

Slauson/A Line to LA Union Station Study

Southeast Gateway Line



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Arts District Business Improvement District
Downtown Industrial Business Improvement District
El Pueblo De Los Angeles Commission
Japanese American National Museum
Little Tokyo Business Association
Little Tokyo Community Council
Little Tokyo Historical Society
Little Tokyo Stakeholder Meeting
Little Tokyo Towers
Los Angeles River Artists and Business Association
Stakeholder Working Group
Solutions Alameda Coalition and Property Owners (Various)

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Acronyms and Abbreviations

ACRONYM	DEFINITION
BRT	Bus Rapid Transit
CBO	Community-Based Organization
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FTA	Federal Transit Administration
LA	Los Angeles
LADOT	Los Angeles Department of Transportation
LAUS	Los Angeles Union Station
LA ART	Los Angeles Aerial Rapid Transit
Link US	Link Union Station
LPA	Locally Preferred Alternative
LRT	Light-Rail Transit
Metro	Los Angeles County Metropolitan Transportation Authority
MWD	Metropolitan Water District
NEPA	National Environmental Policy Act
ROW	Right-of-Way
SGL	Southeast Gateway Line
TBM	Tunnel Boring Machine
WSAB	West Santa Ana Branch
YOE	Year of Expenditure

Executive Summary

Background

The Southeast Gateway Line (SGL)¹ (Project) is a proposed light-rail transit (LRT) line that will connect southeast Los Angeles (LA) County with Los Angeles Union Station (LAUS). Once completed, the alignment would extend approximately 19 miles from the southern terminus at Pioneer Station in Artesia to the northern terminus at LAUS in Downtown Los Angeles. In January 2022, the Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors (Board) identified Alternative 3: Slauson A (Blue) Line to Pioneer Station from the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) as the Locally Preferred Alternative (LPA) for the Project. The Board selected LAUS as the ultimate project terminus and directed Metro staff to identify and evaluate cost-effective options for the alignment north of the SGL Slauson/A Line Station, inclusive of the LAUS Station, the Little Tokyo Station, and the Arts/Industrial District Station. The Final EIS/EIR for the LPA was released to the public on March 29, 2024. The Board approved the LPA and certified the Final EIS/EIR on April 25, 2024. The Federal Transit Administration issued the Record of Decision for the Project on August 23, 2024.

Per the Board's direction, Metro staff have prepared the Slauson/A Line to LA Union Station Study (Study) to evaluate cost-effective options for the approximately 4.8-mile alignment along Alameda Street from LAUS to the Slauson/A Line Station (corridor), inclusive of three proposed stations (LAUS, Little Tokyo, and Arts/Industrial District). Improving the cost-effectiveness of the Slauson/A Line to LAUS corridor would also increase its competitiveness to receive Federal Transit Administration (FTA) New Starts program funding. The baseline alignment evaluated in this Study is shown in Figure ES-1. This is a stand-alone study and does not include the LPA.

¹ The Project was previously referred to as the West Santa Ana Branch Transit Corridor (WSAB). On March 15, 2023, the Metro Board of Directors approved a motion that included a recommendation to rename the Project with more of a local context. Metro launched a renaming campaign in August 2023 to receive community input on names that are representative of the cultural and demographic communities along the alignment. Metro received over 1,200 submissions with over 900 unique name recommendations during the renaming contest. A panel selected the top 12 names for the public voting process, and over 4,500 votes were received. On January 22, 2024, Southeast Gateway Line was unveiled as the new name for the Project. Though WSAB was used throughout the Final Environmental Impact Study/Environmental Impact Report, the Southeast Gateway Line name is being used as the Project advances.

Figure ES-1

SLAUSON/A LINE STATION TO LAUS



Alignment Concepts and Station Refinements

This Study identified two alignment concepts and one design option that include refinements to the vertical profile and cost-effective alignment options from the alternative studied in the Draft EIS/EIR. Refinements to the Slauson/A Line Station to LAUS alignment along Alameda Street considered level of cost-effectiveness, constructability challenges, environmental considerations, and input from directly affected communities and stakeholders.

The Draft EIS/EIR Alternative 1: Los Angeles Union Station to Pioneer Station was used as the baseline for this Study. The portion of Alternative 1 from the Slauson/A Line Station to LAUS proposed an aerial configuration between the Slauson/A Line Station and the Interstate 10 (I-10) freeway, and a primarily underground configuration between the I-10 freeway and LAUS.

The corridor between Slauson/A Line and LAUS was divided into four segments, with breakpoints influenced by corridor features such as proposed station locations, right-of-way (ROW), and existing transportation infrastructure. These segments are described in Section 2 and are as follows: from LAUS to 4th Street; 4th Street to 8th Street; 8th Street to Washington Boulevard; and Washington Boulevard to the Slauson/A Line Station. Physical constraints and engineering challenges were evaluated throughout the corridor.

To meet the goals and objectives of the Study, cost-effective alignment refinements to Alternative 1 from the Draft EIS/EIR vertical profile were identified between 4th Street and Washington Boulevard, illustrated in Figure ES-2.

The overall Project to LAUS exceeds the Measure M budget of \$4 billion and Central City budget allocation of \$400 million in 2015 dollars. As noted in the Final EIS/EIR, the 14.5-mile LPA was estimated to cost approximately \$7.16 billion in year of expenditure (YOE) dollars (approximately \$490 million per mile). The increase in overall cost from previous estimates is largely due to increases in Federal Transit Administration–recommended contingencies, construction cost increases, and higher-than-predicted inflation. In comparison, the potential cost for the 4.8-mile extension from the Slauson/A Line Station to LAUS would be approximately \$8 billion in YOY dollars (approximately \$1.78 billion per mile). This is reflective of the underground alignment from approximately 14th Street and Long Beach Avenue north to LAUS as described in the Draft EIS/EIR.

