

Executive Summary

GOLD LINE EASTSIDE TRANSIT CORRIDOR PHASE 2



Metro

Prepared for
Los Angeles Metropolitan
Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012

April 2024

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State Clearinghouse Number: 2010011062

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Executive Summary

ES.1 Introduction

The intent of this Executive Summary is to provide a synopsis of the Los Angeles County Metropolitan Transportation Authority (Metro) Eastside Transit Corridor Phase 2 Project (Project) and its potential effects on the environment. The Project would extend the Metro E Line (formerly Metro L [Gold] Line), a light rail transit (LRT) line, from its current terminus at the Atlantic Station in the unincorporated community of East Los Angeles approximately 4.6 to 9.0 miles east. **Section ES.3** and **Section ES.4** provide an overview of the Alternatives analyzed in the Recirculated Draft EIR and the Build Alternatives that were advanced by the Final Environmental Impact Report (Final EIR) by the Metro Board of Directors (Metro Board). **Section ES.4.1.4** discusses the design refinements that have occurred subsequent to publication of the Recirculated Draft EIR on June 30, 2022.

This Final EIR for the Eastside Transit Corridor Phase 2 (Project) has been prepared to comply with the requirements of California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3, Section 15000 et seq.) by the Los Angeles County Metropolitan Transportation Authority (Metro), which is the lead agency for the Project. This Final EIR is intended to assist Metro in making decisions regarding the adoption of the Project. All references or citations in this Final EIR to the Recirculated Draft EIR refer to the version of the Recirculated Draft EIR released for public review and comment on June 30, 2022 and not as modified by this Final EIR. Consistent with CEQA Guidelines Section 15132, This Final EIR incorporates the Eastside Transit Corridor Phase 2 Recirculated Draft EIR (State Clearinghouse No. 2010011062) by reference, in its entirety, as revised by the Corrections and Additions contained in Chapter 3 of this Final EIR. The Final EIR will be finalized upon certification by Metro's decision-making body, the Metro Board.

ES.2 Purpose of this Environmental Impact Report

In accordance with CEQA Guidelines Sections 15088, 15089, and 15132, Metro, as Lead Agency, has prepared this Final EIR for the Project. This section provides an overview of the purpose of this Final EIR for the Project. This Final EIR has been prepared to comply with the requirements of CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA guidelines (California Code of Regulations [CCR], Title 14, Chapter 3, Section 15000 et seq.).

This Final EIR is intended to assist Metro in making decisions regarding the adoption of the Project. It is required by CEQA guidelines section 15132 to include the Draft EIR or a revision of the draft; comments and recommendations received on the Recirculated Draft EIR (either verbatim or in summary); a list of persons, organizations, and public agencies who commented on the Recirculated Draft EIR; responses to comments received regarding the Recirculated Draft EIR; and any other relevant information added by the lead agency.

Refinements to Project since circulation of the Recirculated Draft EIR and corrections and additions to the Recirculated Draft EIR, are provided in Chapter 2, Design Refinements, and Chapter 3, Corrections and Additions, of the Final EIR respectively. Chapter 4 of this Final EIR provides a list of persons,

organizations, and agencies that provided comments on the Recirculated Draft EIR, a reproduction of the text of the public comments received on the Recirculated Draft EIR, and Metro's responses to the public comments. The original comment submissions, as well as any graphics, charts, and attachments included with the submissions, are provided in their entirety in **Appendix A**.

As described in Chapter 2 of the Final EIR, the Projects' design refinements and are the result of further advancement of the conceptual engineering for the Project and are not considerably different from the Alternatives and the design options analyzed in the Recirculated Draft EIR. As demonstrated in Chapter 2 of the Final EIR, the refinements to the Project would not alter the conclusion of the Draft EIR regarding the potentially significant impact of the Project or result in any new substantially more severe significant environmental impacts.

As described in Chapter 3 and 4 of the Final EIR, the Projects' corrections and additions are primarily the result of public comments and community outreach conducted as part of the Recirculated Draft EIR circulation pursuant to CEQA Guidelines Section 15105. As such, the corrections and additions include minor corrections and clarifications, as well as updates to relevant plans, policies, and permits. Such refinements and modifications would not be considered "significant new information" pursuant to CEQA Guidelines Section 15088.5 as the modifications have been made to the Project already described in the Recirculated Draft EIR and have been made largely as a result of public outreach and discourse such that the public has not been deprived of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project or a feasible way to mitigate or avoid such an effect.

ES.2.1 Environmental Review Process

ES.2.1.1 Notice of Preparation and Scoping Meetings

Metro has implemented a comprehensive outreach program for the Project, starting in 2007 with outreach activities, workshops, and meetings for the Alternatives Analysis (AA), and continuing through the present time for the efforts related to this Final EIR. Pursuant to CEQA, Metro issued a Recirculated Notice of Preparation (NOP) on May 31, 2019 for the Recirculated Draft EIR. The NOI/NOP included three Build Alternatives (State Route [SR] 60 Alternative, Washington Alternative, and Combined Alternative) and a No Build Alternative. Metro conducted six public Scoping Meetings in June 2019 to receive formal public comments on the Build Alternatives and their potential impacts to the environment and quality of life. In 2020, in anticipation of recommending the withdrawal of the SR-60 Alternative and Combined Alternative from further evaluation to the Metro Planning and Programming Committee and the Metro Board, Metro staff prepared for and planned three community meetings in February 2020 to provide a comprehensive Project update. Metro hosted another round of meetings in November 2021 to provide a Project update and share information on the ongoing station design efforts. As a follow-up to the community meeting series hosted in November 2021, Metro conducted additional meetings in March 2022 focused on sharing information on the ongoing station design efforts with specific communities and cities and providing stakeholders with the opportunity to ask questions. Leading up to the release of the Recirculated Draft EIR, the outreach program initiated partnering efforts with local Community Based Organizations (CBO), that served as local experts. The CBOs advised the team on ways to enhance community outreach methods, including notification to underserved corridor communities and neighborhoods, and provided local task and event staffing support.

