



Board Report

File #: 2018-0317, File Type: Project

Agenda Number: 14.

PLANNING AND PROGRAMMING COMMITTEE SEPTEMBER 19, 2018

SUBJECT: GREEN LINE EXTENSION TO TORRANCE

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING the Green Line Extension to Torrance Supplemental Alternative Analysis (SAA) Report; and
- B. AUTHORIZING the CEO to carry forward the following two build alternatives (modified):
 - 1. Alternative 1: Metro right-of-way (ROW) and overcrossing, without a station at Manhattan/Inglewood
 - 2. Alternative 3: Hawthorne to 190th Street, without a station at Hawthorne/166th Street; and
- C. AUTHORIZING the CEO to initiate the Draft Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) for the two build alternatives as modified.

ISSUE

With the passage of Measure M in November 2016, which included funding for the Green Line Extension to Torrance Project (Project), Metro reinitiated the planning studies for the Project in spring 2017 with this SAA. The SAA is focused on a 4.5-mile segment of the Harbor Subdivision ROW from the existing Redondo Beach (Marine Avenue) Station to the Torrance Transit Center (TC), currently under construction by City of Torrance.

Its goal was to gain consensus on a revised Alternative(s) for presentation to and approval by the Metro Board to be carried forward in the next phase of environmental studies. Attachment A contains the Executive Summary, inclusive of goals, performance, travel and cost information. The full report is available on the project website: <https://www.metro.net/projects/green-line-extension/> The SAA recommends two alternatives to be carried forward for environmental analysis. Board action is needed in order to proceed forward with the environmental analysis. The Measure M groundbreaking date is Fiscal Year (FY) 2026.

BACKGROUND

Measure M Project Description

The Project is identified in Measure M as an extension of the existing Metro Green Line light rail transit (LRT) to Crenshaw Boulevard in Torrance. The exact project description of all projects set forth in the Measure M ordinance are to be defined by the environmental process, which includes features such as termini, alignment and stations. Per Measure M and Metro's 2009 Long-Range Transportation Plan (as amended), the Project has an \$891 million (2015\$) allocation based on the cost estimate that was current at the time that the Measure M Expenditure Plan was approved.

Relatedly, the Project is also included in Metro's "Twenty-Eight by '28 Initiative" project list as an aspirational project schedule to be completed in time for the 2028 Olympic and Paralympic Games in Los Angeles. Therefore, efforts are being made to achieve an early project delivery; this July 2018 Board action would facilitate efforts for project acceleration.

History

Metro completed an Alternatives Analysis (AA) Study in 2009, which studied transit alternatives along the Metro ROW between downtown Los Angeles, Los Angeles International Airport (LAX) and the Ports of Los Angeles and Long Beach. The AA identified the Green Line Extension from Redondo Beach to Torrance, utilizing the Metro ROW, as the highest-priority project. Light rail transit (LRT) was identified as the preferred mode. Metro initiated a Draft EIS/EIR in 2010, studying the potential environmental benefits and impacts of the alternatives prioritized in the AA. The Draft EIS/EIR studied No Build, Transportation Systems Management, and LRT Alternative along the ROW. After the failure of Measure J in 2012, this Draft EIS/EIR was put on hold due to funding concerns.

After the passage of Measure M, Metro reinitiated the planning studies for the Green Line Extension to Torrance Project in spring 2017 with the SAA. This SAA study focused on soliciting feedback from corridor cities and stakeholders to refine and update alternatives previously identified in the 2009 Alternatives Analysis and 2010 to 2012 Draft EIR/EIS.

Metro reviewed the conditions described in the earlier analysis and began an outreach process to stakeholders and cities in the South Bay to identify and evaluate any major new changes, opportunities or concerns since the Project was paused in 2012 before initiating the environmental analysis. To address these, Metro agreed to conduct an SAA, expanding the range of alternatives under consideration beyond the single Right-of-Way (ROW) Alternative. This SAA also allowed Metro to update existing conditions of the Project area, which have changed since the earlier analysis began in 2010.

Throughout 2017, the Metro project team used multiple iterations of feedback from cities and stakeholders to guide the evaluation of additional light rail alternatives for consideration. As a result, the Metro project team proposed various alignment and design options between the existing Redondo Beach Station and the Torrance Transit Center (TC). Based on that iterative outreach process and further technical analysis, four Build Alternatives were prepared for analysis in the SAA.

DISCUSSION

As part of the SAA, the four alternatives were analyzed, two of which are within Metro's existing

ROW. These four Build Alternatives are shown in Attachment B. Alternatives under consideration include:

- Alternatives within the existing Metro ROW
 - Alternative 1: Metro ROW and Overcrossing
 - Alternative 2: Metro ROW and Undercrossing
- Alternatives that travel down the median of Hawthorne Boulevard for various lengths:
 - Alternative 3: Hawthorne to 190th Street
 - Alternative 4: Hawthorne to Artesia

Each alternative would share the same alignment approximately south of 190th Street and terminate at a station serving the Torrance TC.