Figure ES-2

OPPORTUNITIES FOR REFINEMENTS FROM SLAUSON/A LINE STATION TO LAUS

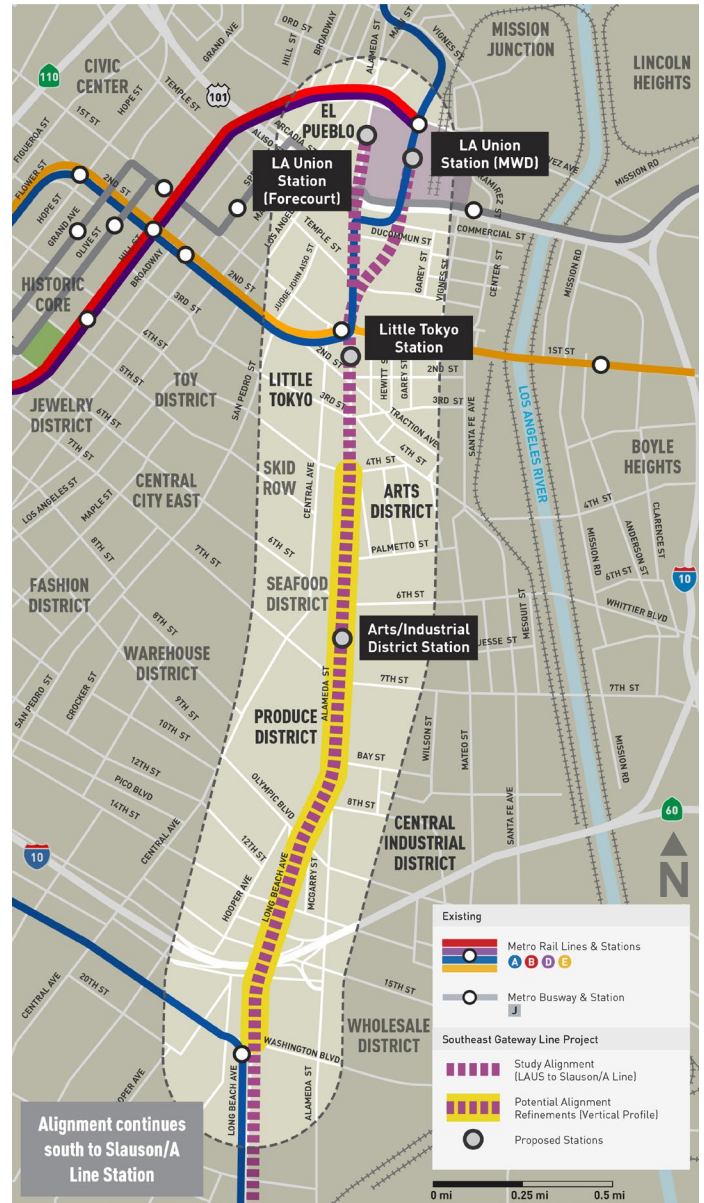
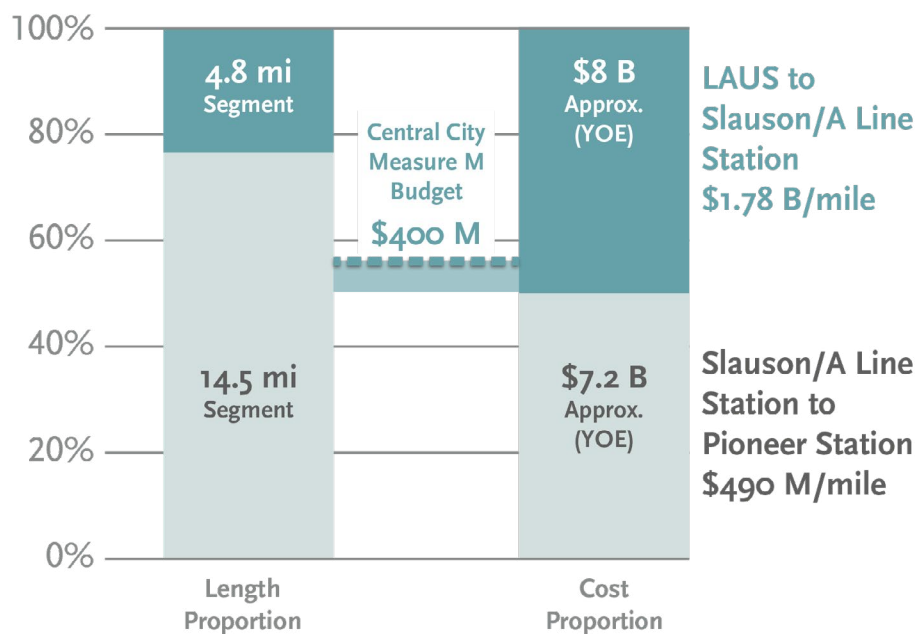


Figure ES-3

Southeast Gateway Line Alignment Cost and Mileage Comparison



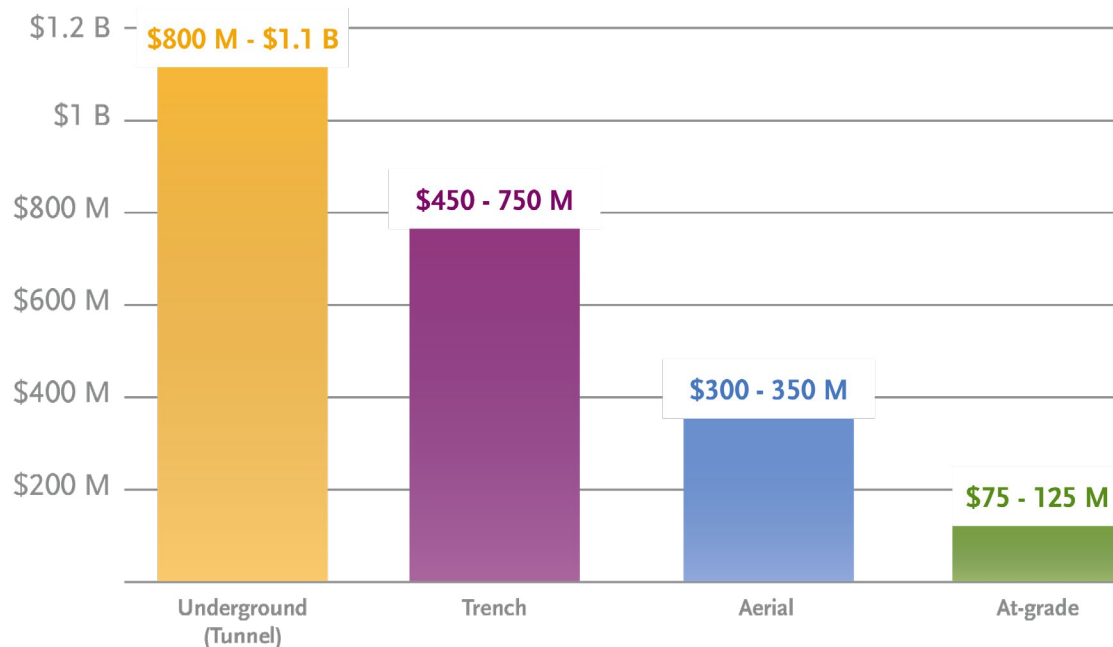
IMPORTANCE OF COST REDUCTION

- > Board direction: “cost-competitive for federal funding”.
- > 4.5 mile segment cost of an all-underground alignment along Alameda is disproportionate at \$8 Billion (YOE).
- > WSAB (SGL) cost* exceeds Measure M Budget.

*Cost presented in Year of Expenditure (YOE) cost may be refined per design refinements.

Figure ES-4

Preliminary Cost Comparison for Alignment Types*



*Cost ranges are approximate, include stations, and vary by project depending on location and constraints based on nationwide examples.

The proportion of mile length to cost of the LAUS to Slauson/A Line alignment as designed under Alternative 1 from the Draft EIS/EIR (i.e., underground from LAUS to 14th Street) is shown in Figure ES-3. Opportunities to reduce the length of underground construction via a tunnel boring machine (TBM) between Slauson/A Line and LAUS have the greatest potential to reduce cost. In descending order of cost, underground construction with a TBM has the highest typical cost per mile, followed by trench, aerial structure, and at-grade (street level) construction as shown in Figure Es-4. At-grade and trench concepts between 4th Street and Washington Boulevard were screened out due to effects of the Project footprint related to ROW acquisition and traffic circulation, as well as low stakeholder support. The Alternative 1 alignment was refined to include two concepts and one design option.

