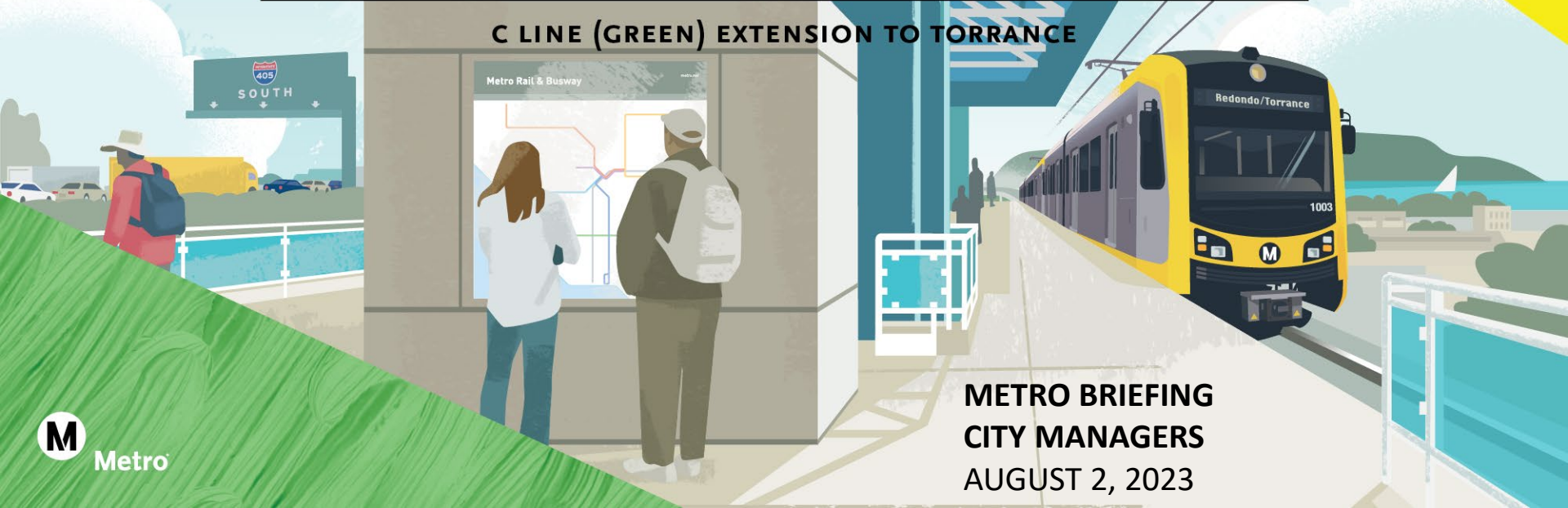




← To Crens

Next stop: more rail in the South Bay.

C LINE (GREEN) EXTENSION TO TORRANCE



METRO BRIEFING
CITY MANAGERS
AUGUST 2, 2023

Meeting Purpose

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- Provide overview of project and status
- Share new information
 - New operating plan and regional and local benefits
 - Community poll
- Understand cities' vision and goals



Project Overview

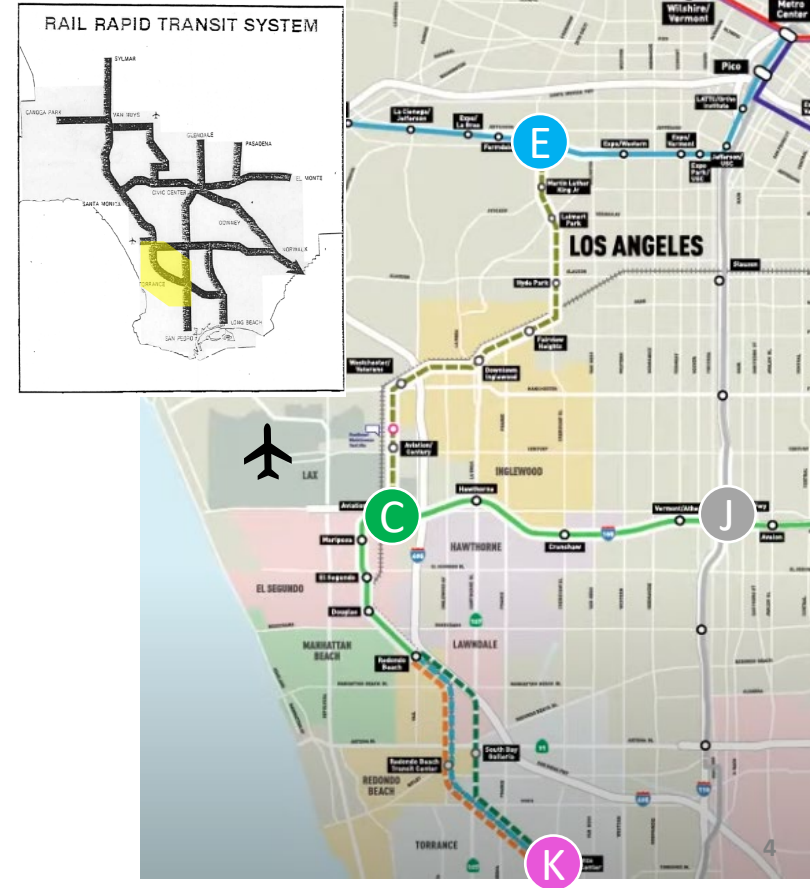
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One of Four Pillar Projects in LA County

- Funded by: Measure M & R, TIRCP Grant, Local Match
- 2030-2033 Measure M Opening Year
- Origins in Proposition A (1980)

Connects South Bay to rail system via K Line

- 4.5-mile light rail extension connecting South Bay
- Two new stations to connect to two bus centers
- One-seat ride to LAX, Inglewood, and Metro E Line
- Projected daily trips: 11,500-15,600
- Travels through Lawndale, Redondo Beach, Torrance