ES.2.1.2 Recirculated Draft EIR Public Review Period

The Recirculated Draft EIR was released for public review for 60 days from June 30, 2022 through August 29, 2022. To inform agencies, stakeholders, and the community about the release of the Recirculated Draft EIR, a notice of availability was distributed through agencies, organizations, elected officials, and other interested parties. A newspaper notice was published in the Los Angeles Times, La Opinion (Spanish), Whittier Daily News, and Eastside Sun. In addition, Metro distributed a public mailer that included information on the release of the Recirculated Draft EIR, how to access the document, ways to provide comments, details on the community information sessions and public hearings, and how to use the new virtual interactive tool. Community pop-up events were held to provide additional information to the public surrounding the availability of the Draft EIR for review and comment. Other outreach efforts included social media postings, a second mailing, display of banners, distribution of flyers and lawn signs, distribution of a toolkit to stakeholders for spreading the information to other neighborhood and community members, slides provided to cities for posting on their cable channel, and postings on Metro's website and news blog.

The Recirculated Draft EIR was made available online at the California State Clearinghouse website, the Metro project webpage, and StoryMap, and printed copies were made available at the seven repository sites along the corridor and at Metro Headquarters. The public could provide comments on the Recirculated Draft EIR at public hearings, via an online comment form, U.S. mail, and a dedicated helpline (for voice-recorded comments) for the Project. Metro conducted four public hearings – three in-person and one virtual with in-person remote viewing access at a central site along the corridor – to provide information on the Recirculated Draft EIR and receive verbal and written public comments. Metro staff was also available to informally answer questions and provide information in a workshop-type setting immediately before and after the formal public hearings. **Appendix B** of the Final EIR includes the Outreach Summary Report which provides more detailed information on outreach efforts, including activities occurring after publication of the Recirculated Draft EIR.

ES.2.2 Project Objectives

East Los Angeles County faces an increasing number of mobility challenges due to high population, employment growth, and a constrained transportation network. The existing terminus of Metro E Line is located approximately four miles east of Downtown Los Angeles at Atlantic Boulevard and Pomona Boulevard in the unincorporated community of East Los Angeles. There is no rail connection for communities located to the east. By extending the existing Metro E Line into eastern Los Angeles County, the Project will enhance access and mobility to communities located further east and provide connectivity to other destinations along Metro's regional transit system. Further, the Project will reduce travel times and the need for transfers within the system. By serving concentrated areas of employment, activity centers and residential communities, the Project will support transit-oriented community goals and address the needs of transit-dependent populations. The Project will provide new and faster transit options which will help lead to equitable development and in-fill growth opportunities throughout eastern Los Angeles County. In support of the goals documented in Metro's 2020 L RTP and Metro's Vision 2028 Strategic Plan, the Project Objectives include the following:

- Enhance regional connectivity and air quality goals by extending the existing Metro E Line (formerly Metro L [Gold] Line) further east from the East Los Angeles terminus
- Provide mobility options to increase accessibility and convenience to and from eastern Los Angeles County

- Improve transit access to activity centers and employment within eastern Los Angeles County that would be served by the Project
- Accommodate future transportation demand resulting from increased population and employment growth
- Enable jurisdictions in eastern Los Angeles County to address their transit-oriented community goals and provide equitable development opportunities
- Improve accessibility and connectivity to transit-dependent communities

ES.3 Project Background

The easterly extension of the Metro E Line is being constructed in phases. In November 2009, the first phase from Los Angeles Union Station to Atlantic Station was completed, and planning was initiated for the second phase. This second phase, known as the Eastside Transit Corridor Phase 2 Project, is the subject of this Final EIR.

A Draft Environmental Impact Statement (EIS)/EIR was released for public review in August 2014. Partially in response to comments from stakeholders and regulatory agencies on the Draft EIS/EIR, the Metro Board directed staff to conduct additional technical studies including identifying a new north-south connection to Washington Boulevard, addressing agency comments regarding the State Route (SR) 60 Alternative and exploring a Combined Alternative. Based on the technical analysis and feedback received through public meetings and stakeholder workshops, the Eastside Transit Corridor Phase 2 Post Draft EIS/EIR Technical Study Report was approved by the Metro Board in November 2017 with an updated Project Definition to move forward for environmental review and analysis (Metro 2017).

The Federal Transit Administration (FTA) published a Notice of Intent (NOI) in the Federal Register on May 29, 2019 to initiate the EIS process (U.S. Department of Transportation FTA 2019), and Metro issued a Notice of Preparation (NOP) pursuant to the CEQA on May 31, 2019. The NOI/NOP included three Build Alternatives (SR 60 Alternative, Washington Alternative, and Combined Alternative) and a No Build Alternative.

Constraints within or along the SR 60 Alternative became more evident as further technical environmental analysis, additional engineering design, and Metro policy and program updates were completed. In addition, conflicts with future improvements along the SR 60 freeway were also identified. In February 2020, the Metro Board approved the withdrawal of the SR 60 and Combined Alternatives, the discontinuation of the National Environmental Policy Act (NEPA) analysis, and the preparation of a Recirculated Draft EIR pursuant to CEQA to address the Washington Alternative.

