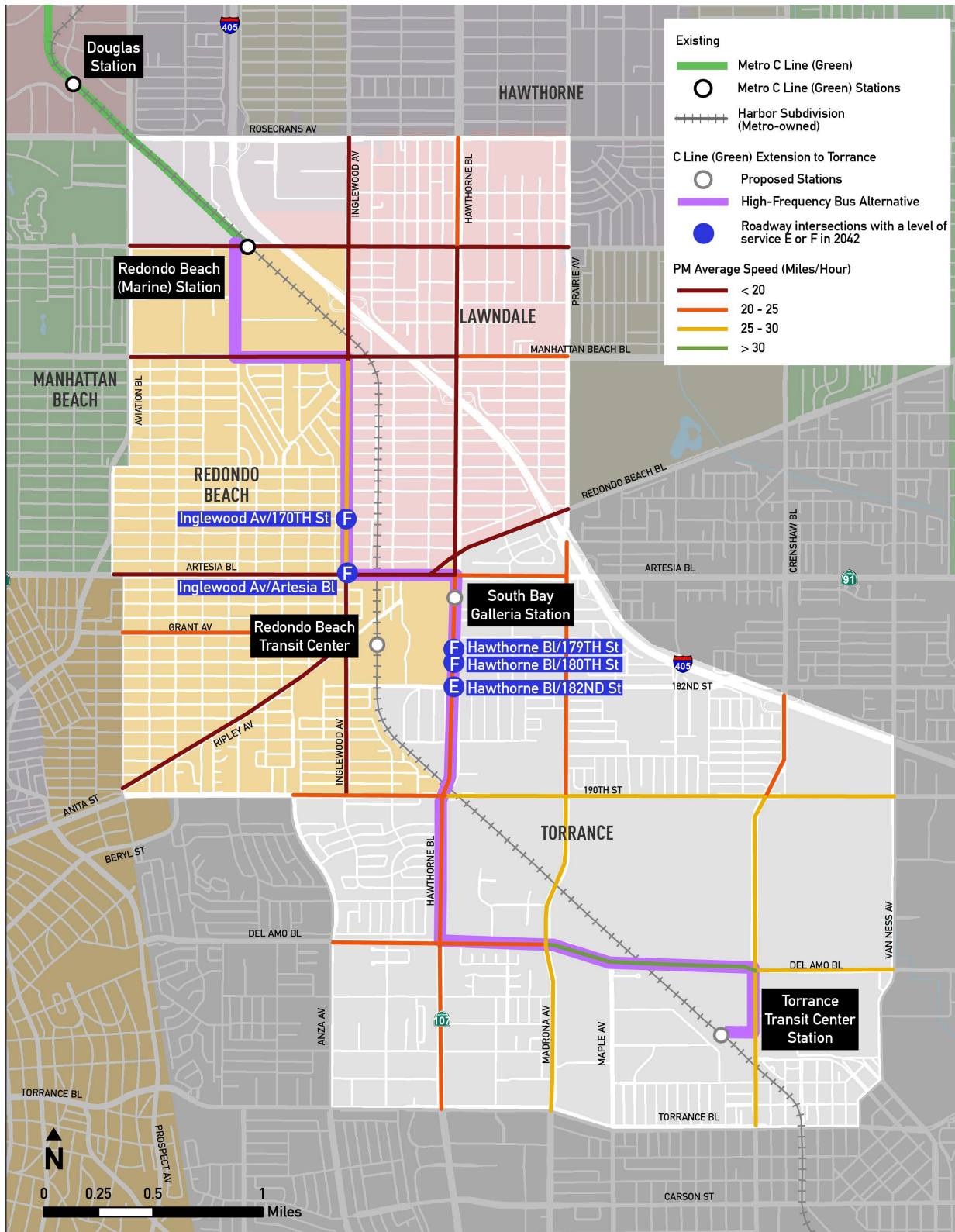
Light Rail Alignments Studied in Draft EIR



170th & 182nd Grade Separated Light Rail Alternative (Metro ROW Hybrid)



High Frequency Bus (HFB) Alternative



← To Crens

Next stop: more rail in the South Bay.

C LINE (GREEN) EXTENSION TO TORRANCE

Metro Rail & Busway



**METRO BOARD
PLANNING & PROGRAMMING COMMITTEE
EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 2023**

Project Purpose & Benefits

- Provides fast and reliable alternative to highly congested I-405 and roadways (congestion to worsen by 30% by 2045 – SCAG)
- Provides one-seat ride to LAX, Inglewood, and E Line (19-minute trip from Torrance to LAX)
- Connects newly opened Redondo Beach and Torrance bus centers to expanding County-wide regional network