Project Purpose & Benefits

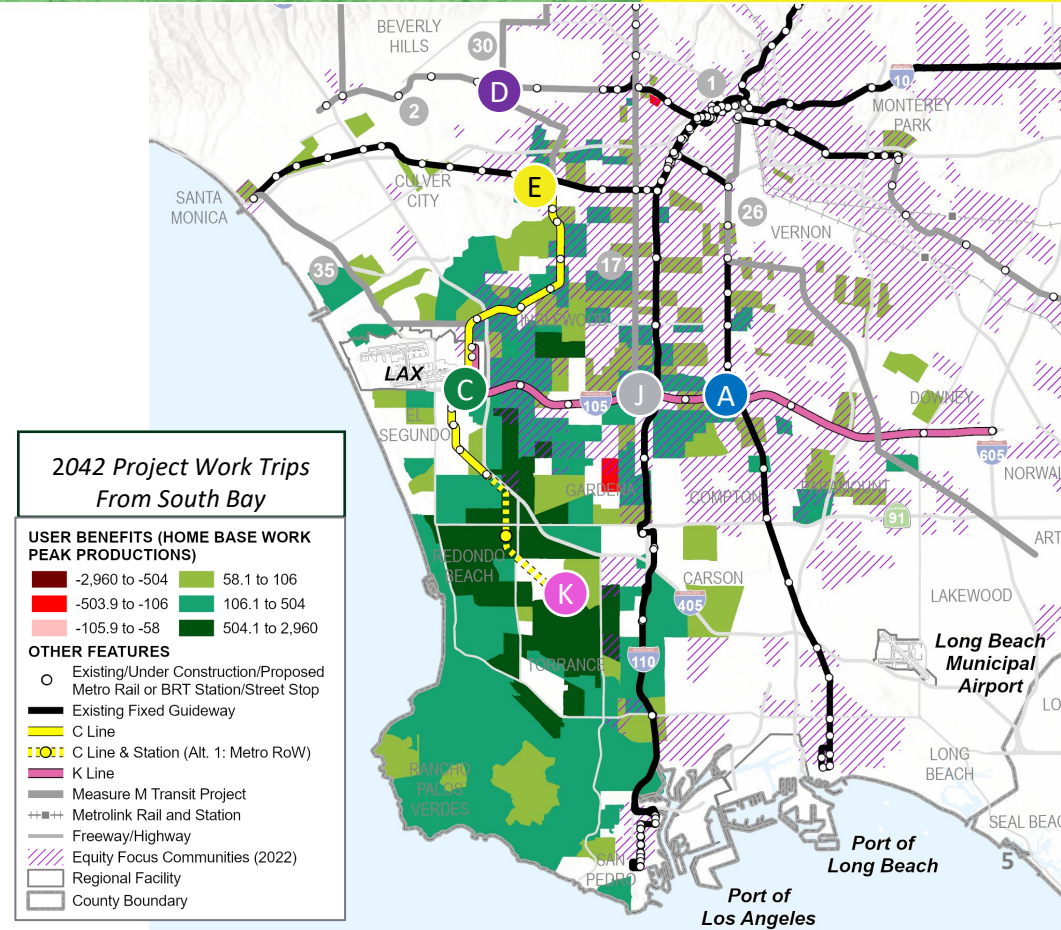
**WORKING
DRAFT**

Improve mobility, reduce travel times and meet travel demand as South Bay grows

- Significant jobs center (jobs projected to grow 2x faster than population)
- Congested area, projected to worsen by 30% in 2045 (SCAG)
- Infrequent bus service

Provide equitable access to regional destinations, jobs, schools, etc.

Reduce air pollution and greenhouse emissions by making transit a viable choice



Access to Regional Connections & Local Bus Centers

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Expo/Crenshaw



Redondo Beach Transit Center



Inglewood Entertainment District (SoFi)



Los Angeles International Airport



Torrance Transit Center



Significant Travel Time Savings

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South Bay	Travel Time By Rail	Travel Time by Car (Afternoon Peak)
LAX (AMC/96th)	19 minutes	30-66 minutes
Downtown Inglewood	23.5 minutes	25-55 minutes
SoFi Stadium	28 minutes	25-55 minutes
Expo Line (Expo/Crenshaw)	34.5 minutes	30-66 minutes
Downtown LA (7th/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.



Engagement & Poll

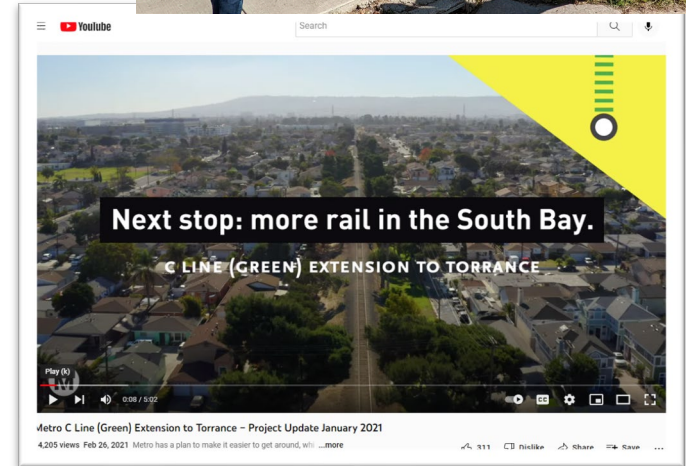


Metro

Extensive Outreach (2021 to Present)

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- Invested in variety of outreach tools during COVID
- All materials in English and Spanish
- 23,000+ views of videos & 11,000+ views of StoryMaps
- Expanded project noticing to 1-mile area (47,000+ properties)
- 1,800+ people at several rounds of public meetings
- Bus Transit Rider Intercepts: 100+ riders
- Door-to-Door Business Outreach: 520+ businesses
- Multiple pop-up events and briefings



Stakeholder Input Themes

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Noise and
Vibration



Property Impacts
and Values



Traffic and
Parking



Community and
Visual Aesthetics



Public
Safety



Landscape/
Greenspace



Stations and
Connectivity



Ridership

- Conducted poll in April/May 2023 of residents in Lawndale, Redondo Beach & Torrance
- Randomized dialing of cell and land lines
- Metro not revealed as sponsor of poll
- Sample Size: 670 participants
 - Torrance: n=249
 - Redondo Beach: n=200
 - Lawndale: n=221



Familiarity w/ Project

How familiar are you with Metro's Green Line (also called "C" Line) light rail extension from Redondo Beach to Torrance?

- Very familiar
- Somewhat familiar
- Never heard of it

Support for Project

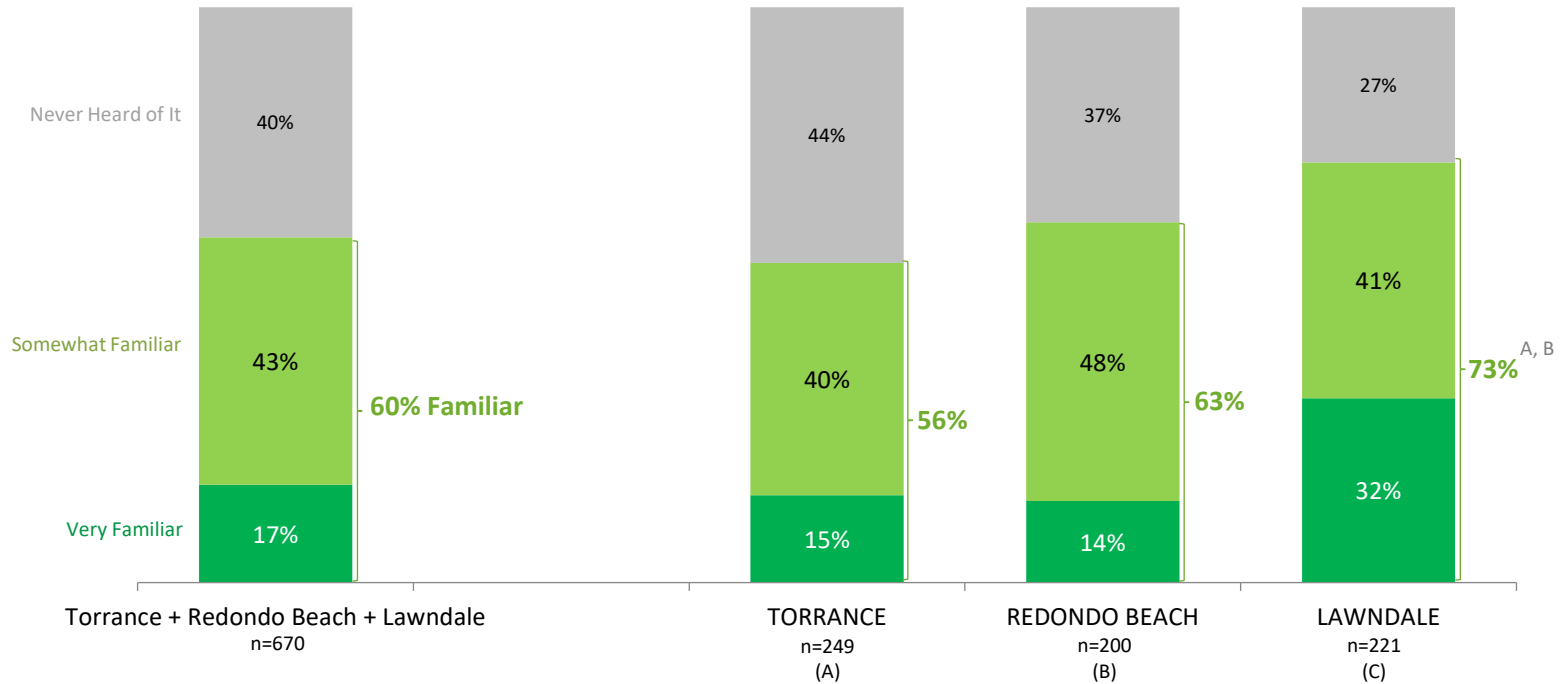
How much do you support or oppose Metro's Green Line (also called "C" Line) light rail extension from Redondo Beach to Torrance?