The Recirculated Draft EIR evaluated three Build Alternatives and the No Project Alternative. The three Build Alternatives (Alternative 1 Washington [Alternative 1], Alternative 2 Atlantic to Commerce/Citadel IOS [Alternative 2], and Alternative 3 Atlantic to Greenwood IOS [Alternative 3]) have the same guideway alignment east of the existing terminus at Atlantic Station but vary in length. A more detailed description of the Build Alternatives is provided in Chapter 2 of the Recirculated Draft EIR. The Recirculated Draft EIR also evaluated several design options and two maintenance storage facility (MSF) site options. The Recirculated Draft EIR was released for public review by agencies, organizations, and the public for 60 days from June 30 through August 29, 2022. During this period,

301 comment submissions were received. One additional comment submission was received three months after the close of the comment period.

On December 1, 2022, the Metro Board selected Alternative 3 with the two design options (Atlantic/Pomona Station Option, the Montebello At-Grade Option), and the Montebello MSF as the Locally Preferred Alternative (LPA). Factors evaluated in selecting the LPA included consideration of the environmentally superior alternative identified in the Recirculated Draft EIR, as well as which Build Alternative had the best opportunity for federal funding opportunities relative to meeting the federal requirements for local funding commitment and the timeline of required coordination with regulatory agencies. (Alternative 1 would have a higher cost and would require extensive coordination with the California Department of Transportation [Caltrans] and the U.S. Army Corps of Engineers [USACE].)

In addition to identifying the LPA as Alternative 3 with the design options and the Montebello MSF, the Metro Board adopted a motion for continuing the CEQA process for the LPA and the full alignment with a terminus at Lambert station in Whittier (Alternative 1). The Metro Board did not advance Alternative 2 for further environmental evaluation in the Final EIR because it would only connect to the Commerce MSF, which would have a significant unavoidable impact on cultural resources and would not continue east to connect to the environmentally superior Montebello MSF option. Pursuant to the Metro Board motion, this Final EIR advances Alternative 1 with the design options and the Montebello MSF and Alternative 3 with the design options and the Montebello MSF.

While the Metro Board is not advancing Alternative 2 to the Final EIR, Chapter 3, Corrections and Additions, and Chapter 4, Responses to Comments, address all alternatives, design options, and MSF site options evaluated in Recirculated Draft EIR.

Following the action of the Metro Board and receipt and review of public comments, the conceptual engineering of the Project has continued to progress. This has resulted in the consideration of refinements to the overall project design and performance that are applicable to Alternative 1 and Alternative 3, including changes that are incorporated into Alternative 1 and Alternative 3 as new project components or as optional changes that will be further considered as the engineering advances. The Design Refinements are described and evaluated in detail in Chapter 2 of the Final EIR, and are not considerably different from Alternative 1 and Alternative 3 and the design options analyzed in the Recirculated Draft EIR and in **Section ES.4** below.

ES.4 Project Description

Pursuant to the Metro Board decision on December 1, 2022, as discussed in **Section ES.3**, the Final EIR advances the evaluation of the following alternatives:

- Alternative 1 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option and the Montebello MSF
- Alternative 3 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option, and the Montebello MSF (LPA)

Alternative 3 (LPA) is described in greater detail in this section. Followed by additional information on Alternative. A complete description of Alternative 1 is provided in Chapter 2, Project Description, of the Recirculated Draft EIR.

Consistent with CEQA Guidelines Section 1526.6(e), Metro also identified a No Project Alternative that was evaluated in the Recirculated Draft EIR. The No Project Alternative is summarized in **Section ES.4.4**.