The initial alignment configurations explored are shown in Figure ES-5. These initial configurations studied were screened out due to factors such as ROW constraints, operational constraints, or limited stakeholder support. Configurations were refined through design developed during this Study, in concert with stakeholder input, to result in the alignment concepts advanced and shown in Figure ES-6.

KEY CONSIDERATIONS

- > Provide a 1-seat ride sooner between Downtown (LA Union Station) and Southeast LA County
- > Enhance regional and local mobility for Downtown residents and workers
- > Support economic growth and transit connections envisioned by DTLA 2040
- > Potential to transform Alameda Corridor character
- > Cost competitive for seeking Federal “New Starts” funds

Figure ES-5

Preliminary Study Alignment Configurations

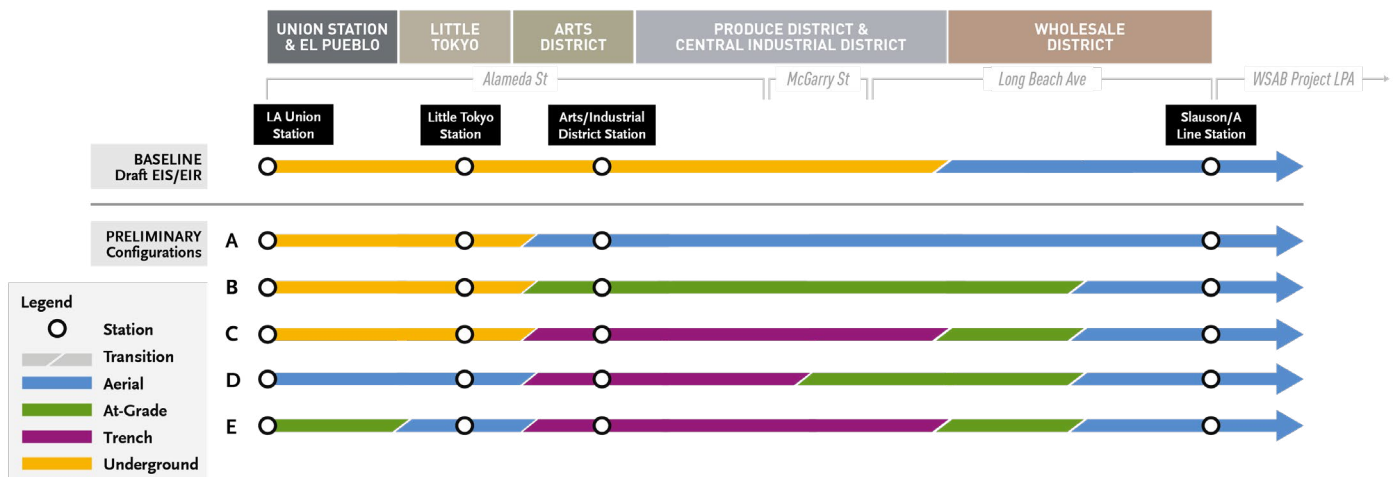


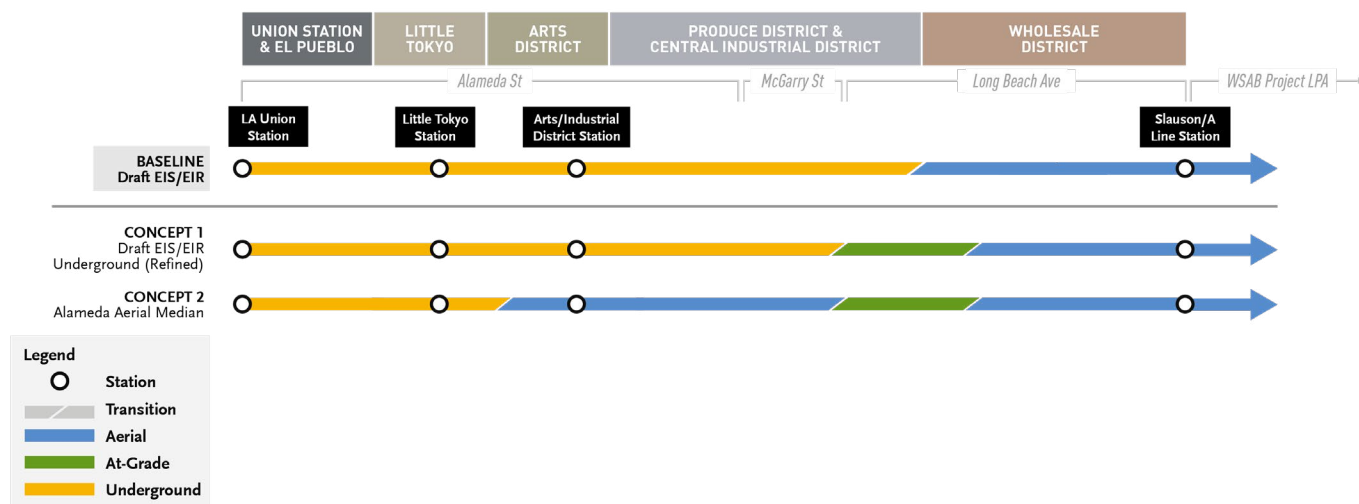
Table ES-1. Concepts and Capital Cost Comparison Summary

ALIGNMENT CONCEPTS	DISTANCE (MILES)				CAPITAL COST IN YOE (BILLION)*	REDUCTION IN COST COMPARED TO BASELINE (BILLION)	% REDUCTION IN COST COMPARED TO BASELINE
	UNDERGROUND	AERIAL	AT-GRADE	TOTAL			
Baseline Draft EIS/EIR Underground <i>Aerial at I-10 Freeway</i>	2.3	2.2	–	4.5	\$8.04 B	–	–
Concept 1 Draft EIS/EIR Underground (Refined) <i>At-grade at I-10 Freeway</i>	2.3	1.9	0.3	4.5	\$7.75 B	\$0.29 B	– 4%
Concept 2 Alameda Aerial Median <i>At-grade at I-10 Freeway</i>	1.2	3.0	0.3	4.5	\$6.72 B	\$1.33 B	– 17%

* Current capital cost YOE timeline is unconstrained by funding and utilizes Measure M timeline of 2041.

Figure ES-6

Alignment Concepts Advanced



Concept 1

Draft EIS/EIR Underground Refined

Concept 1: Draft EIS/EIR Underground Refined is similar to Alternative 1 from the Draft EIS/EIR with an underground alignment constructed via TBM proposed between LAUS and approximately 14th Street (see Figures ES-7 and ES-8). The alignment was revised between 14th Street and Washington Boulevard to an at-grade segment under the I-10 freeway instead of an aerial configuration as proposed in the Draft EIS/EIR (see Figures ES-7 and ES-9). Consistent with Alternative 1 from the Draft EIS/EIR, the Concept 1 alignment would continue on an aerial structure between Washington Boulevard and the Slauson/A Line Station, where it would tie in with the LPA (see Figures ES-7 and ES-10).