- Strongly support
- Somewhat support
- Neither support nor oppose
- Somewhat oppose
- Strongly oppose

Demographics

- Gender
- Age
- Race & Ethnicity
- Income
- Employment
- Education
- Car Ownership
- Commuting Mode
- Zip Code
- Metro Riding Frequency

% Familiar With C Line (Green) Extension to Torrance

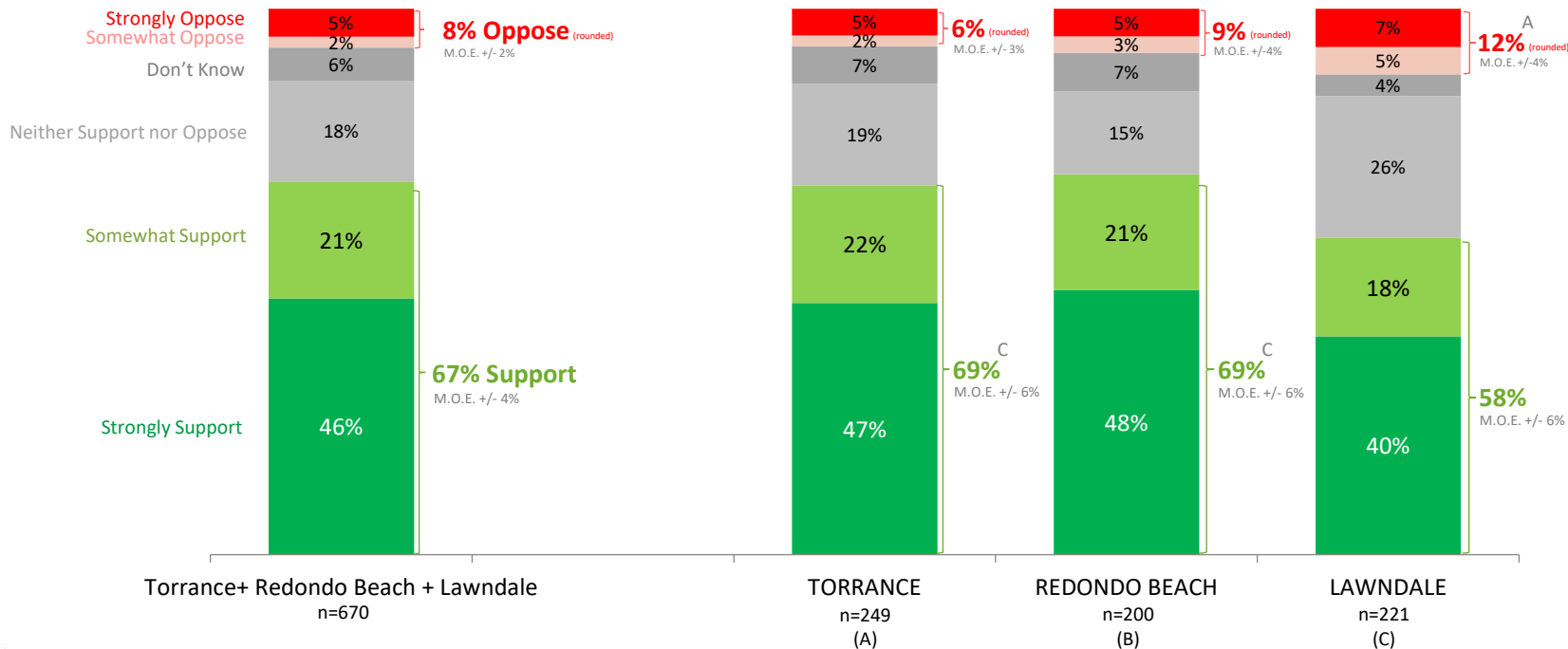


Q: How much do you support or oppose Metro's Green Line (also called "C" Line) light rail extension from Redondo Beach to Torrance?
 Combined three cities column is weighted at the following 2021 ACS 5-Year Estimate: 67% Torrance, 27% Redondo, 12% Lawndale
 Capital letters (e.g., A, B) indicate significant difference at 95% confidence

Majority of residents support the C Line Extension

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% Support/Oppose C Line (Green) Extension to Torrance



Q: How much do you support or oppose Metro's Green Line (also called "C" Line) light rail extension from Redondo Beach to Torrance? / Combined three cities column is weighted at the following 2021 ACS 5-Year Estimate: 67% Torrance, 27% Redondo, 12% Lawndale / Support question asked of all respondents, regardless of familiarity / Capital letters (e.g., A, B) indicate significant difference at 95% confidence / NET Oppose may appear different than Strongly + Somewhat due to rounding Margin of Error (M.O.E) based on 95% confidence.