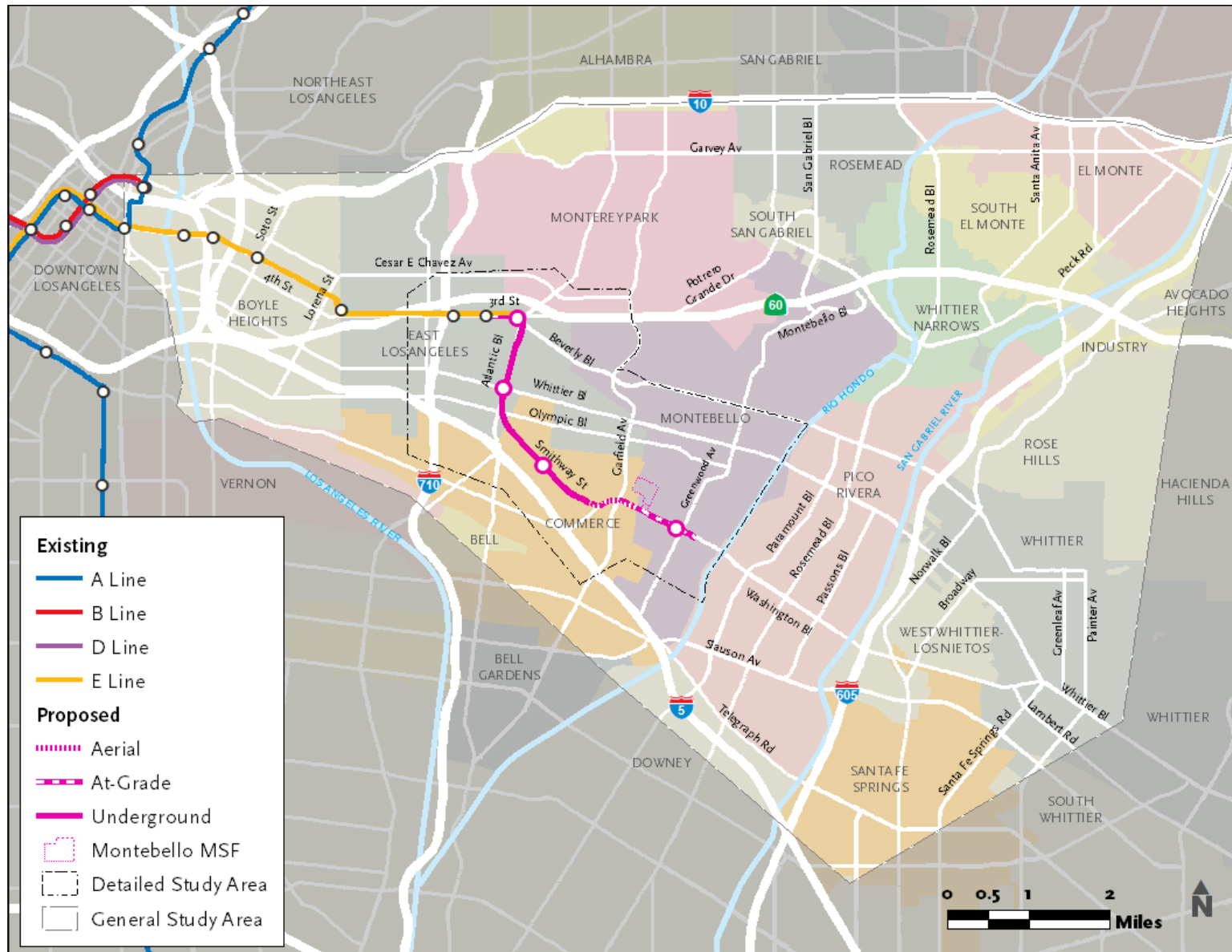
ES.4.1 LPA

The LPA would extend the Metro E Line approximately 4.6 miles east from the current terminus at Atlantic Boulevard to an at-grade terminal station at the Greenwood station in the city of Montebello. The LPA would include a relocated open-air shallow underground Atlantic station and three new stations: Atlantic/Whittier (underground), Commerce/Citadel (underground), and Greenwood (at-grade). The LPA would have approximately 3.0 miles of underground, 0.5 miles of aerial, and 1.1 miles of at-grade alignment. The LPA is shown on **Figure ES.1**.

An MSF and other ancillary facilities, including overhead catenary system (OCS), tracks, cross passages, ventilation structures, traction power substations (TPSS), track crossovers, emergency generators, radio tower poles and equipment shelters, and other facilities, would also be constructed along the Project alignment.

ES.4.1.1 Project Alignment and Stations

The guideway would begin at the eastern end of the existing East Los Angeles Civic Center Station, transitioning from at-grade to underground at the intersection of South La Verne Avenue and East 3rd Street. The guideway would then turn south and run beneath Atlantic Boulevard to approximately Verona Street and Olympic Boulevard. The underground guideway would then curve southeast, running under Smithway Street near the Citadel Outlets in the city of Commerce. After crossing Saybrook Avenue, the guideway would daylight from underground to an aerial configuration to avoid disrupting existing BNSF Railway tracks. The aerial guideway would continue parallel to Washington Boulevard, then merge into the center median east of Garfield Avenue. At Yates Avenue, the guideway would transition from aerial to an at-grade configuration, run along Washington Boulevard to Carob Way, and then continue east in an at-grade configuration. The alignment would terminate at the at-grade Greenwood station in the city of Montebello.



Source: Metro; CDM Smith/AECOM JV, 2021.

Figure ES.1. Locally Preferred Alternative

The following stations would be constructed under the LPA:

- **Atlantic Pomona Open-Air Station** – The Atlantic/Pomona Station Option would relocate the existing Atlantic Station to a shallow underground open-air station with two side platforms and a canopy. This station would be located beneath the existing triangular parcel bounded by Atlantic Boulevard, Pomona Boulevard, and Beverly Boulevard. The existing parking structure located north of the 3rd Street and Atlantic Boulevard intersection would continue to serve this station. In coordination with Metro Art, efforts would be made, as feasible, to relocate the artwork from the existing Atlantic Station to the new Atlantic/Pomona Station.
- **Atlantic/Whittier** – This station would be underground with a center platform located beneath the intersection of Atlantic and Whittier Boulevards in East Los Angeles. Parking would not be provided at this station. Access to the station would be provided via an entrance located on the northwest corner of the Whittier Boulevard and Atlantic Boulevard intersection.
- **Commerce/Citadel** – This station would be underground with a center platform located beneath Smithway Street near the Citadel Outlets in the city of Commerce. Parking would not be provided at this station. Access to the station would be provided via an entrance located south of Smithway Street west of Gaspar Avenue.
- **Greenwood** – This station would be at-grade with a center platform on Washington Boulevard located just west of Greenwood Avenue in the city of Montebello. This station would have a parking facility near the intersection of Greenwood Avenue and Washington Boulevard.

ES.4.1.2 Maintenance and Storage Facility

An MSF in the city of Montebello would be constructed to provide equipment and facilities to clean, maintain, and repair rail cars, vehicles, tracks, and other components of the system. The MSF would enable storage of light rail vehicles (LRVs) that are not in service and would connect to the mainline with one lead track. The MSF would also provide office space for Metro rail operation staff, administrative staff, and communications support staff. The MSF would be the primary physical employment centers for rail operation employees, including train operators, maintenance workers, supervisors, administrative, security personnel and other roles.

The Montebello MSF is located in the city of Montebello, north of Washington Boulevard and south of Flotilla Street between Yates Avenue and S. Vail Avenue. The site is approximately 30 acres in size and is bounded by S. Vail Avenue to the east, a warehouse structure along the south side of Flotilla Street to the north, Yates Avenue to the west, and a warehouse rail line to the south. Additional acreage would be needed to accommodate the lead track and construction staging.

The guideway alignment with the Montebello MSF would daylight from an underground to an aerial configuration west of the intersection of Gayhart Street and Washington Boulevard. The lead tracks would be in an at-grade configuration from Washington Boulevard, paralleling S. Vail Avenue and remain at-grade to connect to the Montebello MSF. Through access on Acco Street to Vail Avenue would be eliminated and cul-de-sacs would be provided on each side of the lead tracks to ensure that access to businesses in this area is maintained.