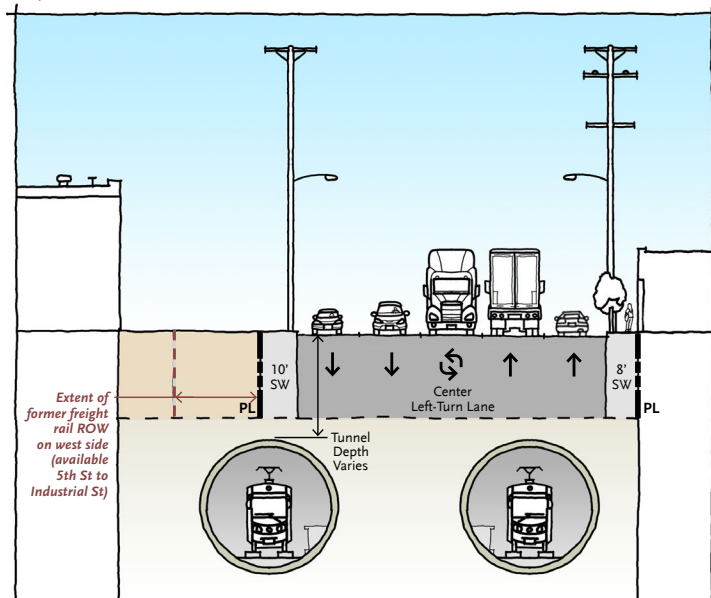
Figure ES-7

Typical Alignment Segments

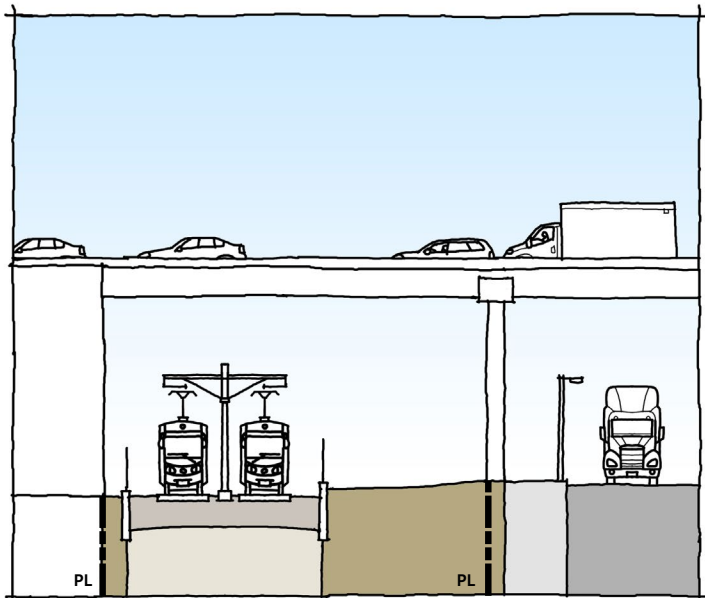
Key Plan



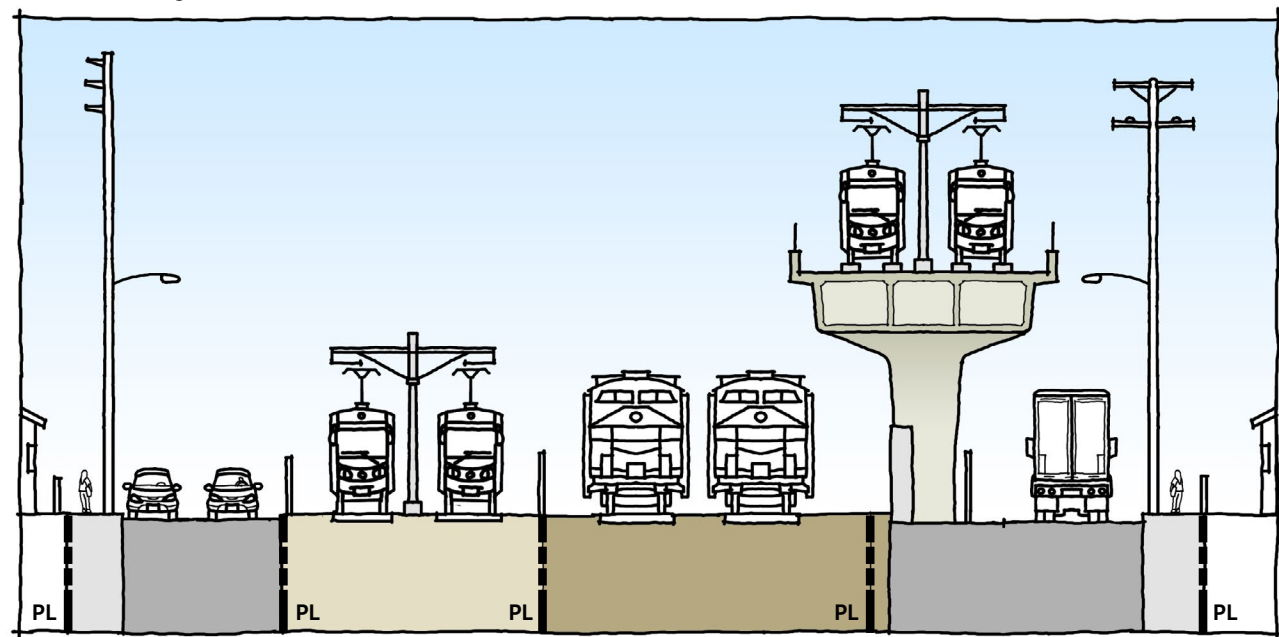
1 Figure ES-8
Alameda St - 4th St to 6th St
 Looking North



2 Figure ES-9
Alameda St - 14th St to 16th St
 Looking North



3 Figure ES-10
Long Beach Av South
 Looking North



Concept 2

Alameda Aerial Median

Concept 2: Alameda Aerial Median proposes the same horizontal alignment as Concept 1 but proposes an aerial structure between 4th Street and approximately 14th Street instead of an underground alignment (see Figures ES-11, ES-12, and ES-13). Similar to Concept 1, Concept 2 is refined from the design of Alternative 1 from the Draft EIS/EIR with an at-grade configuration proposed between 14th Street and Washington Boulevard instead of an aerial configuration as proposed in the Draft EIS/EIR. South of 14th Street, Concept 2 is identical to Concept 1 in which Concept 2 would transition to an at-grade configuration to pass underneath the I-10 freeway, then rise to an aerial configuration over Washington Boulevard until it ties in with the LPA at the Slauson/A Line Station.