- 60% of residents are **familiar** with the Project.
- 67% of residents **support** the Project.
- 8% oppose—with a margin-of-error of +/- 2%
- Support for Measure M (ballot measure) in 2016:
 - Lawndale: 73% of voters
 - Redondo Beach: 60% of voters supported
 - Torrance: 55% of voters supported

Draft EIR: Comparison of Alignments & Alternatives to Project

Alignments & Alternatives Studied in Draft EIR

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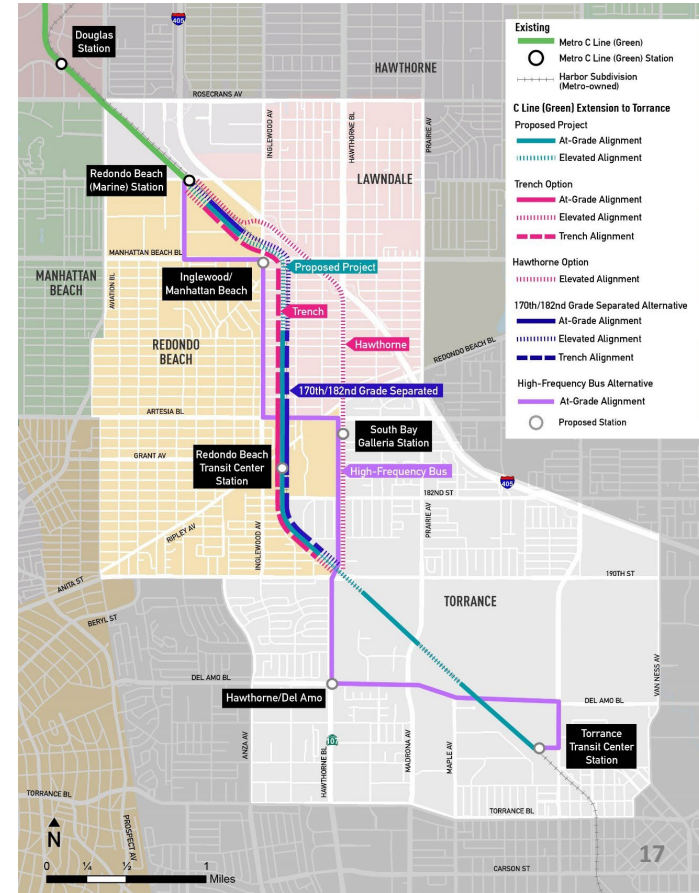
Draft EIR evaluates three light rail alignments:

1. Metro ROW (Elevated/Street Level)
2. Trench Option
3. Hawthorne Blvd Option

South of 190th Street, all three alignments are the same.

Draft EIR includes three Alternatives to Project to avoid or lessen environmental impacts generated by Project:

1. Metro ROW 170TH/182ND St Grade Separated Light Rail Alternative (Metro ROW “Hybrid”)
2. High Frequency Bus
3. No Project



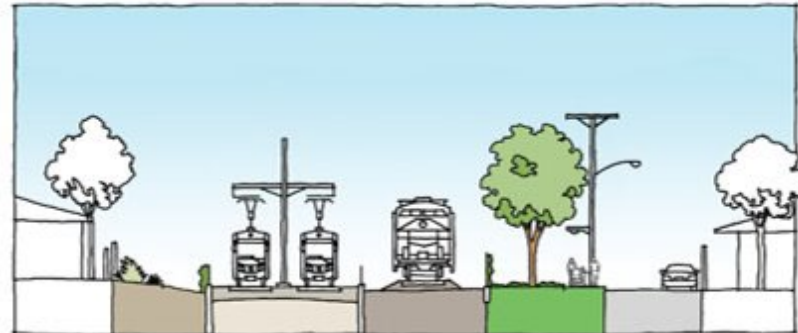
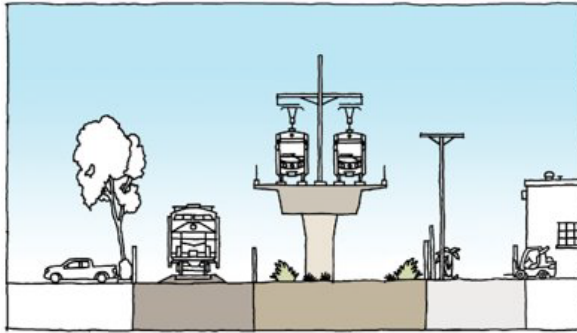
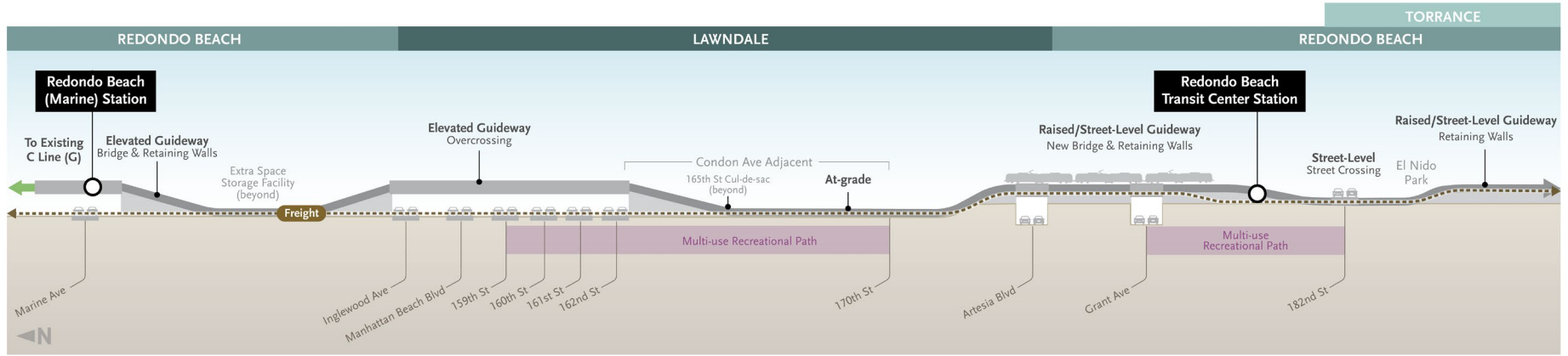
Community Oriented Design & Mitigations

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Metro ROW Elevated/At-Grade

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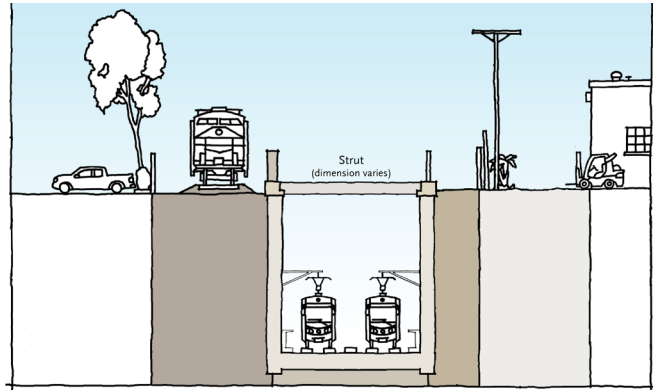
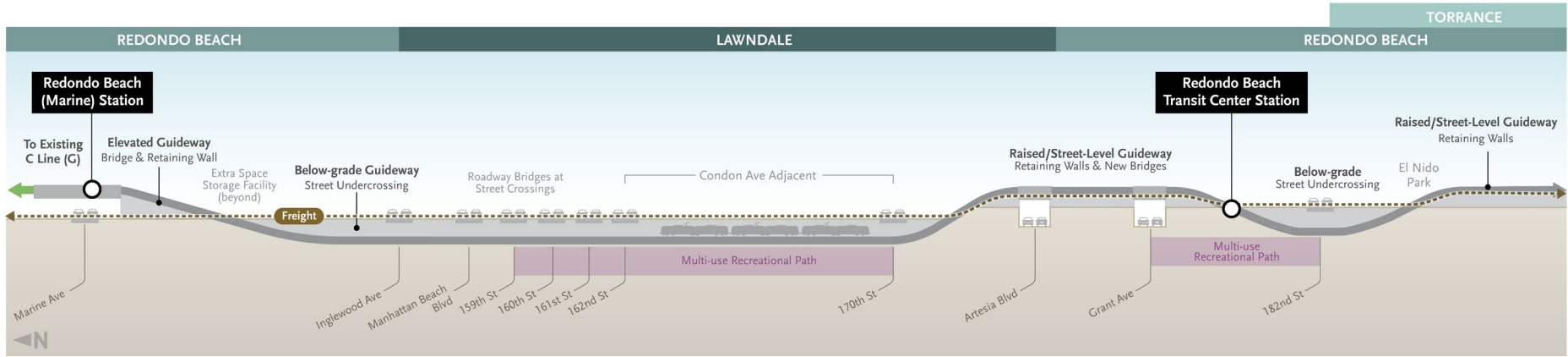


