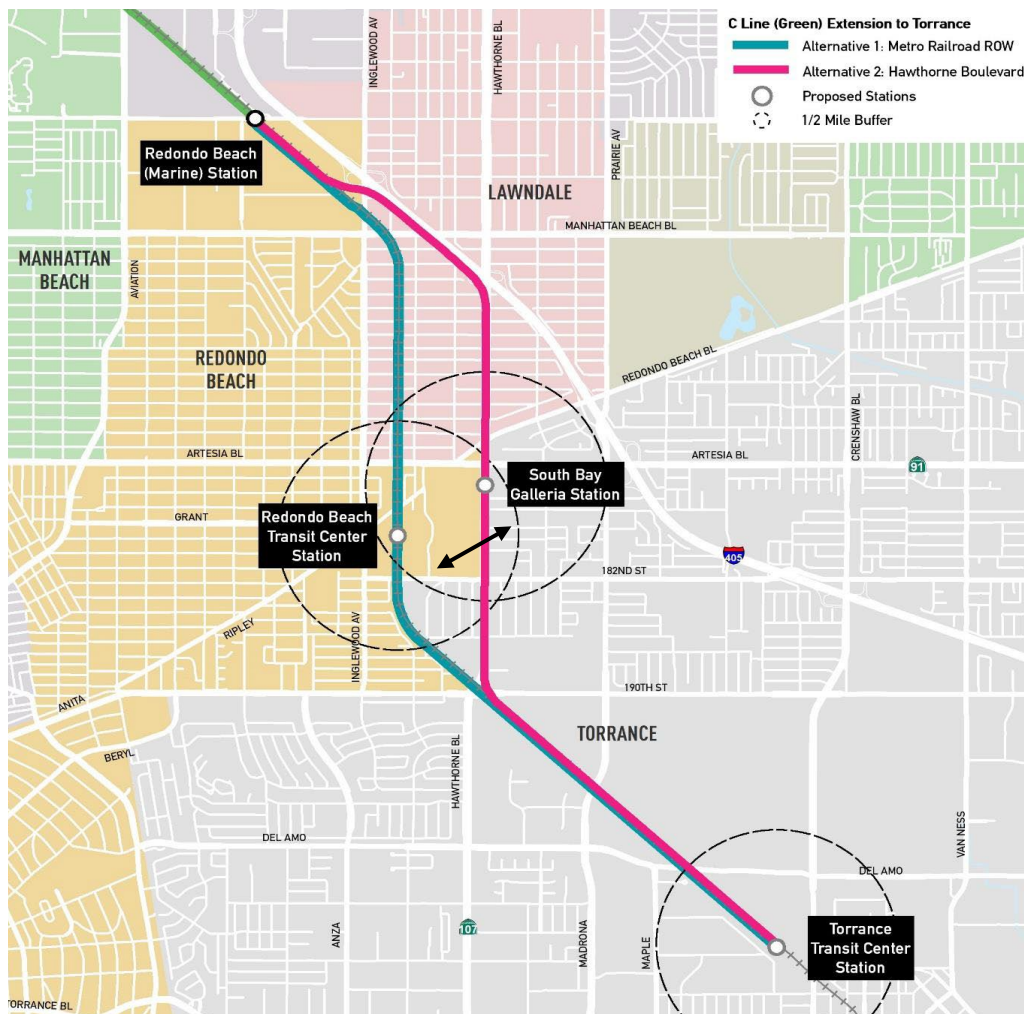


## C LINE EXTENSION TO TORRANCE PROJECT

### Metro Cost Benefit Analysis (CBA)

In July 2025, the Board adopted a CBA framework for evaluating project alternatives, including assessing the regional economic impacts of investment and identifying benefits relative to the costs of investment. The CBA includes two components – Weighted Benefits Analysis and Benefit-Cost Ratio – as described below and used to evaluate the Locally Preferred Alternative (LPA), which travels along the Metro-owned Right of Way (ROW) and the Hawthorne Option, which travels along the I-405, Hawthorne Blvd, and Metro ROW, for the C Line Extension to Torrance Project (Project). The evaluation is based on data collected during the environmental review process, including recent cost estimate refinements made in 2025.

*Figure 1. LPA and Hawthorne Option Alignments*



**Weighted Benefits Analysis:** A points-based evaluation comparing the alignments across five goals that are weighted per Metro-adopted CBA methodology. This considers relevant quantitative and qualitative performance indicators (KPIs) within each of the five goals that are scored relative to each other on a 7-point scale with seven being the highest/best performing.