Community Engagement

Outreach efforts conducted throughout the SAA process included stakeholder meetings; tours for residents and elected officials to experience areas of the Metro Rail system similar to the proposed Project; and community meetings. Community input received from each of these outreach efforts is summarized in the SAA document, and all public comments received are included in Appendix B of the SAA report. These comments have been reviewed by Metro staff and are an important factor in the recommendations to the Metro Board of Directors regarding which alternative(s) to advance to the environmental review phase. Outreach conducted during this period included the following:

1. **Stakeholder meetings:** Two rounds of stakeholder meetings were conducted to seek feedback on alternatives.
2. **Community Tours:** In spring 2018, Metro invited residents, stakeholders, and elected officials from the Project area to tour the Metro Rail system. Three tours were conducted that focused on locations along the Metro Gold Line and Expo Line. The tours highlighted stations or segments of rail lines which have similar local conditions to the proposed Project. Attendees expressed interest in Metro rail projects, community integration, and environmental impacts such as safety and noise.
3. **Community Meetings:** In April-May 2018, Metro held four community meetings. These workshops included a presentation from Metro, a public comment period, and an open house where attendees could speak with project team staff, write comments directly on a roll-plot map of the alternatives, and submit comment cards.

Throughout the duration of the SAA study, a total of 580 comments were collected. A breakdown of the number of comments collected via each method is included in Appendix B of the SAA. Not all comments received expressed a preference for a specific alternative. Attendees generally expressed support for Alternatives 1 and 3, and voiced concerns over a station in City of Lawndale. The community showed limited support for Lawndale Station at Manhattan/Inglewood due to its proximity to Redondo Beach/Marine Station, impact to business, lack of parking and traffic concerns. The community expressed similar concerns for station at Hawthorne/166th Street and its proximity to South Bay Galleria Station. Other concerns included aesthetics, noise, property impacts, safety, and traffic. Attachment E includes comment letters received from Cities of Lawndale and Redondo and

South Bay Service Council.

Recommended Alignments

Based on the technical evaluation in the SAA and public/stakeholder input, staff recommends two alternatives to be carried forward into the EIR/EIS for further analysis and refinement.

The four alternatives were evaluated based on how well they addressed the qualitative Project goals as well as key, quantitative performance factors. The Project goals are intended to qualitatively guide the overall planning process and serve as one of several performance measurement tools.

Attachment C summarizes how each alignment qualitatively performed when compared to the goals. The Project goals are:

- provide mobility improvements;
- minimize environmental impacts;
- support local and regional land use plans and policies;
- ensure cost effectiveness and financial feasibility; and
- ensure equity.

In addition to the Project goals, staff also quantitatively evaluated each alternative against key performance factors (Attachment D). These factors, which aim to capture the customer impact and experience, are compared for each alignment below.

	Daily Boardings	New Riders	Travel Time (min)	ROM* Cost Estimate (2017 \$ M)	Cost per New Rider (2017 \$)***
Alt 1: ROW Overcrossing	10,340	4,570	7	\$893	\$614
Alt 2: ROW Undercrossing	10,340	4,570	7	\$1,094	\$753
Alt 3: Hawthorne to 190th St	10,640	4,400	9	\$1,003 to 1,220**	\$717
Alt 4: Hawthorne to Artesia	10,630	4,590	8.5	\$1,123	\$769
	* Rough Order of Magnitude Cost Estimate **Additional cost of grade separation at Redondo Beach Blvd and Artesia Blvd (further analysis required) *** Cost per new rider = Project Cost/New Riders				

Attachment F includes a map of the two recommended alternatives. These alignments also represent a reasonable range of alternatives to be evaluated as required by the state and federal environmental

process.

- Alternative 1: Metro ROW and overcrossing, without a station at Manhattan/Inglewood
 - Reasoning: This alternative makes efficient and effective use of the existing Metro ROW and straightforwardly extends the existing aerial structure across Manhattan Beach Boulevard, which is a necessary grade separation, before returning to grade. It provides the fastest travel time. The rough order of magnitude cost estimate is within the Measure M funding allocation.
- Alternative 3: Hawthorne to 190th Street, without a station at Hawthorne/166th
 - Reasoning: This alternative serves more commercial land uses and may have the highest potential for new transit-oriented communities land use planning, should local cities choose to update their plans. It is superior to Alternative 4 because it does not have sharp turns to degrade performance. This alternative was prepared in response to public and stakeholder input. Its rough order of magnitude cost exceeds the Measure M funding allocation.

How these alternatives connect with the planned Redondo Beach Transit Center and the proposed South Bay Galleria Improvement Project (a private project within the City of Redondo Beach) will be further studied during the environmental review process.

Alternative 2: ROW with Overcrossing and Alternative 4: Hawthorne to Artesia will not be carried forward for further consideration as these alternatives do not perform as well in advancing the goals of the Project and have limited community support, as further discussed below.

Cost Estimates

All project cost estimates are rough order of magnitude. Significant project design development remains. Cost estimates are expected to increase resulting from further defining the project during the environmental review and public, stakeholder and partner engagement processes.

Consistency with Metro's Equity Platform Framework

The Project is consistent with the recently-adopted Metro Equity Platform Framework and will provide new benefits of enhanced mobility and regional access to minority and/or low-income populations within the Project area. The Project would run primarily through Environmental Justice (EJ) communities, which the SAA defines as populations of over 50% minority, low-income, or limited-English proficiency. These communities are burdened by existing land use and transportation issues within the Project area. Further, the South Bay as a whole is not well connected to the regional transit system. According to the 2016 Southern California Association of Governments Regional Transportation Plan/ Sustainable Communities Strategy, population and employment within the Project area are projected to grow by 8% and 21%, respectively, by 2040.