The Montebello MSF would require the acquisition of several properties with commercial and industrial uses. The parcels within the Montebello MSF and in the vicinity are classified as Heavy

Manufacturing under the city of Montebello zoning code. A significant portion of the Montebello MSF is occupied by an industrial/commercial paving business.

ES.4.1.3 Ancillary Facilities

The LPA would require a number of additional elements to support vehicle operations, including but not limited to the OCS, tracks, crossovers, cross passages, ventilation structures, TPSS, train control houses, electric power switches and auxiliary power rooms, communications rooms, radio tower poles and equipment shelters, and the MSF. The LPA would have an underground alignment of approximately 3 miles in length between La Verne and Saybrook Avenue. Per Metro's Fire Life Safety Criteria, ventilation shafts and emergency fire exits would be installed along the tunnel portion of the alignment. These would be located at the underground stations or public right-of-way (ROW). The aerial and at-grade alignment would travel along the median of the roadway for most of the route. The precise location of ancillary facilities would be determined in a subsequent design phase.

ES.4.1.4 Design Refinements

As described in **Section ES.3**, following the action of the Metro Board and receipt and review of public comments on the Recirculated Draft EIR, the conceptual engineering of the Project has continued to progress. The following refinements to the overall project design and performance that have occurred subsequent to publication of the Recirculated Draft EIR. The Design Refinements, which are fully evaluated in Chapter 2 of the Final EIR, are not considerably different from Build Alternatives and design options analyzed in the Recirculated Draft EIR. Chapter 2 of the Final EIR includes an evaluation of the refinements and determines that the refinements would not result in any material difference in impacts compared to those described for Alternative 3 in the Recirculated Draft EIR, and would not involve new significant environmental impacts or a substantial increase in the severity of previously identified impacts.

- Guideway Refinement – an optional refinement of the aerial and at-grade guideway configurations where the aerial tracks would transition from an aerial to an at-grade configuration further east of the location evaluated under the base Alternative 1 and 3 in Recirculated Draft EIR and further west of the location evaluated under the Montebello At-Grade Option evaluated for Alternative 1 and 3 in the Recirculated Draft EIR. The lead tracks to the MSF would be aerial as evaluated for the base Alternative 1 and 3 in the Recirculated Draft EIR.
- Crossover Refinements – four new or revised crossover locations from those evaluated in the Recirculated Draft EIR (four locations are applicable to Alternative 1 and three locations are applicable to Alternative 3).
 - Maravilla crossover (Optional for Alternative 1 and Alternative 3) – a new at-grade crossover in the existing Line E tracks on 3rd Street between Arizona Avenue and Kern Avenue, west of East L.A. Civic Center Station, located outside of the alignment but within the DSA studied in the Recirculated Draft EIR.
 - Atlantic/Whittier Station crossover (Alternative 1 and Alternative 3 component) – a new underground crossover just north of the proposed Atlantic/Whittier station that increases the size of the underground station footprint that was analyzed in the Recirculated Draft EIR.

- Greenwood crossovers (Alternative 1 and Alternative 3 component with the Montebello At-Grade Option or Guideway Refinement) – at-grade crossover west of Greenwood station and crossover east of Greenwood station that is west of the crossover location analyzed in the Recirculated Draft EIR.
- Lambert crossover (Alternative 1 component) – a new at-grade crossover and tail tracks south of the Alternative 1 terminus at Lambert station. This crossover is applicable to Alternative 1 but not applicable to the Project.

ES.4.2 Alternative 1

Alternative 1 would include the same Project components as the LPA described above, however, it would extend the at-grade Project alignment for approximately 4.5 miles eastward to a terminus at Lambert station in the city of Whittier. The Alternative 1 alignment would cross the Rio Hondo and San Gabriel River and the Rio Hondo Spreading Grounds, and the existing San Gabriel River and Rio Hondo bridges on Washington Boulevard would be replaced with new bridges designed to carry both the LRT facility and the four-lane roadway. Alternative 1 would also cross below the Interstate (I) 605 overpass on Washington Boulevard.

The Alternative 1 alignment includes the following three additional stations:

- **Rosemead** – This station would be at-grade with a center platform located in the center of Washington Boulevard west of Rosemead Boulevard in the city of Pico Rivera. This station would provide a surface parking facility near the intersection of Rosemead and Washington Boulevards. Access to the station would be provided through an entrance located west of the Rosemead Boulevard and Washington Boulevard intersection. A secondary entrance would be located on the western side of the station platform that would be accessible with a mid-block pedestrian crossing.
- **Norwalk** – This station would be at-grade with a center platform located in the median of Washington Boulevard east of Norwalk Boulevard in the city of Santa Fe Springs. This station would provide a surface parking facility near the intersection of Norwalk and Washington Boulevards. Access to the station would be provided via an entrance located east of Norwalk Boulevard and a secondary station entrance west of Boer Avenue.
- **Lambert** – This station would be at-grade with a center platform located south of Washington Boulevard just west of Lambert Road in the city of Whittier. This station would provide a surface parking facility near the intersection of Lambert Road and Washington Boulevard. Two entrances to the station would be provided at each end of the platform.

ES.4.3 Construction, Operations, and Permit Requirements

The following description of project construction and operations and required permits and approvals applies to both the LPA and Alternative 1 unless otherwise specified.

ES.4.3.1 Description of Construction

The major construction activities include guideway construction (underground, aerial, and at-grade); decking and tunnel boring for the underground guideway; station construction; demolition; utility relocation and installation work; street improvements including sidewalk reconstruction and traffic signal installation; retaining walls; LRT operating systems installation including TPSS and OCS; parking facilities; the MSF; and construction of other ancillary facilities. Alternative 1 would also include bridge demolition and bridge construction, including construction work within the Rio Hondo, Rio Hondo Spreading Grounds, and San Gabriel River, and work within the California Department of Transportation (CALTRANS) right-of-way.