*Table 1. Weighted Benefits Analysis Scores*

Goals	LPA	Hawthorne Option	Key Performance Indicators Evaluated
	Average Score by Goal (Unweighted)		
Mobility & Accessibility (Weight: 40%)	5.7 / 7	5.6 / 7	Travel time, project trips, new riders, travel time savings, connections to transit, proximity to Metro Equity Focused Communities (EFC), proximity to educational facilities
Safety & Health (Weight: 15%)	6.2 / 7	5.3 / 7	Light rail grade separation, freight crossing safety improvements, improved access to healthcare, exposure to noise (light rail proposed, existing freight), quiet zone corridor, new walk/bike paths, proximity to parks and recreational facilities, proximity to Healthy Places Index (HPI)
Environmental Sustainability (Weight: 15%)	5.4 / 7	5.3 / 7	GHG emissions reductions, vehicle trip displacement, net total operational energy, proximity to CalEnviroScreen 4.0 communities, shade preservation, opportunities for pervious surfaces, habitat land avoided
Operational Sustainability & Delivery (Weight: 15%)	6.4 / 7	4.2 / 7	Estimated construction costs, date to anticipated opening, need for additional environmental review and approvals per NEPA, permanent changes to streets and parking, construction disruption to traffic/parking, permanently affected parcels, complexity of coordination for utility relocation and construction, degree of Metro operational and maintenance control
Economic Impact (Weight: 15%)	6.3 / 7	6.8 / 7	Proximity to activity centers, connectivity to housing and neighborhoods, amount of nearby vacant and underutilized buildable area, planned development potential, housing development potential, estimated regional jobs created, estimated regional economic output
Total Weighted Score*	5.9 / 7	5.5 / 7	Project provides significant benefits for both alignment options. LPA performs better than Hawthorne Option.

*\*7-point scale with 7 as the highest/best performing*

The Weighted Benefits Analysis component of the CBA finds that the Project provides significant benefits locally and regionally for both alignment options. The LPA performs better than the Hawthorne Option, with a weighted total score of 5.9 versus 5.5, respectively. Although 85% of the score (4 out of 5 goals) favors the LPA, the difference between the LPA and Hawthorne Option weighted total score is less than a point. This can be attributed to the overall similarities between the two alignments and the proximity of the proposed alignment stations.

**Benefit-Cost Ratio (BCR):** Compares monetized costs of the Project, including capital and operating costs, to the monetized benefits of the Project, including travel time savings, traffic safety, active transportation health benefits, and regional economic benefits over a 20-year operating period. A higher ratio of benefits to costs means that there are more monetized benefits for every dollar spent. However, it is important to note that many costs and benefits cannot be monetized. The results of this analysis are presented in Table 2.

*Table 2. Benefit-Cost Ratio Findings*

Alignment	Benefit Cost Ratio (BCR)*
LPA	11.7
Hawthorne Option	10.0

*\* BCRs are unique to each project and not to be compared across projects, due to specific construction and operation years being considered, travel demand modeling years, and other factors.*

The BCR component of the CBA finds that the regional economic benefits of both alignments are relatively similar -- \$16.4 for the LPA and \$16.2B for the Hawthorne Option in regional gross domestic product (GDP) growth over 20 years, following completion of construction. This similarity is expected, as the mid-line station locations (Redondo Beach Transit Center on Metro ROW and South Bay Galleria Station on Hawthorne Blvd) are close together and the terminus station in Torrance is the same. When all monetized benefits, including GDP benefits, are evaluated relative to costs, the LPA is expected to produce \$11.70 in monetized benefits per dollar invested in the Project over a 20-year operating period, compared to the Hawthorne Option, which produces \$10.00 per dollar invested in the Project.

**Overall Project Benefits:** The CBA shows that the Project, for either alignment, offers significant benefits across the following five indicators:

- **Economy:** Every \$1 of project investment generates ~\$10-12 of monetized benefits over a 20-year period.
- **Mobility:** A 4.5-mile extension will expand access to jobs, communities and schools from some of the furthest reaches of LA County such as Gateway Cities and San Fernando Valley.
- **Safety/Health:** 43,000+ average weekday VMT reduction leads to ~\$12 million in safety benefits (avoided medical costs, vehicle repair costs, etc.).
- **Environment:** Project improves air quality and reduces energy and GHG emissions and energy to meet local and regional climate commitments.
- **Operational Sustainability & Delivery:** Builds upon multiple investments already secured (transit centers, freight ROW, grant funding).



#### ECONOMIC BENEFITS

Every \$1 of project investment generates ~\$12 of monetized benefits



#### SAFETY BENEFITS

43,000+ avg. weekday VMT reduction generates ~\$12 million in safety benefits

The “No Project” alternative would forego these benefits and fail to meet regional and local plans and commitments to mobility, air quality and climate, as well as result in the loss of a \$231M state TIRCP grant.