The Project will improve access to these jobs, as well as to major activity centers, including educational and medical institutions, and recreational opportunities within the Project area and across the Los Angeles region. All of the aforementioned Project benefits will collectively expand access to opportunities for residents of the Project area. Metro staff will ensure that Metro's Equity Platform Framework will guide the process for evaluating the recommended alternatives in the Draft EIS/EIR.

DETERMINATION OF SAFETY IMPACT

This action will not have any impact on the safety of our customers and/or employees because this Project is at the study phase and no capital or operational impacts results from this Board action.

FINANCIAL IMPACT

There is no financial impact to this action.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan goal 1: provide high quality mobility options that enable people to spend less time traveling. The Project area currently faces a number of interrelated land use and transportation issues. Major arterial roadways are congested throughout much of the day. Consequently, bus routes in the South Bay experience slow travel speeds and a high variation in travel times. There are numerous transit operators in the Project area but poor connections between local and regional systems. Additionally, there is a lack of high-quality, frequent transit services that connect to key destinations and employment centers locally and outside the Project area.

A more convenient and reliable connection between the Metro rail system and South Bay communities would reduce transit travel times and provide a viable alternative to driving. The project aims at providing a reliable, high-frequency transit service and improving mobility in southwestern Los Angeles County by enhancing the regional transit network in the South Bay.

ALTERNATIVES CONSIDERED

The Board could decide not to approve the recommended alternatives to be carried forward into the environmental. This would not be consistent with prior Board direction to advance the Project and Measure M. This alternative is not recommended as this would impact the Project's environmental clearance schedule. The narrowing of the alternatives will ensure the Project remains on schedule and will also support the procurement of a contractor to deliver the Project. The Board could decide to instead carry forward either or both Alternatives 2 and 4. This is not recommended either because both have operational challenges and limited community support:

Alternative 2 has design challenges associated with transition from aerial station at Redondo/Marine to a trench segment before Manhattan/Inglewood Boulevards.

Alternative 4 has operational challenges due to geometry, including multiple sharp turns. Requires more ROW acquisitions from the adjacent commercial, industrial, utility, and residential properties, particularly in the segment along I-405 between Inglewood Avenue and Hawthorne Boulevard.

NEXT STEPS

Upon Board approval, staff will initiate the procurement of consultant services to prepare the environmental analysis, advanced conceptual engineering and conduct community outreach. Staff

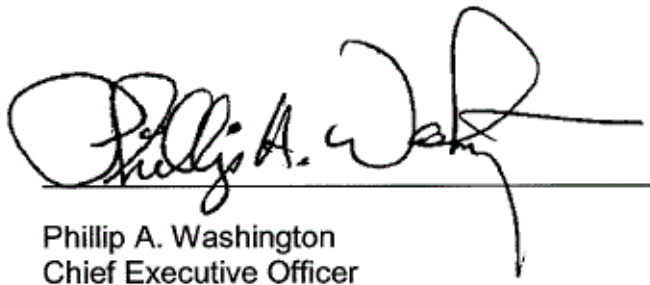
will return to the Board for approval of a contract award of this work.

ATTACHMENTS

Attachment A - SAA Executive Summary
Attachment B - SAA Alternatives
Attachment C - Summary of Project Goals Results
Attachment D - Summary of Performance Measures
Attachment E - Recommended Alternatives
Attachment F - Comment Letters

Prepared by: Meghna Khanna, Senior Director, Countywide Planning & Development (213) 922-3931
Laura Cornejo, DEO, Countywide Planning & Development
(213) 922-2885
David Mieger, EO, Countywide Planning & Development
(213) 922-3040
Manjeet Ranu, SEO, Countywide Planning & Development
(213) 418-3157

Reviewed by: Therese W. McMillan, Chief Planning Officer, (213) 922-7077



Phillip A. Washington
Chief Executive Officer

Attachment A

http://libraryarchives.metro.net/DB_Attachments/Attachment%20A_SAA%20Executive%20Summary.pdf