Figure ES-11

Typical Alignment Segments

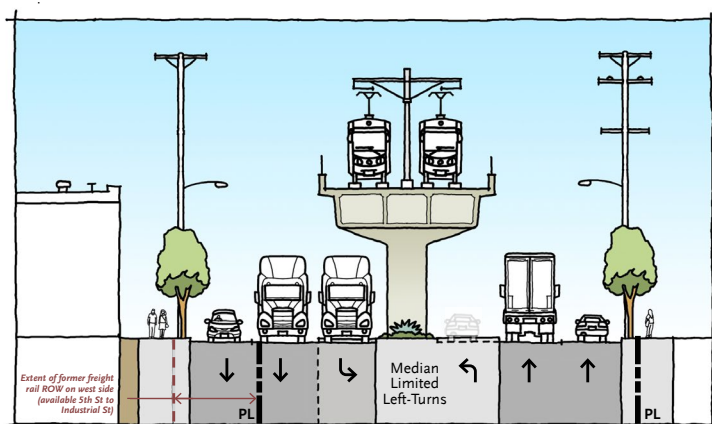
Key Plan



1 *Figure ES-12*

Alameda St - 4th St to Olympic Bl

Looking North



Design Option

Extended Alameda Aerial Median

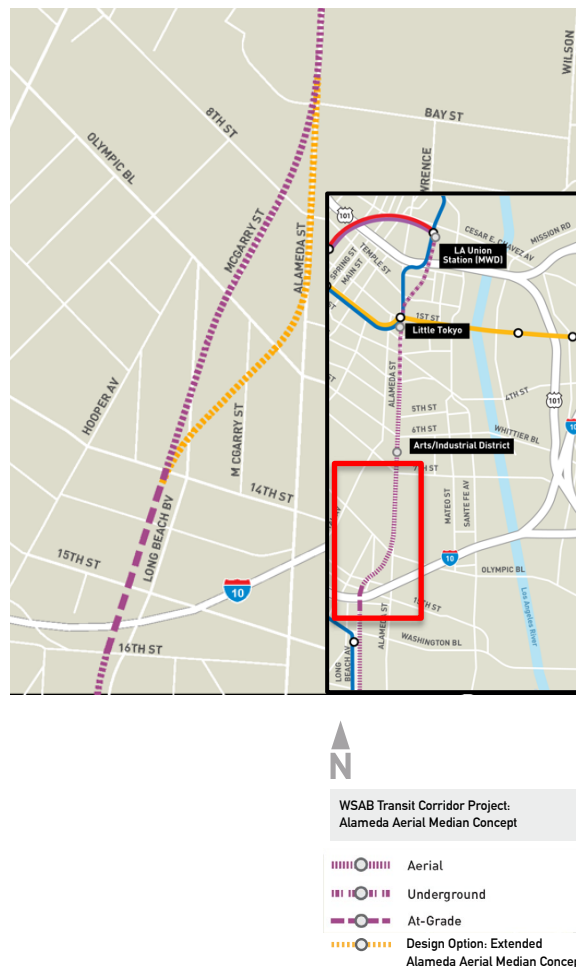
Design Option: Extended Alameda Aerial Median would have a similar alignment as Concept 2 north of Bay Street and south of 14th Street. However, rather than transitioning From Alameda Street to McGarry Street, the Concept 2 Design Option would remain on Alameda Street south of Bay Street before transitioning west to Long Beach Avenue north of Olympic Boulevard (see Figures ES-14). This configuration was identified to avoid effects to stakeholders with access points along McGarry Street. Similar to Concepts 1 and 2, the Concept 2 Design Option would include an at-grade alignment underneath the I-10 freeway.

KEY DIFFERENCES

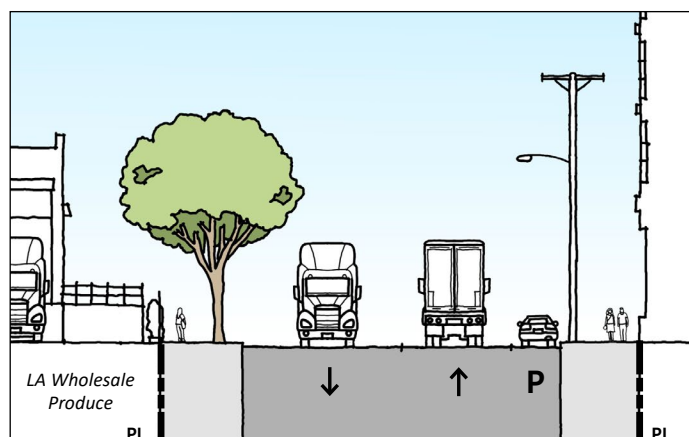
- > Aerial alignment curves at Bay St southwest to cross over McGarry St south of Olympic Blvd.
- > Alignment descends on retained fill after McGarry St to cross Long Beach Ave, continues south on west side of Long Beach Ave.
- > Realignment avoids access and operation impacts to LA Wholesale Produce property.

Figure ES-14

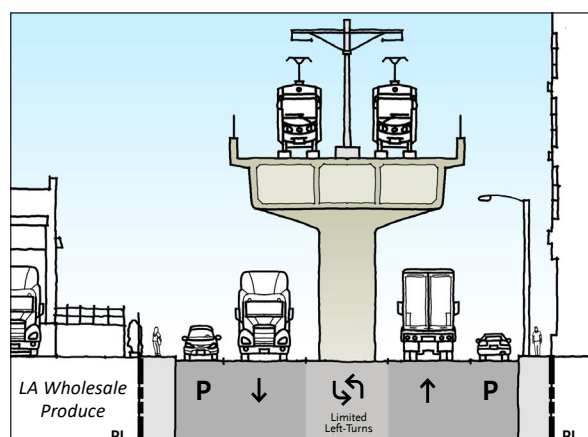
Design Option Alignment Plan



2 Figure ES-13
McGarry St - Existing
Looking North



McGarry St - Proposed Concept
Looking North



Station Refinements

This Study also re-explored the LAUS and Little Tokyo Station locations considered in the Draft EIS/EIR.

- > LAUS: The Metropolitan Water District station option is being advanced at LAUS instead of the Forecourt station option due to higher ridership and fewer conflicts with other projects in the LAUS area (see Figures ES-15 and ES-16).
- > Little Tokyo: The Little Tokyo Station (referred to as Design Option 2 in the Draft EIS/EIR) is being included for all concepts. The layout/configuration of the Little Tokyo Station portals were refined to provide improved connectivity to the Metro A Line and E Line on the west side of Alameda Street and to improve visual considerations on the east side of Alameda Street (see Figures ES-15 and ES-17).