Project History & Timeline

1980 Proposition A – Regional Rail Plan

1993 Metro purchased Harbor Subdivision corridor

2002 South Bay Cities Rail Study

2008 Measure R (\$272M)

2009 Harbor Subdivision AA Study

2010 Draft EIS/EIR initiated, paused in 2012

2016 Measure M (\$619M)

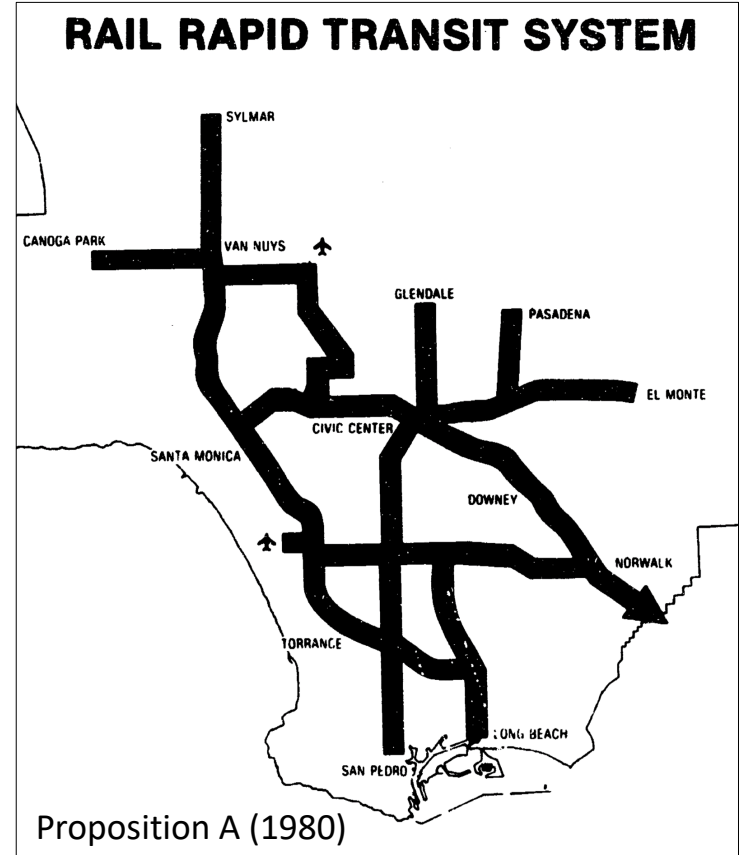
Opening: 2030-2033

2018 TIRCP Grant (\$231M)

2018 Board approval to prepare environmental study following SAA Study

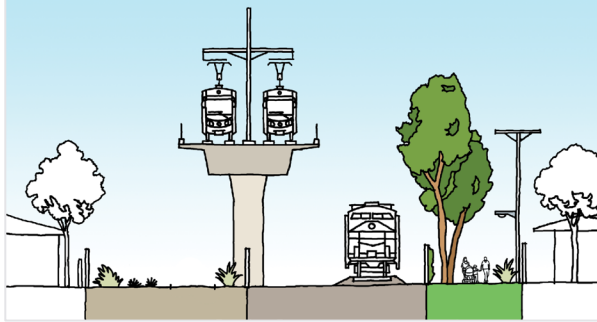
2021 Public scoping for environmental study

2023 Draft EIR Released with 61-day public comment period and five public hearings



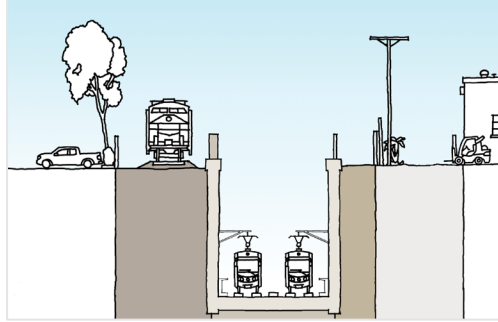
Draft EIR: Alignments & Alternatives to Project Studied