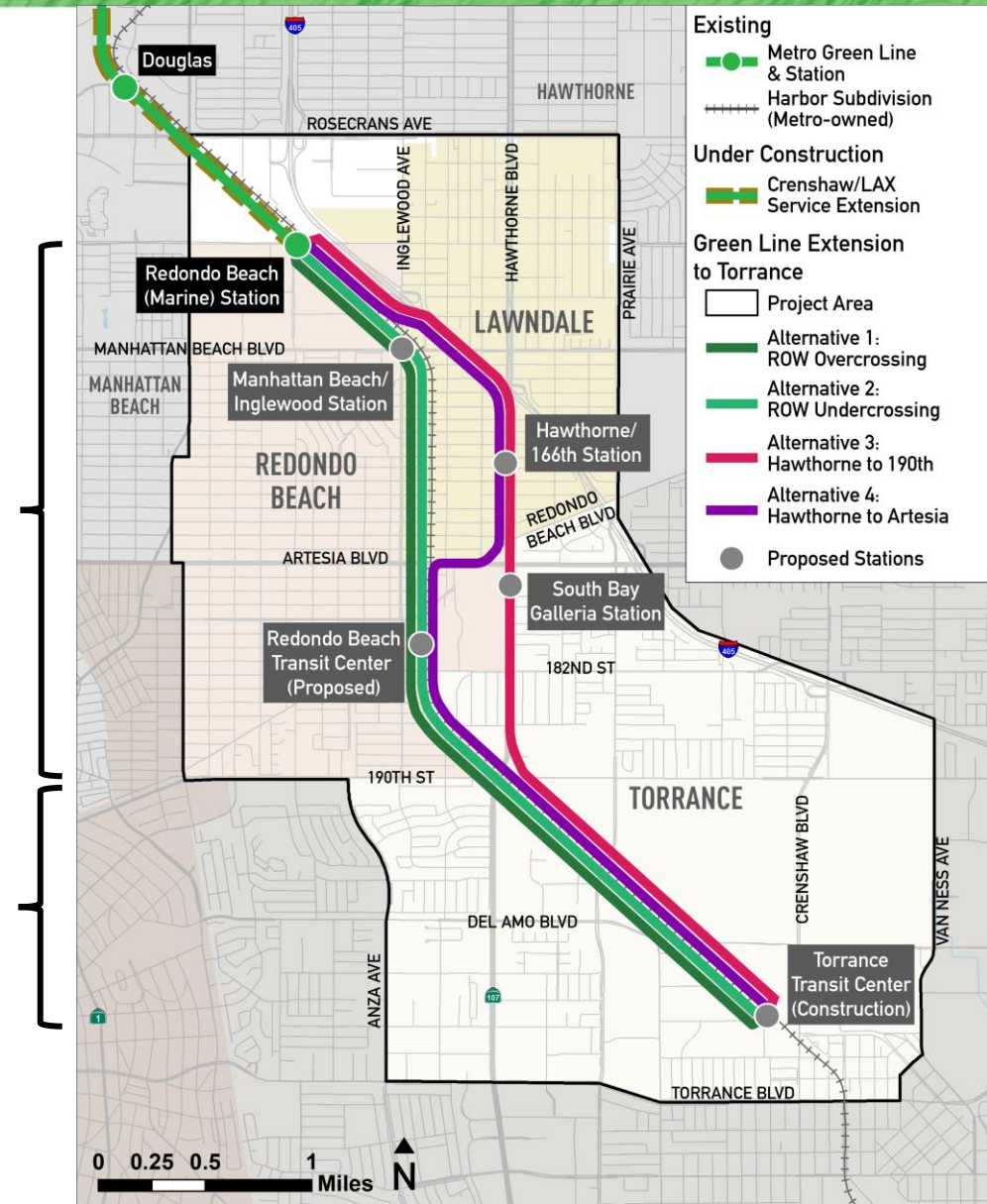
SAA Alternatives

Redondo Beach Station to 190th St








- **Metro ROW**
 - Alt 1: ROW Overcrossing
 - Alt 2: ROW Undercrossing
- **Hawthorne Blvd**
 - Alt 3: Hawthorne to 190th
 - Alt 4: Hawthorne to Artesia

190th to Torrance TC

- All Alternatives Identical



Summary of Project Goals Results

Project Goals	Alternative 1: ROW Overcrossing	Alternative 2: ROW Undercrossing	Alternative 3: Hawthorne to 190th	Alternative 4: Hawthorne to Artesia
1. Improve Mobility				
2. Minimize Env. Impacts				
3. Ensure Cost Effectiveness and Financial Feasibility				
4. Ensure Equity				
5. Support Local and Regional Land Use and Policies				
Overall Rating	High	Medium	Medium	Medium/Low

Summary of Performance Measurements

Alternatives	Daily Boardings	New Riders	Travel Time (min)	ROM Cost Estimate (2017 \$ M)	Cost per New Rider (2017 \$)**
Alt 1: ROW Overcrossing	10,340	4,570	7	\$893	\$21.01
Alt 2: ROW Undercrossing	10,340	4,570	7	\$1,094	\$24.25
Alt 3: Hawthorne to 190 th	10,640	4,400	9	\$1,003 to 1,220*	\$24.23
Alt 4: Hawthorne to Artesia	10,630	4,590	8.5	\$1,123	\$25.15

* Additional cost of grade separation at Redondo Beach Blvd and Artesia Blvd (further analysis required)

**Cost per new rider = Project Cost/New riders



CITY OF LAWDALE

Office of the Mayor

ROBERT PULLEN-MILES
Mayor

July 19, 2018

Chairperson Mayor Eric Garcetti and Members of the Metro Board
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Mail Stop 99-22-3
Los Angeles, CA 90012

Re: Metro South Bay Green Line Extension – Proposed Transit Station in Lawndale

Dear Chairperson Mayor Eric Garcetti and Members of the Metro Board,

One July 16, 2018 the Lawndale City Council approved sending this letter to the Metro Board to communicate the City's opposition to a planned Transit Station on or near the north-east corner of Inglewood Avenue and Manhattan Beach Boulevard. This action was prompted at this time due to a request from Metro staff for such a letter.

The proposed Transit Station is part of the planned Metro Green Line Extension through the City of Lawndale. Since the inception of the Green Line Extension by Metro, the City of Lawndale has been opposing any route of the Green Line through the City of Lawndale due to the negative and harsh impacts the project will have on thousands of residents and many businesses. In addition, the proposed location at the north-east corner of Inglewood Avenue and Manhattan Beach Boulevard is approximately 3,600 rail feet from the existing Metro Transit Station at Marine Avenue.