- Uses Metro ROW for entire length
- Directly connects to new bus centers
- Adds 3 new neighborhood paths (one per city)
- Upgrades freight crossings to be “quiet zone ready” to reduce noise/vibration and enhance safety
- Includes sound walls and special trackwork to mitigate light rail noise
 - Significant long-term noise impacts at 170th St
- Concerns of delays at 182nd Street (emergency responder route)
- Concerns of freight shifting closer to senior living community near Grant Ave



Trench Option (Metro ROW)

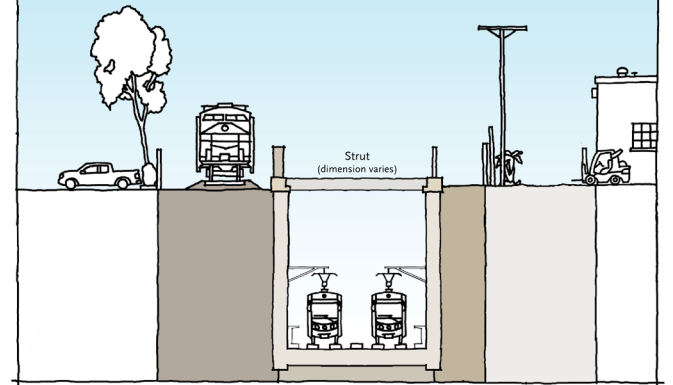
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Trench Option (Metro ROW)

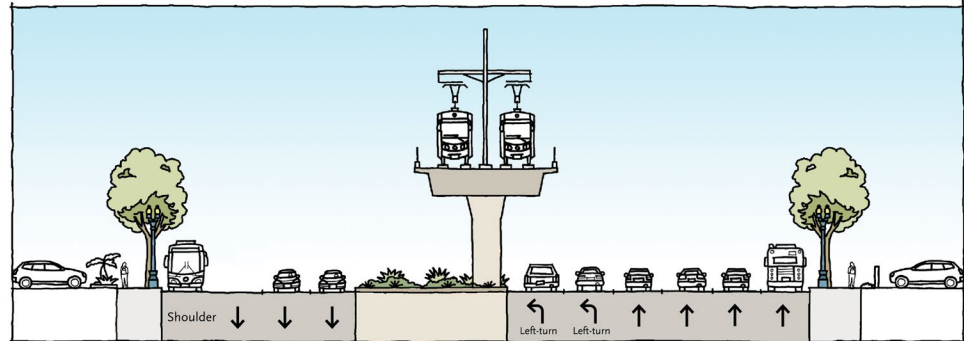
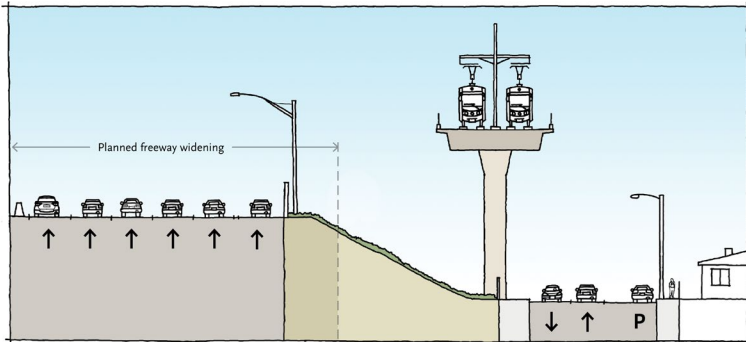
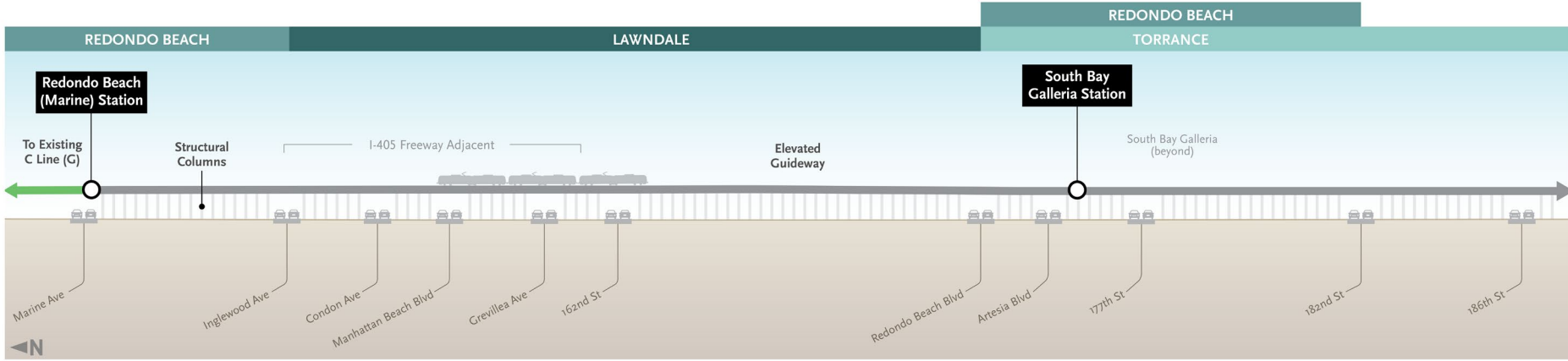
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- Uses Metro ROW for entire length
- Light rail is separated from street (1.8-miles of trench)
- Directly connects to new bus centers
- Adds 3 new neighborhood paths along ROW (one per city)
- Provides "quiet zone ready" freight improvements
- Includes sound walls and special trackwork to mitigate light rail noise. No significant long-term noise impacts.
- Results in air quality impact during construction
- Requires deep trench in north due to utility conflicts
- Requires sump pump due to high ground water
- Complex construction with secant walls near residential and freight. Longest construction period.