ROW Elevated/At-Grade



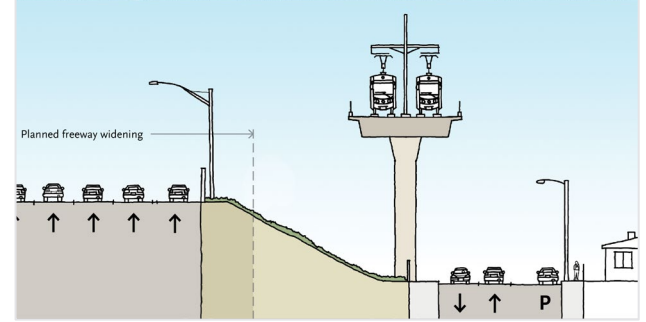
\$1.9B, Opens 2033

Trench Option



\$2.84B, Opens 2036

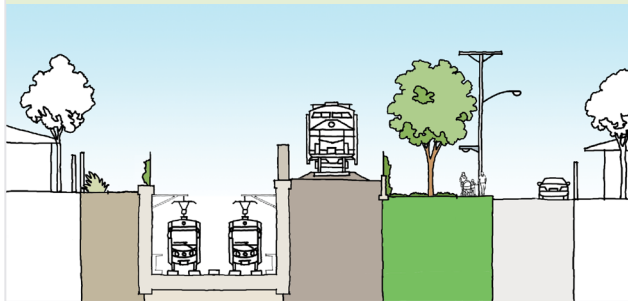
Hawthorne Option



\$2.96B, Opens 2035

ROW "Hybrid" Alternative

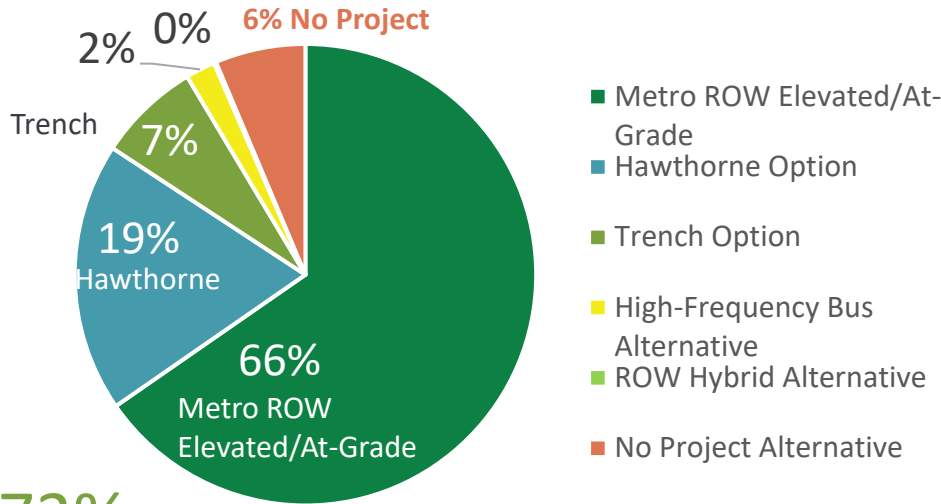
Includes under-crossings at 170th & 182nd St



\$2.23B, Opens 2034

Draft EIR also considers:
High Frequency Bus Alternative
No Project Alternative

Draft EIR Comments & Community Poll

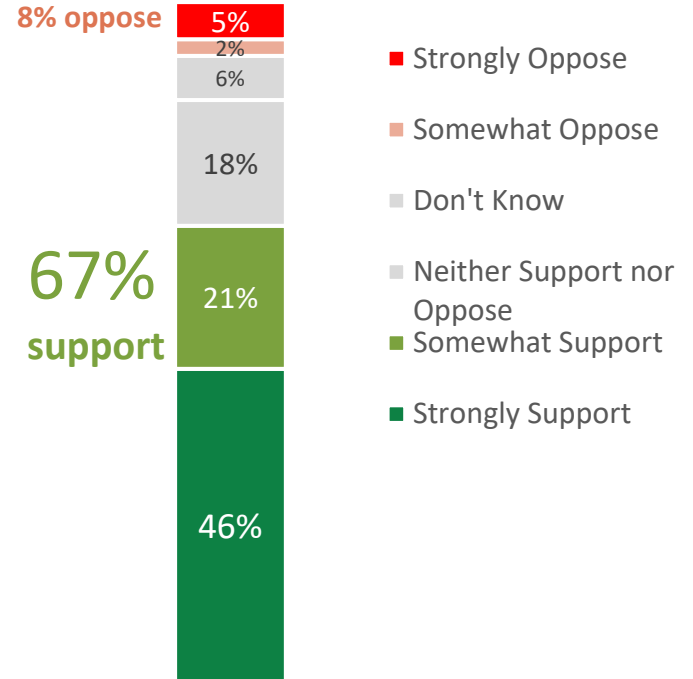


73%

Support use of Metro ROW in some form

2023 Draft EIR

1,850 comments on alignments
2,200 comments total over 61-day
comment period with 5 public hearings



67% support

8% oppose

Spring 2023 Poll

670 Residents surveyed in Lawndale,
Redondo Beach and Torrance

Community Concerns & Metro Commitments to Address

Concerns

- Noise and vibration
- Freight noise and derailment
- Safety and security
- Delays to emergency responder
- Property values
- Utility relocations
- Loss of trees and greenspace
- Property impacts/displacement
- Changes to traffic and parking



Commitments: “quiet zone ready” corridor, sound walls, special trackwork, neighborhood paths, security plan tailored to local communities, mitigation measures



Far Reaching Project Benefits

Travel time savings extend beyond Project area to South Bay, Palos Verdes Peninsula, Gateway Cities, South LA and Central LA

Next Steps: October Metro Board Meeting:

Staff to provide recommendation for Locally Preferred Alternative (LPA) to:

- Meet project need and objectives
- Mitigate significant and adverse impacts during operations
- Address community concerns through mitigations and commitments

2042 Project Work Trips From South Bay

Green illustrates areas with travel time benefits
Dashed purple indicates Equity Focus Communities