While opposed to the project, mitigation measures such as undergrounding and residential retro-fitting and sound-proofing have previously been communicated to the Metro Board and staff by the City. With this letter the City of Lawndale is on record as opposing the proposed Transit Station that is only two-thirds (2/3) of a mile from an existing Metro transit station.

Sincerely,

Robert Pullen-Miles
Mayor

cc: Meghna Khanna, Metro
Members of the Lawndale City Council
Sean Moore, Lawndale Community Development Director



Bill Brand
Mayor

415 Diamond Street, P.O. BOX 270
Redondo Beach, California 90277-0270
www.redondo.org

tel 310 372-1171
ext. 2260
fax 310 374-2039

July 18, 2018

Mr. Phillip A. Washington
Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012-2952

Dear Mr. Washington:

The Green Line extension to Torrance will bring much needed transportation infrastructure to our region. Each day thousands of commuters leave the South Bay and travel North for work or leisure, creating the congestion that consequently affects quality of life for all residing in the greater Los Angeles area.

On July 17, 2018, the Redondo Beach City Council received a report and voted unanimously supporting the submittal of this letter to your offices.

On behalf of the Redondo Beach City Council, we urge you and the Metro Board to proceed with a full project Environmental Impact Report (EIR) studying Alternative 3 in an elevated position. This would address many of our residents' concerns and allow the line to traverse a popular commercial corridor.

In the event the Metro Board chooses to study Alternatives 1 or 2, we would furthermore urge that the EIR address trenching in Redondo Beach, south of Grant Avenue, through the future RB transit center, under 182nd Street and along the existing Right of Way until it needs to ascend back up to the elevated track crossing Hawthorne/190th Street. While this is not the preferred route for our residents, we believe these suggested mitigations would be most beneficial to their quality of life and future traffic patterns along 182nd Street. Lastly, the City Council opposed and did not support further consideration of Alternative 4.

I would be happy to discuss the concerns and suggestions with you, staff and the Board Members. Thank you for your consideration.

Sincerely,

William C. Brand



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Board of Directors
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza, 99-3-1
Los Angeles, CA 90012

August 10, 2018

Dear Metro Board of Directors:

In October 2017, the South Bay Service Council received a South Bay Light Rail Extension Project update; multiple public comments on the project have been received at subsequent Council meetings.

At our July 13, 2018 meeting, the South Bay Service Council voted to formally express support for the South Bay Light Rail Extension project to move forward. More specifically, we urge the Metro Board to authorize moving this project forward into the Environmental Impact Study phase inclusive of all alternatives to be considered.

The South Bay Service Council recognizes that neighboring communities have their individual concerns regarding this project; we encourage Metro to continue its extensive community outreach efforts and to work through those concerns with the local municipalities and community groups. This letter evidences our strong support for advancement of the Green Line Extension to Torrance Project.

The members of the South Bay Service Council respectfully request that the Board direct staff to recommend alternatives for consideration and further review through the Environmental Impact Study process. We will continue to work with Metro to address community concerns and support the project's outreach efforts, and look forward to the provision of expanded transit access for our region's constituents through the eventual completion of this project.