In addition to adhering to regulatory compliance, the development of the LPA or Alternative 1 would employ conventional construction methods, techniques, and equipment. All work for the development of the LRT system would conform to accepted industry specifications and standards, including Best Management Practices (BMPs). Project engineering and construction would, at minimum, be completed in conformance with the regulations, guidelines, and criteria, including, but not limited to, Metro Rail Design Criteria (MRDC) (Metro 2018), California Building Code, Metro Operating Rules, and Metro Sustainability Principles.

The construction is expected to last approximately 60 to 84 months. Construction activities would shift along the corridor so that overall construction activities should be relatively short in duration at any one point. Most construction activities would occur during daytime hours. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions. Traffic control and pedestrian control during construction would follow local jurisdiction guidelines and the Manual of Uniform Traffic Control Devices (MUTCD) standards. Typical roadway construction traffic control methods and devices would be followed including the use of signage, roadway markings, flagging, and barricades to regulate, warn, or guide road users. Properties adjacent to the Project's alignment would be used for construction staging. The laydown and storage areas for construction equipment and materials would be established in the vicinity within parking facilities, and/or on parcels that would be acquired for the proposed stations and MSF. Construction staging areas would be used to store building materials, construction equipment, assemble the tunnel boring machine (TBM), temporary storage of excavated materials, and serve as temporary field offices for the contractor.

ES.4.3.2 Description of Operations

The operating hours and schedules would be comparable to the weekday, Saturday and Sunday, and holiday schedules for the Metro E Line (effective 2019). It is anticipated that trains would operate every day from 4:00 am to 1:30 am. On weekdays, trains would operate approximately every 5 to 10 minutes during peak hours, every 10 minutes mid-day and until 8:00 pm, and every 15 minutes in the early morning and after 8:00 pm. On weekends, trains would operate every 10 minutes from 9:00 am to 6:30 pm, every 15 minutes from 7:00 am to 9:00 am and from 6:30 pm to 7:30 pm, and every 20 minutes before 7:00 am and after 7:30 pm. These operational headways are consistent with Metro design requirements for future rail services.

ES.4.3.3 Required Permits and Approvals

Metro will comply with all applicable federal, state, and local environmental regulations and will responsibly and reasonably mitigate significant environmental impacts resulting from the LPA in accordance with Metro policies and applicable laws. The Project would require various environmental permits and/or approvals. **Table ES-1** and **Table ES-2** list the anticipated agency/jurisdiction and permit/approval required for the LPA.

Table ES-1. Required Agency/Jurisdiction Approvals

Agency/Jurisdiction	Approval	Applicable Alternative
USACE	Section 404, 408	Alternative 1
CDFW	1602 Streambed Alteration Agreement	Alternative 1
Caltrans	Permit approvals for encroachment on I-605	Alternative 1
DTSC	Hazardous materials cleanup	Alternative 1 and LPA
CPUC	Grade Separations, Crossings, State Safety Oversight	Alternative 1 and LPA
Metro	Certification of Recirculated Draft EIR, adoption of Findings and Statement of Overriding Considerations, adoption of the Mitigation Monitoring and Reporting Program as Lead Agency under CEQA	Alternative 1 and LPA

Key:

Caltrans = California Department of Transportation

CEQA = California Environmental Quality Act

DTSC = Department of Toxic Substance Control

USACE = United States Army Corps of Engineers

CDFW = California Department of Fish and Wildlife

CPUC = California Public Utilities Commission

MMRP = Mitigation Monitoring and Reporting Program

Table ES-2. Required Agency/Jurisdiction Permits

Agency/Jurisdiction	Permits	Applicable Alternative
State Water Resources Control Board	NPDES Dewatering permit, Los Angeles County MS4 NPDES Package, Industrial General Permit; Construction General Permit and SWPPP	Alternative 1 and LPA
Regional Water Quality Control Boards	Section 401	Alternative 1
SCAQMD	Consultation to identify best practices for construction emissions, Clean Air Act Title V permit (if required)	Alternative 1 and LPA
BNSF Railroad	Encroachment permits	Alternative 1 and LPA
UPRR	Encroachment permits	Alternative 1 and LPA
Los Angeles County Flood Control District	Permits	Alternative 1
Los Angeles County Department of Public Works	Permits	Alternative 1 and LPA

Agency/Jurisdiction	Permits	Applicable Alternative
Los Angeles County Sanitation Districts	Permits	Alternative 1 and LPA
Los Angeles County and cities of Commerce, Montebello, Pico Rivera, Santa Fe Springs, and Whittier	Permits and/or discretionary actions required	Alternative 1 (all jurisdictions) and LPA (Los Angeles County, cities of Commerce and Montebello)

Key:

BNSF = Burlington Northern Santa Fe

NPDES= National Pollutant Discharge Elimination System

SWPPP = Stormwater pollution prevention plan

MS4 = Municipal Separate Storm Sewer System

SCAQMD = Southern Coast Air Quality Management District

UPRR = Union Pacific Railroad

ES.4.4 No Project Alternative

Pursuant to CEQA Guidelines,¹ the No Project Alternative establishes impacts that would reasonably be expected to occur in the foreseeable future if the Project were not approved. The No Project Alternative would maintain existing transit service and include planned regional projects through the year 2042. No new transportation infrastructure would be built within the GSA aside from projects currently under construction or funded for construction and operation by 2042 via Measure R or Measure M sales tax measures that were approved by voters. The No Project Alternative would include highway and transit projects identified for funding in Metro's 2020 LRTP and Southern California Association of Governments (SCAG) *Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020 RTP/SCS).