Figure ES-15

Study Alignment

Key Plan



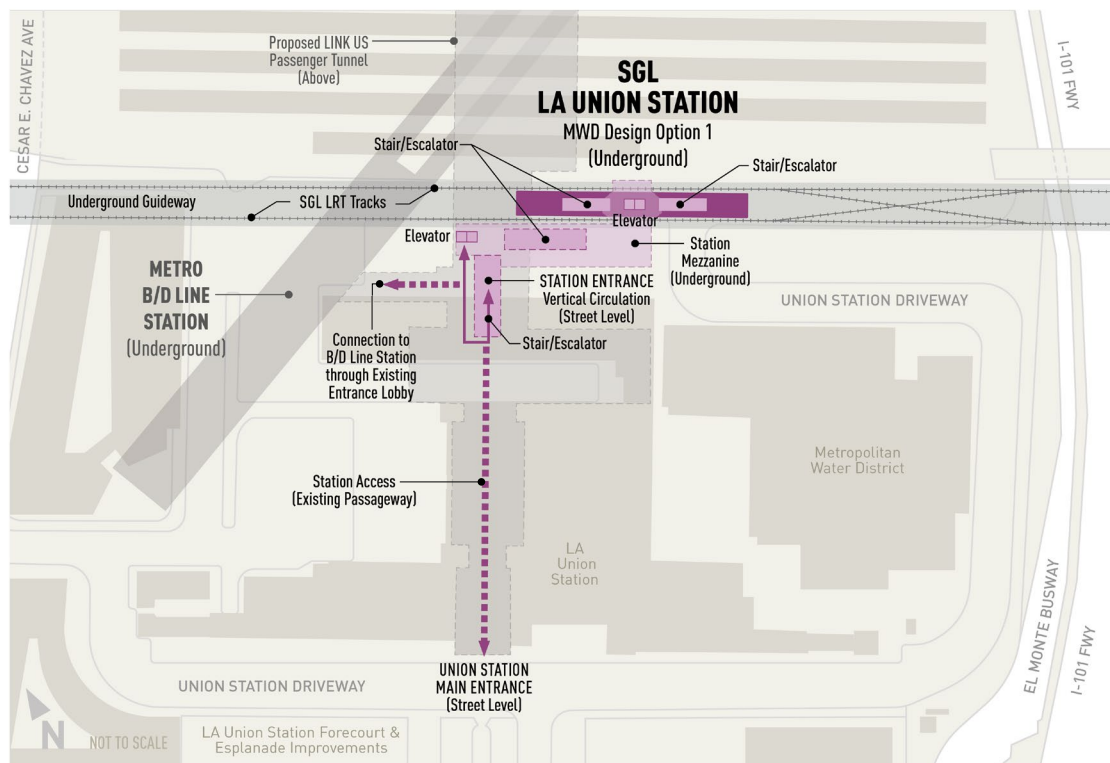
Note: Station locations remain consistent across all concepts (Concept 1 alignment is shown for reference only).

STAKEHOLDER INPUT ON STATION UPDATES

- 1 North entrance shifted closer to Regional Connector station entrance to improve street-level transfer.
- 2 South entrance shifted to Traction Avenue for more direct connection to Arts District and away from residences.

Figure ES-16

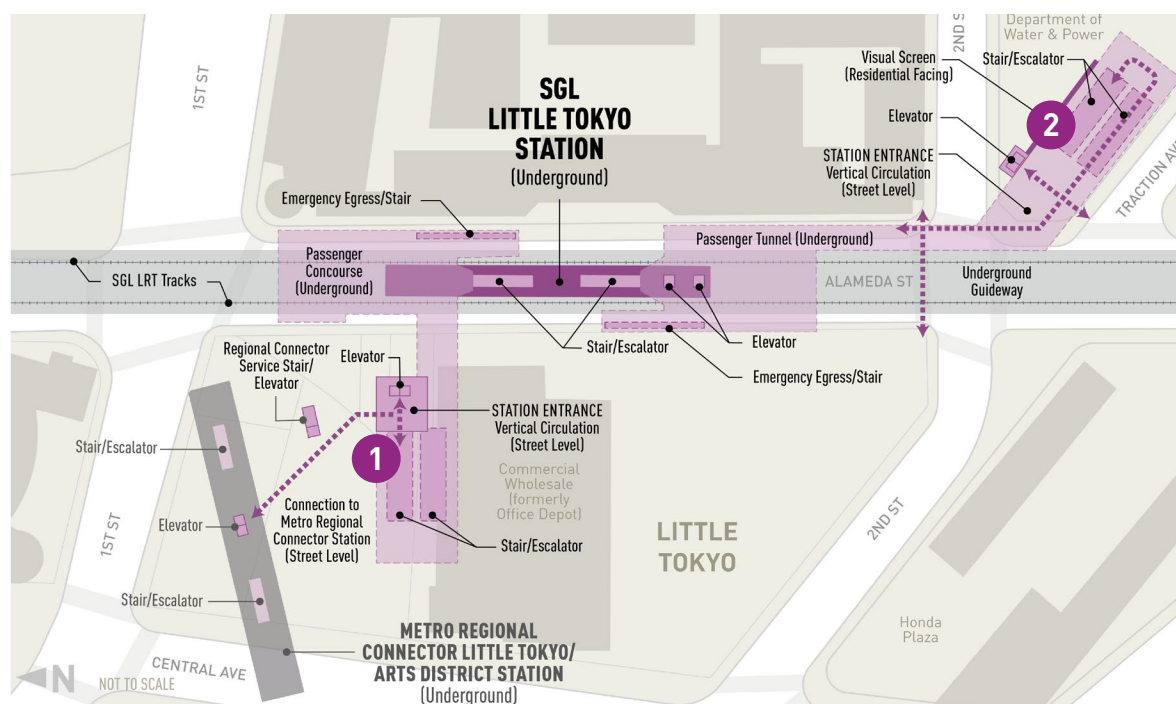
LA Union Station Access Plan Diagram



DEIS/DEIR Option 1 – MWD Station.

Figure ES-17

Little Tokyo Station Access Plan Diagram



Station layout and configuration refined based on stakeholder recommendations.

Stakeholder and Public Engagement

Throughout the development of this study, Metro has coordinated closely with stakeholders and the public to ensure that the design and recommendations reflect community input. This study details the extensive community outreach conducted in support of the study and summarizes feedback received from stakeholders.

In 2022 and 2023, Metro engaged with stakeholder working groups, individual stakeholders, and property owners along Alameda Street. Figure ES-18 summarizes the number of outreach activities conducted. Outreach efforts included setting up booths at community events, collaborating with community-based organizations (CBOs), hosting a study-specific community event, and participating in related SGL meetings supporting the Locally Preferred Alternative (LPA).

The outreach section highlights the key themes and trends identified from community input and preferences shared during stakeholder meetings and property owner briefings regarding underground versus aerial configurations. Some discussions resulted in “No Preference” or no clear consensus; however, the data indicates broad support for an underground alignment. Notably, no stakeholders explicitly favored an aerial configuration over an underground option.

Additional feedback from forums, such as the public community meeting held on July 19, 2023, aligns with these findings. Key topics were raised by stakeholders, property owners, and the public through various channels, including meetings, briefings, letters, and comment cards—common concerns focused on potential business impacts, noise and vibration, urban design, and visual effects (see Figures ES-19 and ES-20).

KEY OUTREACH FINDINGS

Outreach efforts consistently revealed strong community support for an underground light rail configuration. Stakeholders and property owners expressed clear preferences for minimizing visual and noise impacts, preserving urban design aesthetics, and reducing disruptions to businesses. These preferences, combined with the absence of support for an aerial alignment, underscore the community’s alignment with Metro’s proposed underground alternative.