Hawthorne Option (Caltrans ROW)

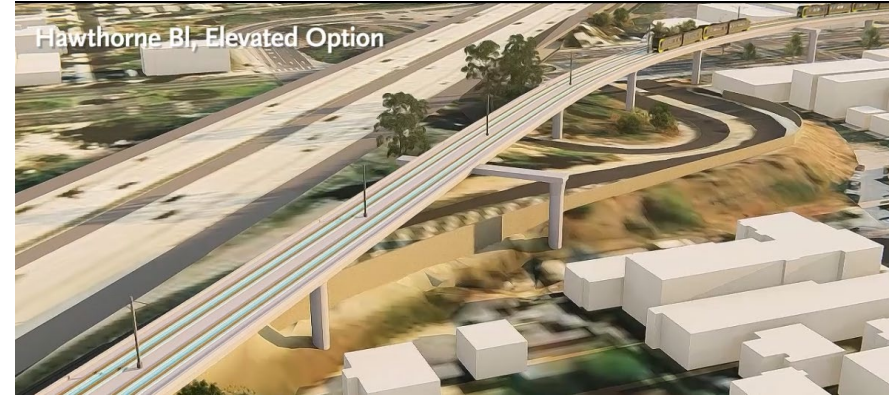
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Hawthorne Option (Caltrans ROW)

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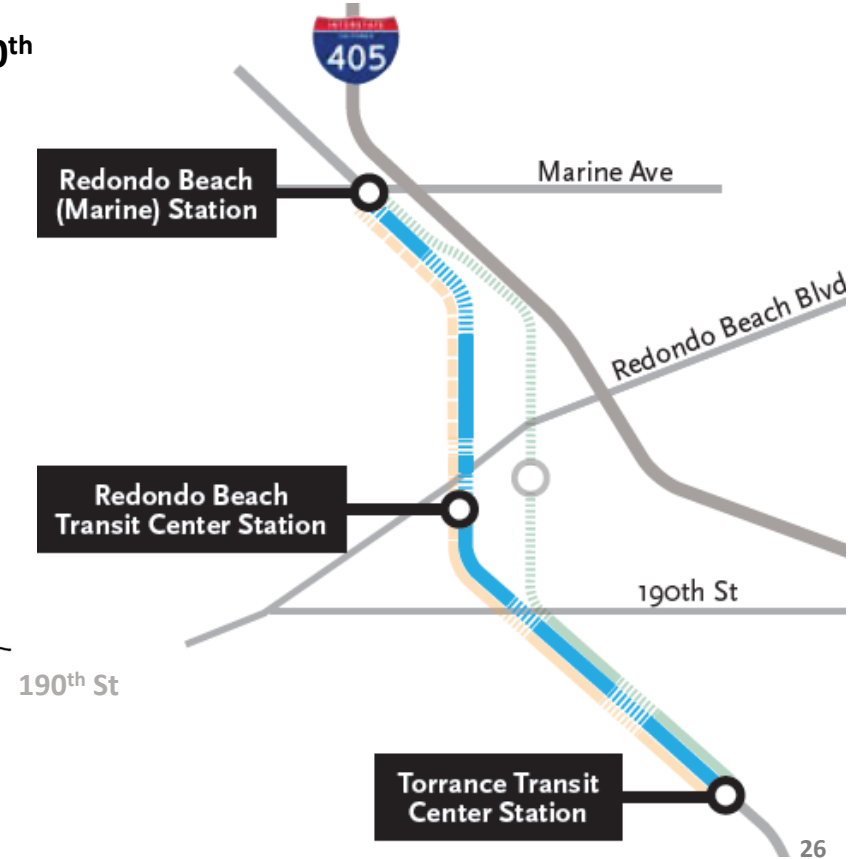
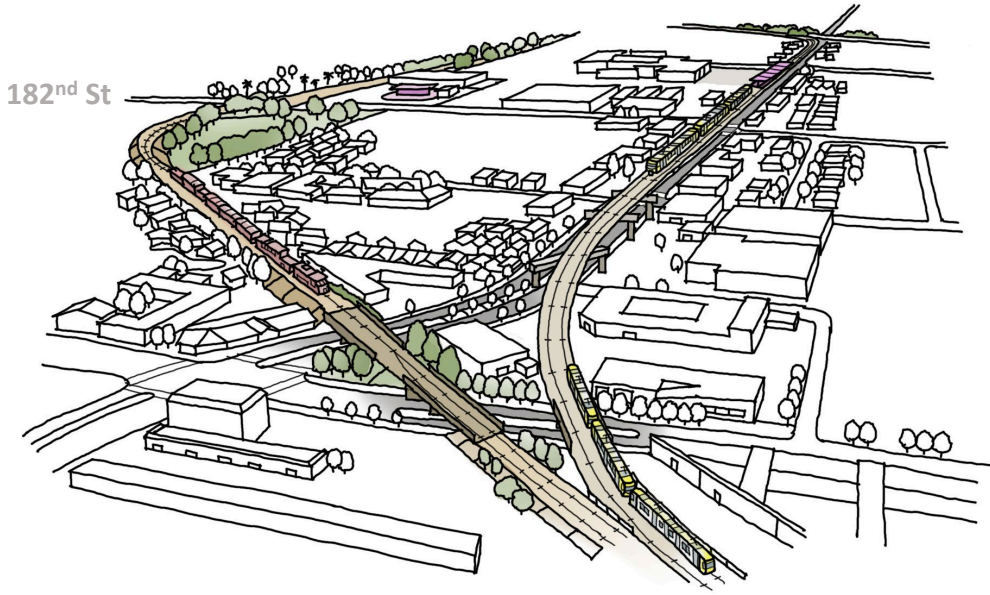
- Travels within Caltrans ROW along I-405 and Hawthorne Blvd.
 - Encroachment approval not secured
 - NEPA clearance required (2+ years)
- Light rail is fully separated from street
- Highest # of property acquisitions
- Major utility relocations (power lines, storm drain)
- Lane closures during construction (5-7 years) affecting:
 - 170+ businesses along corridor
 - 70,000 vehicles trips/day
- Lacks direct connection to RBTC
- Loss of on-street parking (~20 spaces)



Southern Segment of Project Area

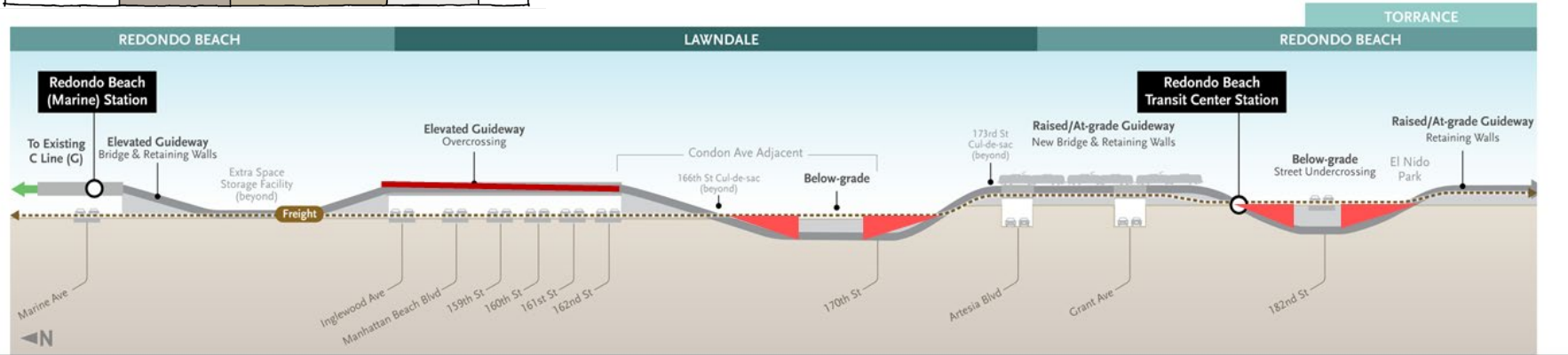
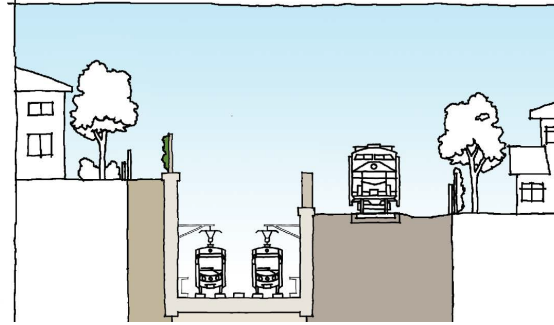
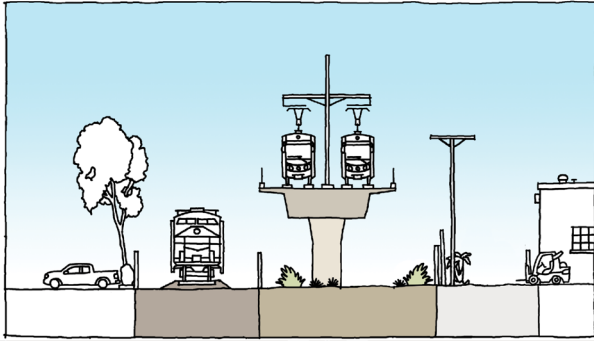
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All Alignments travel along Metro ROW south of 190th Street to Torrance Transit Center