Sincerely,

Ralph Franklin
Chair
South Bay Cities Service Council

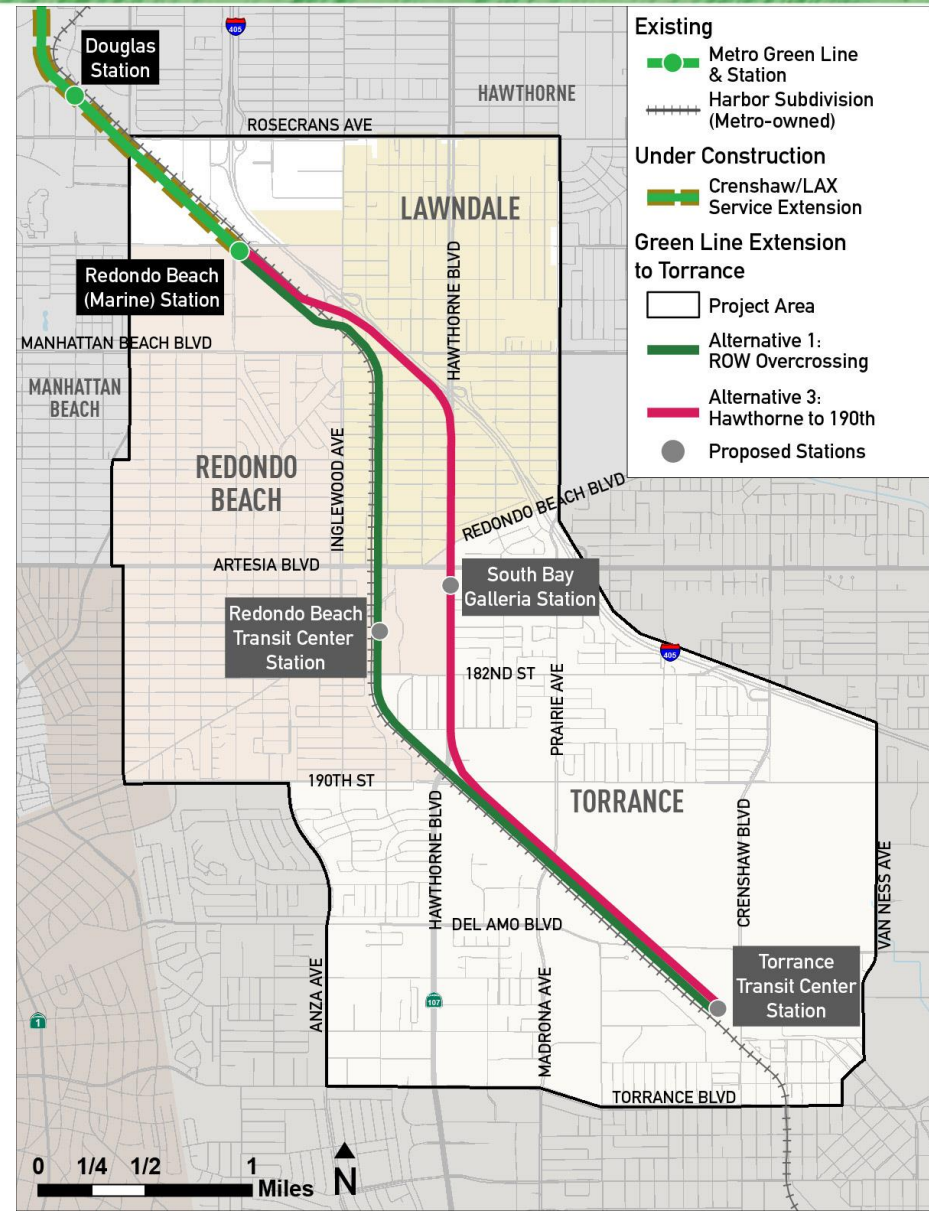
Recommended Alternatives

Redondo Beach Station to 190th St

- **Metro ROW**
 - Alt 1: ROW Overcrossing, without a station at Manhattan/Inglewood
- **Hawthorne Blvd**
 - Alt 3: Hawthorne to 190th, without a station at Hawthorne/166th Street

190th to Torrance TC

- All Alternatives Identical



Next stop: more rail in the South Bay.

GREEN LINE EXTENSION TO TORRANCE

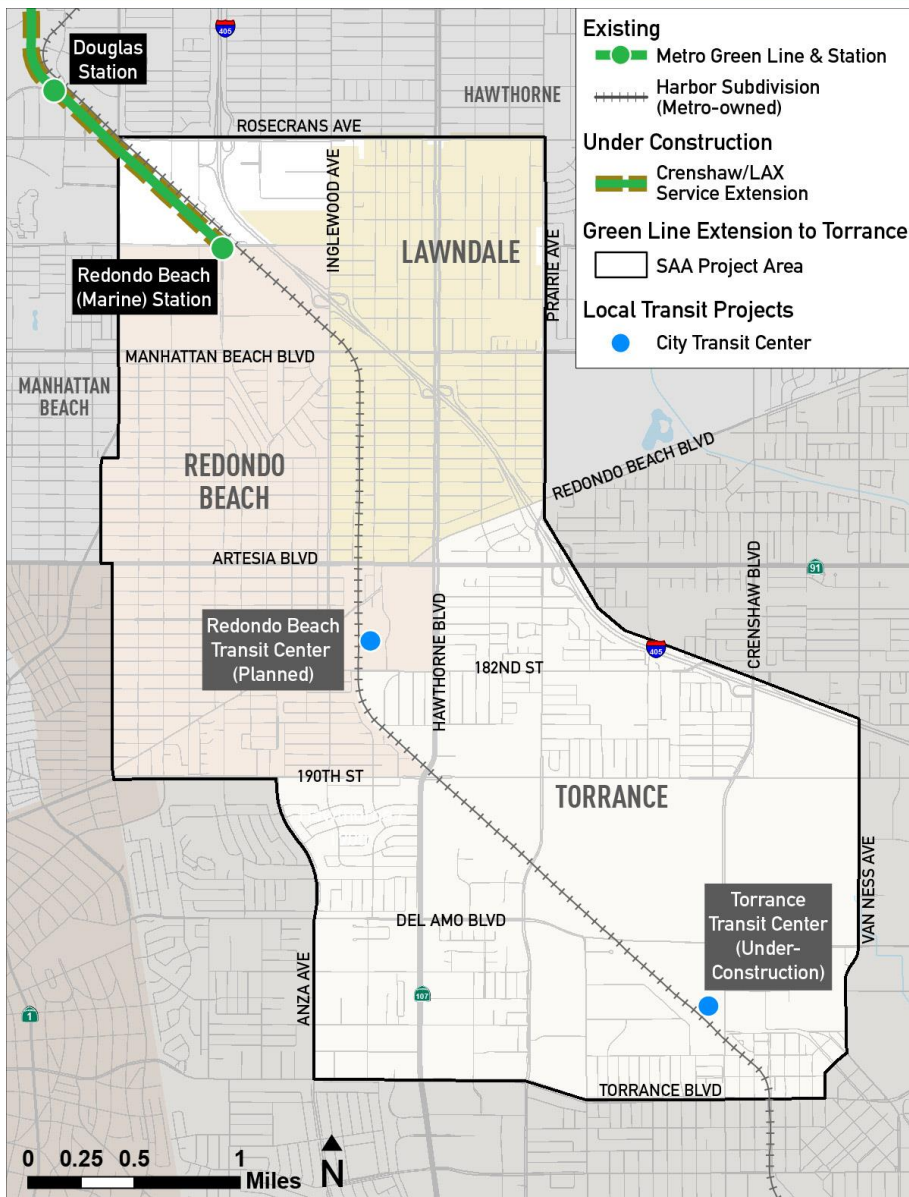


Recommendation

AUTHORIZING:

1. Carrying forward two build alternatives (modified) into Draft EIS/EIR:
 - **Alternative 1:** Metro right-of-way (ROW) Overcrossing, without a station at Manhattan/Inglewood
 - **Alternative 3:** Hawthorne to 190th Street without a station at Hawthorne/166th Street
2. Initiating the Draft EIS/EIR.