Figure ES-18

Outreach Activities



Community Stakeholders Engaged

ORGANIZATION NAME

- > Arts District Business Improvement District*
- > Avalon Bay Communities
- > Continuum Partners
- > Downtown Industrial Business Improvement District
Little Tokyo Community Council
- > East End Studios
- > El Pueblo De Los Angeles Commission
- > Japanese American National Museum (JANM) Board*
- > Little Tokyo Business Association*
- > Little Tokyo Historical Society*
- > Little Tokyo Stakeholder Meeting
- > Little Tokyo Towers*
- > LA Cold Storage
- > LA Wholesale Produce
- > Los Angeles River Artists and Business Association and
Business Association
- > Solutions Alameda Coalition**
- > The ROW (Atlas Capital)
- > Youngs Holdings

* Included in CBO Partnership

** Organization formed to work with Metro and identify
alternative funding sources in support an underground alignment.

Figure ES-19

Alignment Preference

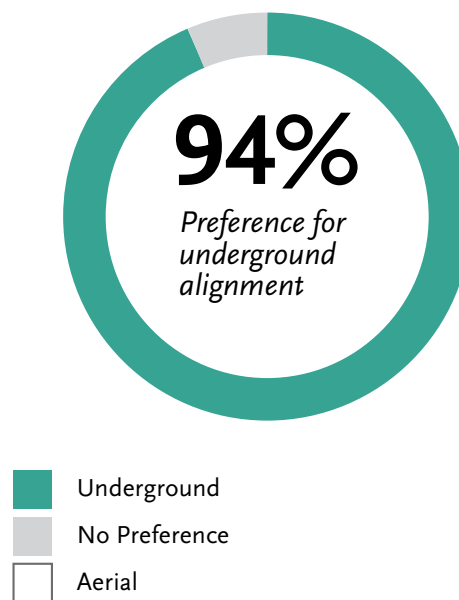
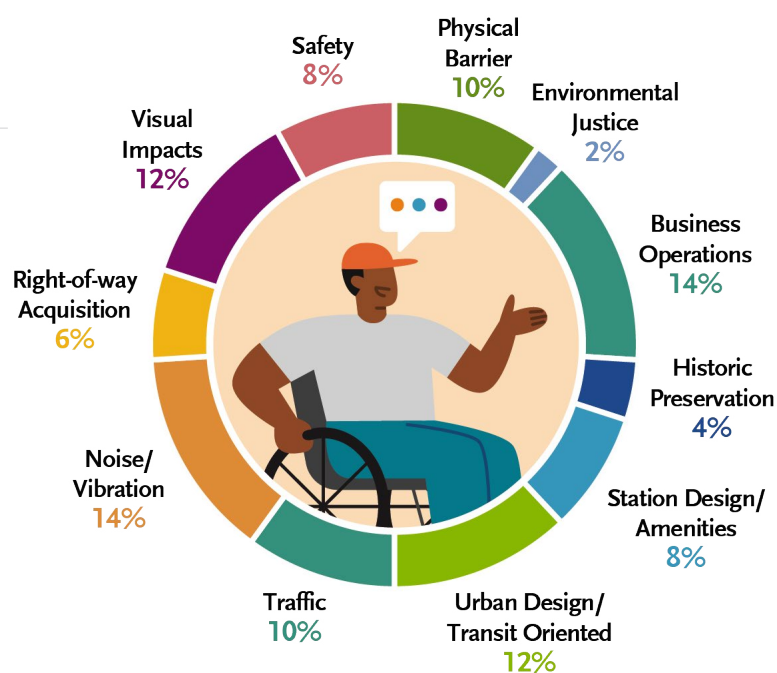


Figure ES-20

Stakeholder Comment and Community Topics



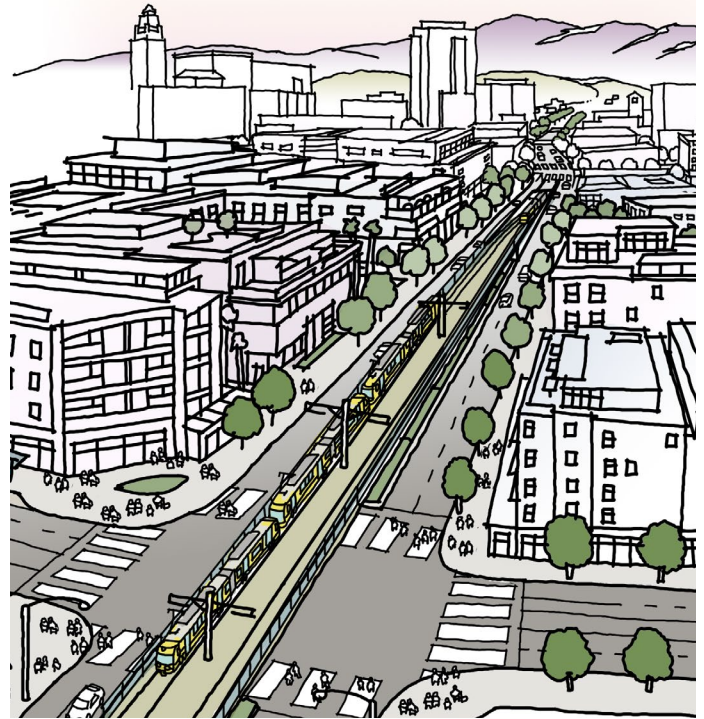
Key Findings

The Study evaluated two alignment concepts, each with varying levels of engineering constraints, environmental considerations, cost savings, and public support; they are summarized as follows.

- > **Concept 1: Draft EIS/EIR Underground Refined** would have similar constructability challenges and result in similar potential ROW acquisitions as Alternative 1 from the Draft EIS/EIR because of the similar alignment, including comparable underground construction required for the stations and alignment. Compared to Alternative 1, potential overhead utility conflicts would be reduced near the I-10 freeway due to the at-grade alignment under I-10 instead of an aerial structure over an active freeway. Concept 1 would not affect freeway access and would have a low potential to result in permanent street closures, effects on traffic circulation and on-street parking, operational noise and vibration effects, visual and aesthetics effects, and effects on planned bike facilities. Because Concept 1 would primarily be in an underground alignment, high levels of public support were received during the course of the Study. Based on a review of cost, funding, and schedule, it is anticipated that Concept 1 could open in 2053 and result in a four percent cost reduction compared to Alternative 1.
- > **Concept 2: Alameda Aerial Median** would have fewer constructability challenges compared to Alternative 1 from the Draft EIS/EIR, with less underground construction required for the stations and alignment and an at-grade alignment under I-10 instead of an aerial structure over an active freeway, but it would require more potential ROW acquisitions and utility conflicts compared to Alternative 1. Concept 2 would have a greater potential for environmental effects compared to Alternative 1 given the alignment would be in an aerial configuration. Concept 2 would have no potential effects on freeway access and low potential effects from operational noise and vibration compared to Alternative 1. However, the aerial alignment would have a moderate potential for effects on street closures and traffic circulation, on-street parking, and visual and aesthetics; and a high potential for effects on planned bicycle facilities. Concept 2 received lower levels of public support compared to Concept 1 (see Figure ES-21). Based on a review of cost, funding, and schedule, it is anticipated that Concept 2 could open in 2041 and would result in a 17 percent cost reduction compared to Alternative 1.