Metro ROW "Hybrid" (Alternative to Project)

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170th St

182nd St



Metro ROW “Hybrid” (Alternative to Project)

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- Travels along Metro ROW for entire length with direct connections to new bus centers
- Includes 3 new walking paths, “quiet zone ready” improvements, sounds walls and noise mitigations
- Recommends two grade separations at 170th and 182nd to:
 - Eliminate significant long-term noise impacts at 170th St.
 - Avoid delays to emergency responders at 182nd St.
 - Eliminate shift of freight towards senior living community near Grant Ave
 - Enhance safety at rail crossings along school routes
 - Improve operations with fully grade separated light rail line

Not to Scale

TORRANCE

REDONDO BEACH

LAWNDALE

REDONDO BEACH

Redondo Beach
(Marine) Station

To Existing
C Line (G)

Elevated Guideway
Bridge & Retaining Walls

Extra Space
Storage Facility
(beyond)

Freight

Elevated Guideway
Overcrossing

Condon Ave Adjacent
165th St Cul-de-sac
(beyond)

At-grade

Raised/Street-Level Guideway
New Bridge & Retaining Walls

Redondo Beach
Transit Center Station

Street-Level
Street Crossing

Raised/Street-Level Guideway
Retaining Walls

Inglewood

Manhattan Beach

159th

160th

161st

162nd

170th

Artesia

Grant

182nd

El Nido
Park

High Frequency Bus Alternative

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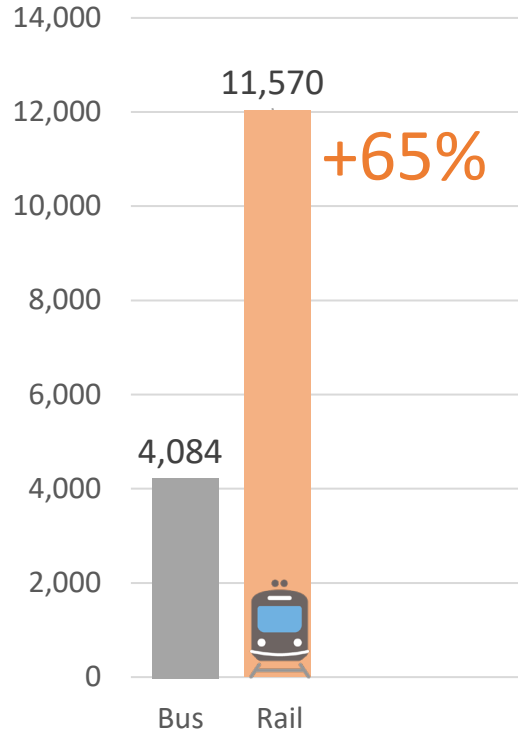
Overview

- Connects Redondo Beach (Marine) Station to Torrance Transit Center
- 4 stops
- 10-minute headways at peak
- Street-running w/ signal priority, pending local approvals

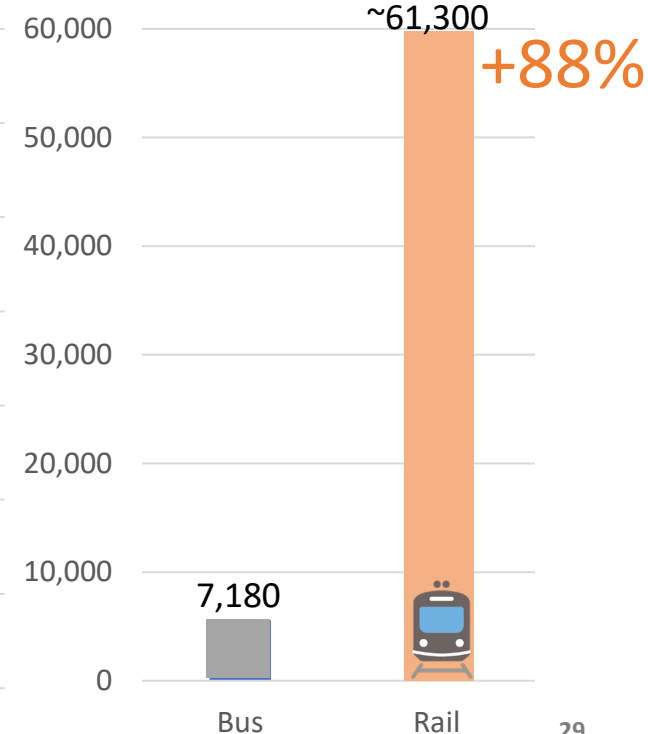
Findings

- Rail outperforms bus

Daily Project Trips



Daily VMT Savings



No Project Alternative

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- Does not meet project need and objectives
- Inconsistent with local and regional plans for rail
- Potential loss of \$231M TIRCP Grant
- Loss of ridership: 3.6 million project trips/yr
- Reduced access for 1.49 million new riders/yr
- Fails to reduce 19.5 million VMT/yr
- Fails to reduce GHGs: 2,369.4 MTCO₂e/yr
- South Bay could lose opportunity for future rail
- Significant & unavoidable long-term impacts:
 - Transportation
 - Energy
 - Land Use
 - Air Quality & GHG emissions