ES.5 Environmental Analysis

The EIR identifies the potential environmental impacts of the Project alternatives and discusses design features or mitigation measures that would avoid or substantially reduce these impacts to less than significant levels. Project measures are incorporated as part of the Build Alternatives and consists of design features, best management practices, or other measures required by law and/or permit approvals. Mitigation measures are the additional actions, not otherwise part of the Build Alternatives that would be applied to avoid, minimize, or compensate for significant impacts identified. Mitigation measures are required where significant impacts have been identified based on the impact analyses for operation or construction of the Build Alternatives. The LPA and Alternative 1 have one impact that cannot be mitigated and would remain significant and unavoidable. An overall summary of environmental impacts is presented in **Section ES.7**.

According to the environmental impact analysis for the LPA and Alternative 1, there are no feasible mitigation measures to reduce significant impacts on paleontological resources (Impact GEO-5) to less than significant. Further, according to the environmental impact analysis, there are also no feasible measures to reduce the Project's cumulatively significant contribution to the cumulatively significant impacts on paleontological resources (Impact GEO-5). As such, the construction of the Project would result in significant and unavoidable impacts related Paleontological Resources (Impact GEO-5) as discussed in Section 3.6 of the Recirculated Draft EIR.

The No Project Alternative would not result in the same significant environmental impacts of the Project; however, the No Project Alternative would have the greatest number of significant and

¹ California Code of Regulations, Title 14, Chapter 3, Section 15126.6(e)(2).

unavoidable impacts to environmental resources as this alternative would be inconsistent and conflict with regional and local programs, plans, ordinances, and policies related to air quality, GHG, Land Use, and transportation.

Table ES-3 provides a comparison of those resources that have significant and unavoidable impacts under the LPA, Alternative 1, and the No Project Alternative and identifies the impact determination for each. An overall summary of environmental impacts for the LPA, Alternative 1, and the No Project Alternative is presented in **Section ES.7**.

Table ES-3. Comparison of Impact Determinations by Alternative for Environmental Resources with Significant and Unavoidable Impacts

Alternative	Environment Resource with Significant and Unavoidable Impacts				
	Air Quality	Geology, Seismicity, Soils, and Paleontological Resources	Greenhouse Gas Emissions	Land Use	Transportation and Traffic
No Project Alternative	SU	NI	SU	SU	SU
Alternative 1 ¹	LTS	SU	LTS	LTS	LTSM
LPA ¹	LTS	SU	LTS	LTS	LTSM

Source: CDM Smith/AECOM JV, 2022.

Note:

¹ Alternative 1 with the Montebello MSF site option would have greater severity and number of impacts that would need to be mitigated compared to the LPA, given its longer at-grade alignment and number of potential stations.

Key: NI = No Impact; LTS = Less Than Significant; LTSM – Less Than Significant with Mitigation; SU = Significant and Unavoidable

ES.6 Alternatives to Reduce Significant Impacts

CEQA Guidelines Section 15126.6(a) requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The CEQA Guidelines emphasize that the selection of the project alternatives should be based primarily on the ability to reduce significant impacts relative to Project "even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly." The CEQA Guidelines further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are analyzed. Based on an analysis of these alternatives, an environmentally superior alternative is identified.

ES.6.1 Environmentally Superior Alternative

Under Section 15126.6(a) of the CEQA Guidelines, an “environmentally superior alternative” must be identified in order to determine which alternative possesses an overall environmental advantage when compared to all other alternatives evaluated in the Recirculated Draft EIR. The environmentally superior alternative can inform decisionmakers as part of the Project approval process. However, Metro is not required under CEQA to select the environmentally superior alternative as the locally approved project.

Based on the environmental analysis presented in the Recirculated Draft EIR, Alternative 3 with the Montebello MSF site option, with or without the design alternatives, was identified as the environmentally superior alternative as it would result in a lower number of significant and unavoidable impacts compared to Alternatives 1, 2, and 3 with the Commerce MSF site option, and smaller level of environmental effects when compared to the full build of the Alternative 1 with Montebello MSF site option.

All Build Alternatives, design options, and MSF site options would have significant and unavoidable impacts during construction relative to paleontological resources, as shown in **Table ES-3**. While this impact would be similar for all Build Alternatives and options, the severity of impacts and applicability of mitigation measures relative to other resources areas help distinguish environmental superiority among alternatives.

ES.7 Summary of Environmental Impacts and Mitigation

Table ES-4 provides an overall summary of environmental impacts for the two Build Alternatives advanced in the Final EIR.² **Table ES-5** provides impact evaluations for each environmental resource assessed in the Final EIR for the two advanced Build Alternatives before and after mitigation. Mitigation measures are actions required to reduce the adverse effect(s) identified in the Environmental Impact Report. Revisions to mitigation measures are shown in Chapter 3 of the Final EIR. Final mitigation measures are provided in Chapter 5 of the Final EIR.

² These alternatives include Alternative 1 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option and the Montebello MSF and Alternative 3 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option, and the Montebello MSF (LPA).

Table ES-4. Summary of Impacts by Environmental Resource

Alternative	Aesthetics	Air Quality	Biological Resources	Cultural Resources	Energy Resources	Geology and Soils	Green House Gas Emissions	Hazards and Haz-Materials	Hydrology and Water Quality	Land Use	Noise and Vibration	Population and Housing	Public Services and Recreation	Transportation	Tribal Cultural Resources	Utilities and Service Systems	Growth Inducing Impacts
No Project Alternative	NI	SU	NI	NI	NI	NI	SU	NI	LTS	SU	NI	NI	NI	SU	NI	NI	NI
Alt 1 ¹	LTS	LTS	LTSM	LTSM	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS
LPA ²	LTS	LTS	LTSM	LTSM	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS

Source: CDM Smith/AECOM JV, 2022.

Notes:

¹ Includes Alternative 1 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option and the Montebello MSF

² The LPA includes Alternative 3 with the Atlantic/Pomona Station Option, the Montebello At-Grade Option, and the Montebello MSF.