Figure ES-21

























Alameda Corridor Conceptual Birdseye Illustration






Note: This concept was presented to stakeholders and community members but was not supported due to its aerial configuration.

- > **Design Option: Extended Alameda Aerial Median** would be similar to Concept 2, in terms of overall potential for effects, public support, and cost, funding, and schedule. However, some potential effects would occur in different locations compared to Concept 2: Alameda Aerial Median, particularly between Olympic Boulevard and 15th Street related to street closures and traffic circulation and on-street parking. The Concept 2 Design Option was developed and introduced through the stakeholder engagement process during this Study. Based on a review of cost, funding, and schedule, it is anticipated that the Design Option could open in 2041 and would result in a 17 percent cost reduction compared to Alternative 1.

Table ES-2. Environmental and Cost Considerations Comparison Summary

ALIGNMENT CONCEPTS	ENVIRONMENTAL CONSIDERATIONS						COST COMPARISON (BILLION)
	STREET CLOSURES, GRADE CROSSINGS, TRAFFIC CIRCULATION	FREEWAY ACCESS	ON-STREET PARKING	VISUAL AND AESTHETICS	NOISE/ VIBRATION	PLANNED BIKE FACILITIES	
Baseline Draft EIS/EIR Alternative 1 LA Union Station to Pioneer Station							> \$8.0 B > \$1.8 B per mile
Concept 1: Draft EIS/EIR Underground Refined							> \$7.8 B > \$1.7 B per mile > 4% reduction from Alternative 1
Concept 2: Alameda Aerial Median							> \$6.7 B > \$1.5 B per mile > 17% reduction from Alternative 1
Concept 2 Design Option: Extended Alameda Aerial Median							> \$6.7 B > \$1.5 B per mile > 17% reduction from Alternative 1

Potential for Effects:  None or Low  Moderate  High

INTERMEDIATE SLAUSON/A LINE AND LOS ANGELES UNION STATION CONNECTION

This Study includes discussion of potential additional bus connections between the Slauson/A Line Station to LAUS to serve SGL riders along Alameda Street during the time between completion of the LPA and the extension of the LRT alignment to LAUS. An intermediate bus connection between the Slauson/A Line Station and LAUS would likely travel north-south along Alameda Street, serving the potential station areas of the Arts/ Industrial District Station, Little Tokyo Station, and LAUS. In addition to the intermediate bus service between the Slauson/A Line Station and LAUS, SGL riders may transfer at the Slauson/A Line Station to the A Line to reach LAUS via the Regional Connector.

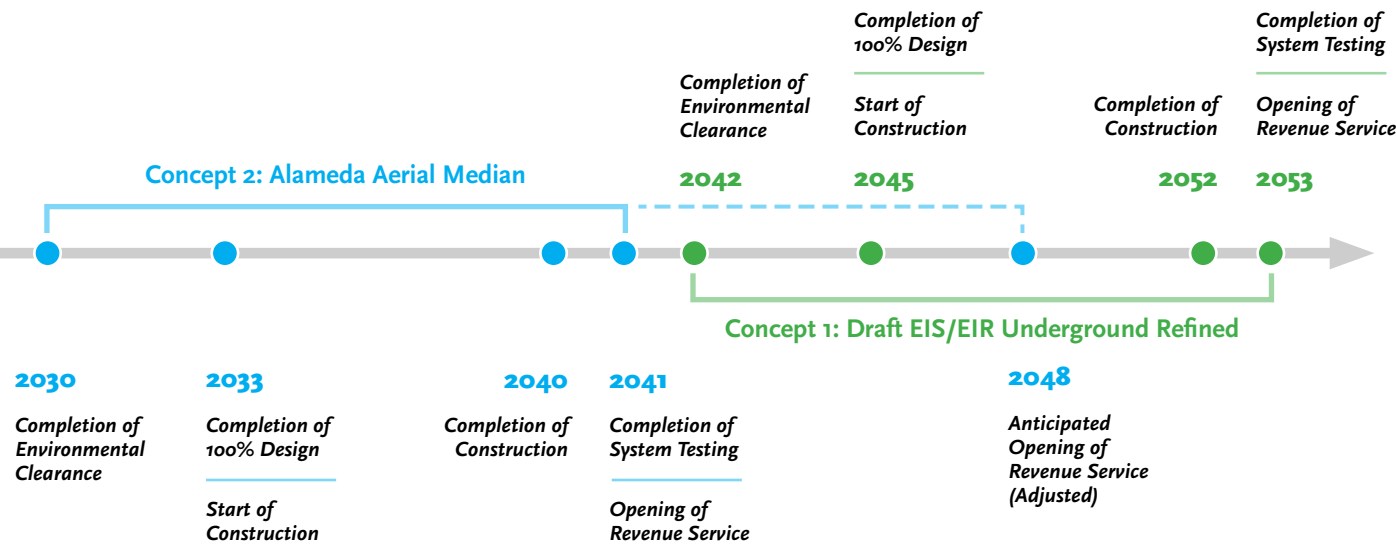
Other Schedule and Cost Considerations

At the time of the Study, the capital cost year of expenditure (YOE) timeline was based on the Measure M timeline of 2041 (see Figure ES-22). Based on the conceptual design and cost estimates developed for Concept 2: Alameda Aerial Median under this Study, a delivery acceleration of the Slauson/A Line to LAUS alignment could be feasible compared to a primarily underground alignment. However, the Project is unlikely to be funded without a federal funding agreement. Given the high volume of competitive Metro projects applying to the FTA New Starts program such as the Southeast Gateway Line LPA, E Line Eastside Extension, and Sepulveda Transit Corridor, the anticipated opening year for Concept 2: Alameda Aerial Median is no sooner than 2048.

The opening year of 2048 assumes successful and timely state and federal grant awards, as well as the availability of anticipated Metro sales tax funding. Concept 1: Draft EIS/EIR Underground Refined has a projected completion date of 2053 (see Figure ES-22). Based on the updated timeline of 2053 and 2048, the cost of Concepts 1 and 2 would be \$12.2 B to \$8.9 B (YOE \$). The cost per mile for Concepts 1 and 2 would be approximately \$2.72 billion to \$1.98 billion, compared to the Approved Project cost of \$480 to \$600 million per mile.

Figure ES-22

Opening Year Schedule Comparison



Note: Schedule is dependent on identification of funding and is subject to change. Concept 2 Design Option: Extended Alameda Aerial Median is assumed to have a similar schedule as Concept 2: Alameda Aerial Median, due to similar cost and construction complexity. Metro assumes 2 to 2.5 years for CEQA-only clearance and 1 to 1.5 years for NEPA-only clearance after completion of CEQA clearance. Time frames are subject to change depending on the number of alternatives advanced into the environmental process and if the CEQA and NEPA processes are sequential or concurrent.

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