Green Line Extension to Torrance (GLET) Project Goals



- Improve **mobility**
- Minimize **environmental** Impacts
- Ensure **cost** effectiveness and financial feasibility
- Support local and regional **land use** plans and policies
- Ensure **equity**

Supplemental Alternative Analysis (AA)

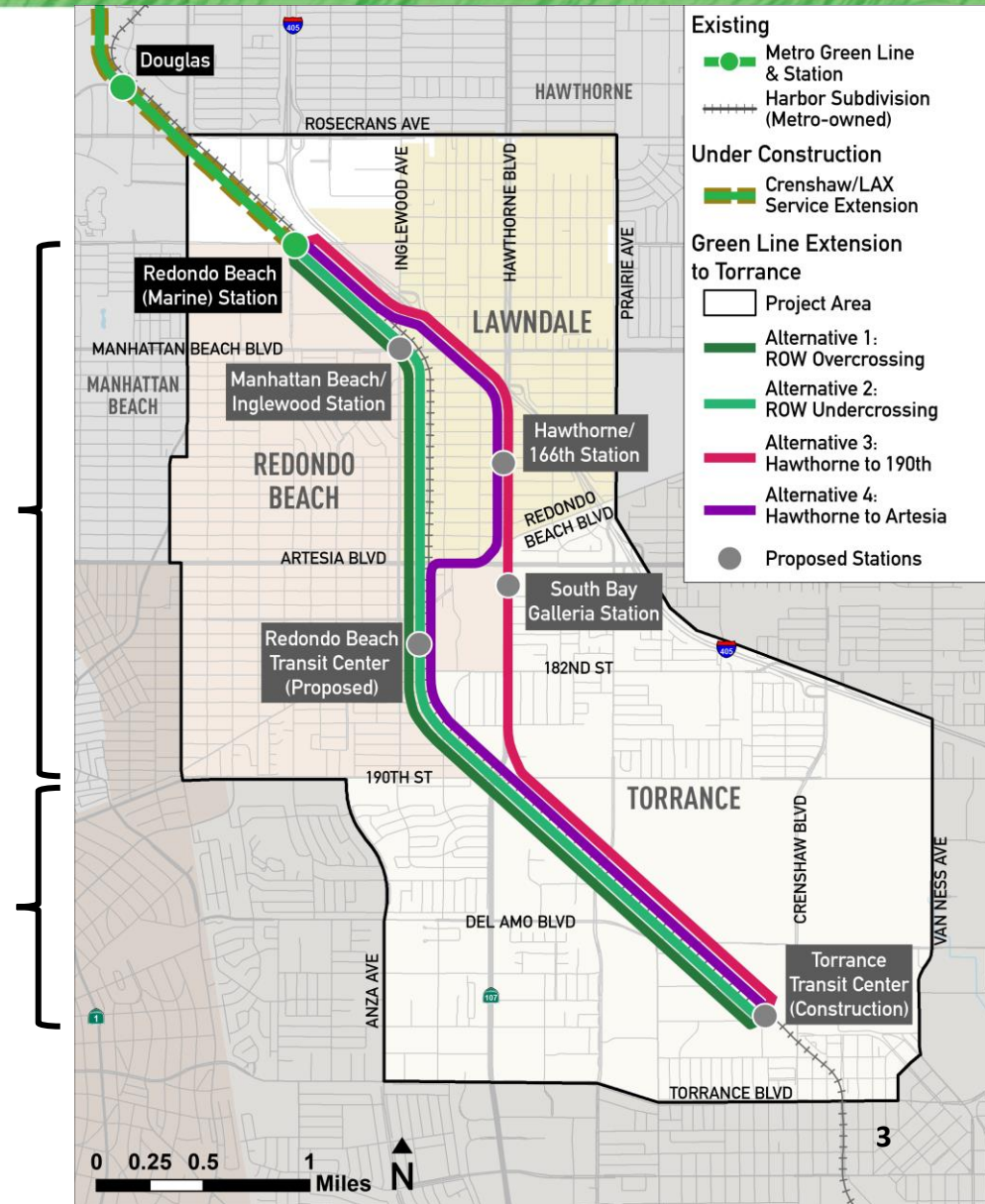
Alternatives Considered

Redondo Beach Station to 190th St

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 - Alt 1: ROW Overcrossing
 - Alt 2: ROW Undercrossing
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 - Alt 3: Hawthorne to 190th
 - Alt 4: Hawthorne to Artesia