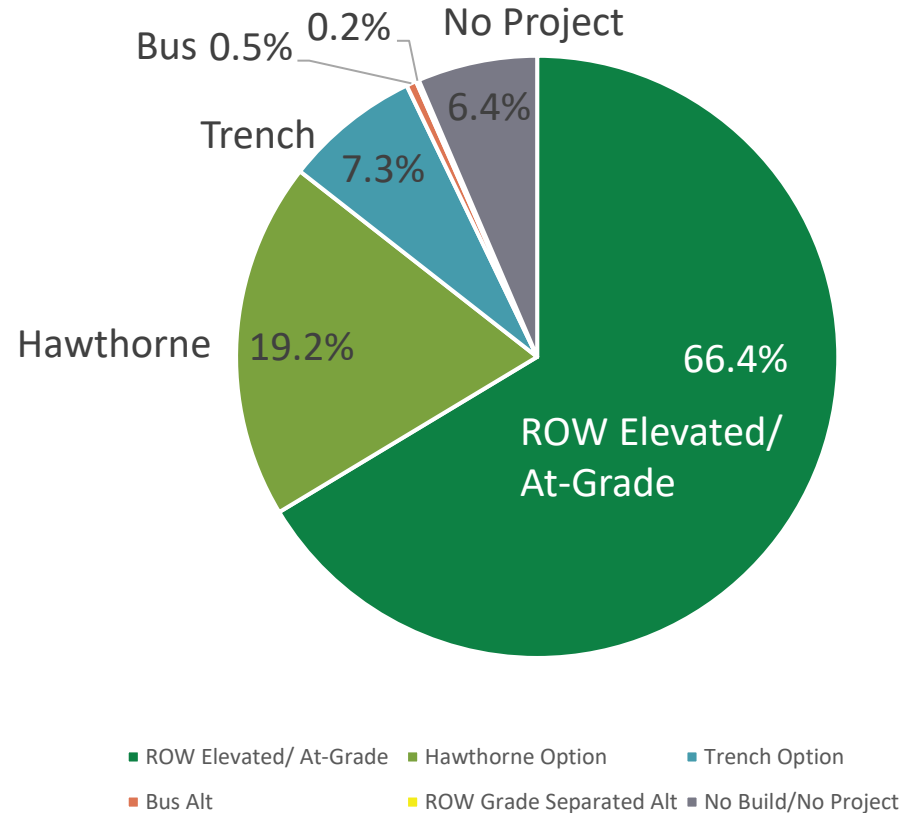
DEIR Comments Summary

Received 2,200+ comments

- 1,857 individuals
- ~13% address Draft EIR or environmental issues

1,850 comments are alignment preferences

- 1,228 ROW Elevated/ At-Grade
- 355 Hawthorne Option
- 135 Trench Option
- 119 No Project Alt
- 10 High Frequency Bus Alt
- 3 Metro ROW Hybrid Alt



Project Schedule Comparison

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Project Schedule*	2023	2024	2025	2026	2027	2028	2029	Measure M (2030-2033)				2034	2035	2036
								2030	2031	2032	2033			
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

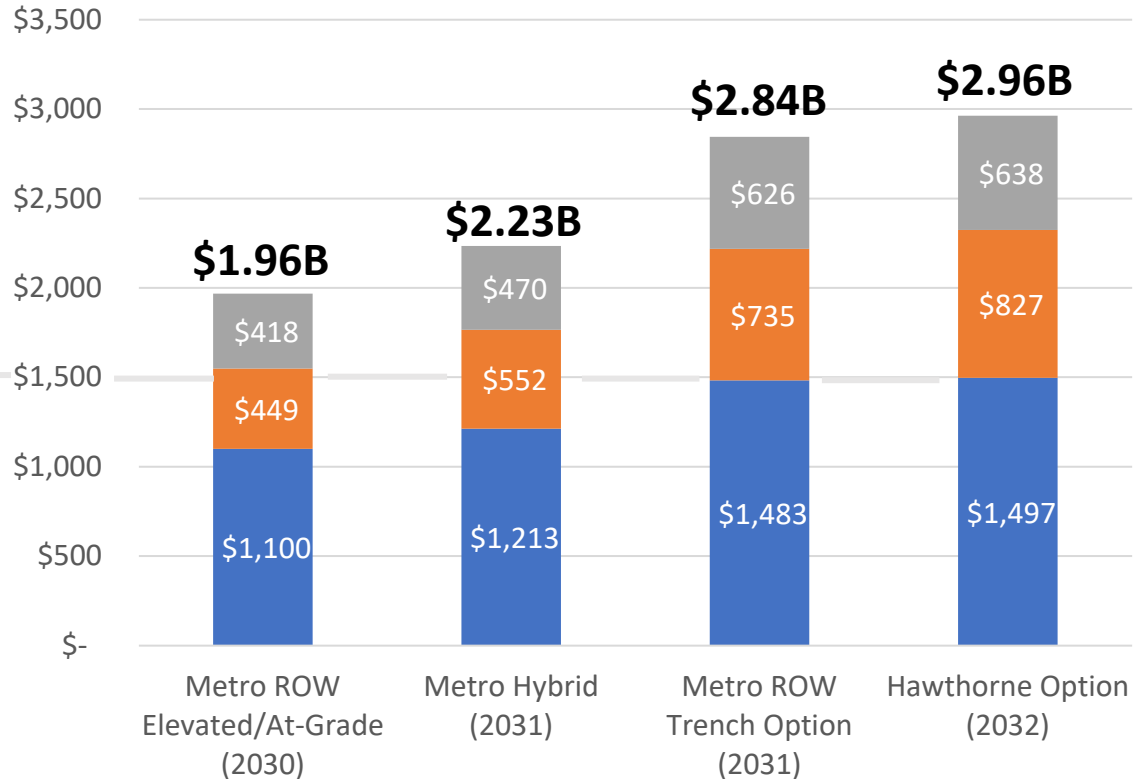
- Construction schedule includes 25% contingency per FTA between start of final design and start of operations.
- Current construction schedule is unconstrained by funding.
- A funding plan and updated construction schedule will be prepared after the Metro Board selects a Locally Preferred Alternative to advance into final design and construction.

Construction Cost Comparison

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**Secured Funds in
\$2031 = ~\$1.5B**

Follows FTA Guidance
Based on 15% Design
Blue= 2022\$ Costs
Orange= Escalation 3.5%
Grey = Contingency (40%)
Escalation is set to midpoint of construction,
which varies by alignment.



Cost estimate is assigned an accuracy range with upper limit of 30%, based on industry best practices. As design advances, cost estimates will be updated.

Funding Sources Secured	Funding Amount
Measure R (2008)	\$272 million
Measure M (2015)*	\$619 million
TIRCP Grant (2018)	\$231 million
3% Local Match Requirement Current estimate based on 15% design for Metro ROW Elevated/At-Grade. Local contribution to be established at 30% design.	\$59 million
Total	\$1.18 billion
Total Escalated to 2031 (mid-point of construction)	\$1.55 billion

**Actual funding amount for Measure M will depend on when Measure M is expended and the actual increase in sales tax.*

Discussion & Next Steps

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WE
ARE
HERE

Jan

Feb

March

April

May

June

July

August

Fall

**Released Draft EIR &
Technical Reports**
61-Day Comment Period
With 5 Public Hearings

Review Comments & Survey Data
Prepare Staff Recommendation
Stakeholder Briefings

Metro
Board



Project Contact Information

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Metro.net/clineext



[@metrolosangeles](https://twitter.com/metrolosangeles)



[losangelesmetro](https://www.facebook.com/losangelesmetro)



Bit.ly/cletstory (Storymap)



Bit.ly/cletvideo (3D Video)



Metro.net/clineext/#documents (DEIR & Project Materials)