190th to Torrance Transit Center

- All Alternatives Identical



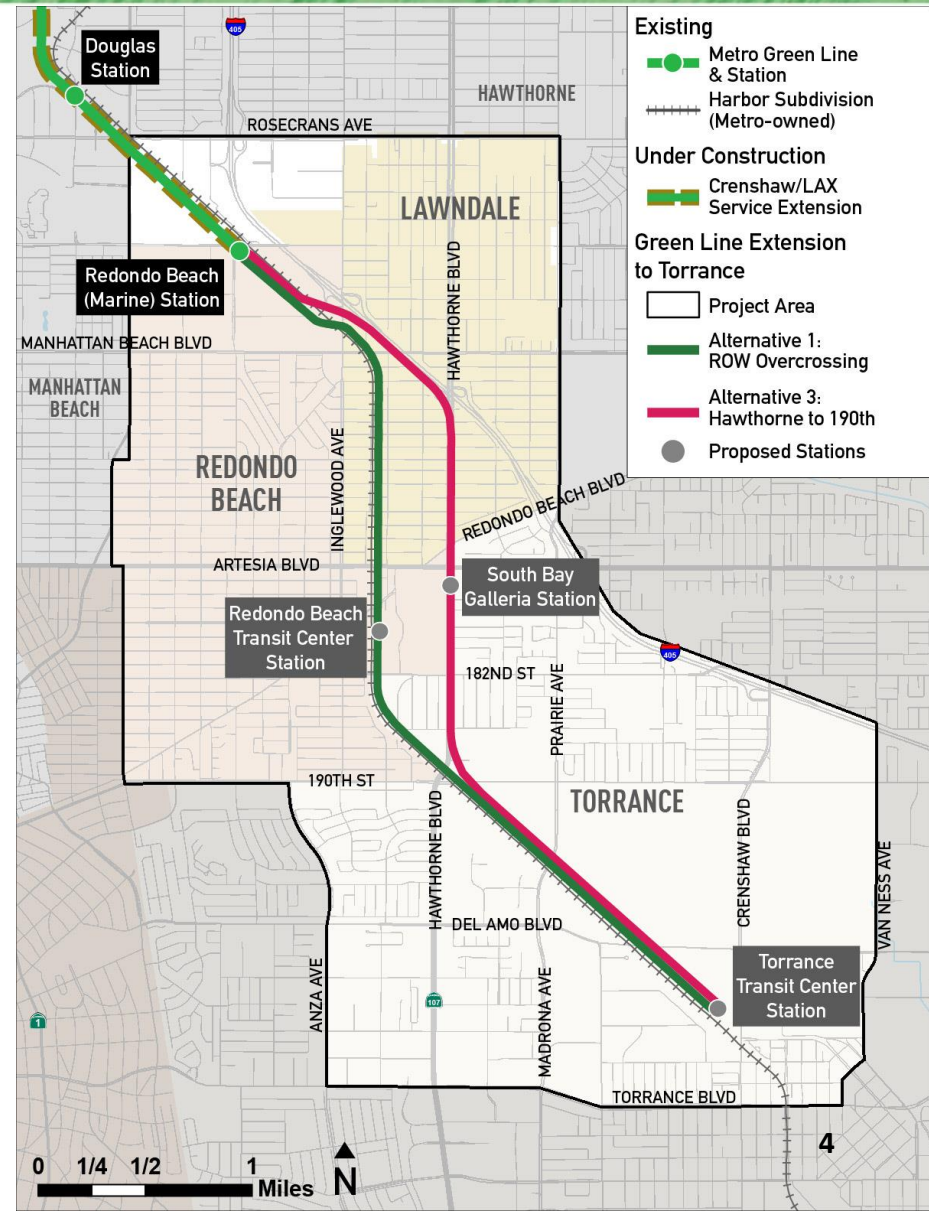
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190th to Torrance Transit Center

- All Alternatives Identical



Performance Compared to Project Goals

Project Goals	Alternative 1: ROW Overcrossing	Alternative 2: ROW Undercrossing	Alternative 3: Hawthorne to 190th	Alternative 4: Hawthorne to Artesia
1. Improve Mobility	●	●	◐	◐
2. Minimize Env. Impacts	◐	◐	◐	◐
3. Ensure Cost Effectiveness and Financial Feasibility	●	◐	◐	○
4. Support Local and Regional Land Use and Policies	◐	◐	●	◐
5. Ensure Equity	◐	◐	◐	◐
Overall Rating	High	Medium	Medium	Medium/Low

Summary of Performance Measurements

Alternatives	Daily Boardings	New Riders	Travel Time (min)	ROM Cost Estimate*** (2017 \$ M)	Cost per New Rider (2017 \$)**
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* Additional cost of grade separation at Redondo Beach Blvd and Artesia Blvd (further analysis required)

** Cost per new rider = Capital Cost/new riders

*** ROM = Rough Order of Magnitude

Community Outreach

- **Meetings**
 - Agency Consultation Meetings: May - Sep. 2017
 - Stakeholder Meetings: 27 meetings
 - Three (3) Tours of Gold & Expo Lines: March 2018 (73 attendees)
 - Four (4) Community Outreach Meetings: April - May 2018 (416 attendees)
 - Two (2) Leadership Workshops led by Sup. Janice Hahn
- **580 comments received**
 - Alternative 1 & Alternative 3 received most support
- **Other Comments**
 - Limited support for Lawndale Station
 - Property Values & Impacts
 - Safety & Security
 - Parking



Conceptual Sketch: Alt 1 ROW Undercrossing



Conceptual Sketch: Alt 3 Hawthorne to 190th