Key: NI = No Impact; LTS = Less Than Significant; LTSM = Less Than Significant with Mitigation; SU = Significant and Unavoidable

Table ES-5. Summary of Impact Evaluation of Recirculated Draft EIR

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Aesthetics	AES-1	Vistas	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	AES-2	Scenic Highways	Alt 1:	No Impact	None	No Impact
			LPA:	No Impact	None	No Impact
	AES-3	Visual Character	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	AES-4	Light and Glare	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
Air Quality	AQ-1	Air Quality Plan	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	AQ-2	Regional Criteria Pollutant Emissions	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	AQ-3	Localized Pollutant Concentrations	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	AQ-4	Other Emissions	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HR-1	Human Health Risks	Alt 1:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			LPA:	Less Than Significant	None	Less Than Significant
Biological Resources	BIO-1	Protected Species	Alt 1:	Potentially Significant	- MM BIO-1 (Bat Emergence Surveys) - MM BIO-2 (Bat Nesting Survey) - MM BIO-3 (Bat Exclusion Plan and Measures) - MM BIO-4 (Bird Nesting Survey)	Less Than Significant
			LPA:	Potentially Significant	MM BIO-4 (Bird Nesting Survey)	Less Than Significant
	BIO-2	Riparian Habitat/ Sensitive Natural Communities	Alt 1:	Potentially Significant	- MM BIO-5 (Invasive Plant and Infectious Tree Disease Mitigation Plan) - MM BIO-6 (Tire Cleaning to reduce spread of Invasive Species)	Less Than Significant
			LPA:	Less than Significant	None	Less Than Significant
	BIO-3	Movement of Fish and Wildlife Species	Alt 1:	Less than Significant	None	Less Than Significant
			LPA:	No Impact	None	No Impact
	BIO-4	Policies/ Ordinances	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
Cultural Resources	CUL-1	Historical Resources	Alt 1:	Potentially Significant	- MM CUL-1 (Protection Measures for the Golden Gate Theatre) - MM CUL-4 (Protection Measures for Dal Rae Restaurant Sign)	Less Than Significant
			LPA:	Potentially Significant	MM CUL-1 (Protection Measures for the Golden Gate Theatre)	Less Than Significant
	CUL-2	Archaeological Resources	Alt 1:	Potentially Significant	- MM CUL-7 (Site of the Battle of Rio San Gabriel) - MM CUL-8 (Unknown Archaeological Resources)	Less Than Significant
			LPA:	Potentially Significant	MM CUL-8 (Unknown Archaeological Resources)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	CUL-3	Disturbance of Human Remains	Alt 1:	Potentially Significant	• MM CUL-9 (Unanticipated Discovery of Human Remains)	Less Than Significant
			LPA:	Potentially Significant	• MM CUL-9 (Unanticipated Discovery of Human Remains)	Less Than Significant
Energy	ENG-1	Energy Consumption	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	ENG-2	Energy Plans	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
Geology, Soils, Seismicity, and Paleontological Resources	GEO-1	Exposure to Seismic Hazards	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	GEO-2	Soil Erosion	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	GEO-3	Soil Stability	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	GEO-4	Expansive Soils	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	GEO-5	Paleontological Resources	Alt 1:	Potentially Significant	• MM GEO-1 (retaining a qualified paleontologist and a qualified paleontological monitor) • MM GEO-2 (ability to readily salvage fossils and samples of sediment) • MM GEO-3 (ability to identify and permanently preserve specimens) • MM GEO-4 (ability to curate specimen to a professional accredited museum repository)	Significant Unavoidable when tunneling using a TBM; Less Than Significant for all other construction and during operations
			LPA:	Potentially Significant	• MM GEO-1 (retaining a qualified paleontologist and a qualified paleontological monitor) • MM GEO-2 (ability to readily salvage fossils and samples of sediment) • MM GEO-3 (ability to identify and permanently preserve specimens) • MM GEO-4 (ability to curate specimen to a professional accredited museum repository)	Significant Unavoidable when tunneling using a TBM; Less Than Significant for all other construction and during operations
Greenhouse Gas Emissions	GHG-1	Emission Generation	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	GHG-2	Conflicts	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
Hazards and Hazardous Materials	HAZ-1	Transport, Storage, Use, or Disposal of Hazardous Materials	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	HAZ-2	Release of Hazardous Materials	Alt 1:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Assessment) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Safety Manuals and Construction Work Plans) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
			LPA:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Assessment) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Safety Manuals and Construction Work Plans) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
	HAZ-3	Hazardous Materials Within One-Quarter Mile of a School	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HAZ-4	Hazardous Materials Sites (Government Code Section 65962.5)	Alt 1:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Assessment) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Safety Manuals and Construction Work Plans) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			LPA:	Potentially Significant	- MM HAZ-1 (Phase II Environmental Site Assessment) - MM HAZ-2 (Soil and Groundwater Management Plan) - MM HAZ-3 (Contractor Specifications for Hazardous Materials) - MM HAZ-4 (Safety Manuals and Construction Work Plans) - MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
	HAZ-5	Airport Land Use Plans	Alt 1:	No Impact	None	No Impact
			LPA:	No Impact	None	No Impact
	HAZ-6	Emergency Response or Emergency Evacuation Plan	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HAZ-7	Wildland Hazards	Alt 1:	No Impact	None	No Impact
			LPA:	No Impact	None	No Impact
Hydrology and Water Quality	HWQ-1	Water Quality	Alt 1:	Potentially Significant	- MM HWQ-1 (Work Area Isolation at Rio Hondo, Rio Hondo Spreading Grounds, or San Gabriel River) - MM HAZ-2 (Soil and Groundwater Management Plan) - MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
			LPA:	Potentially Significant	- MM HAZ-2 (Soil and Groundwater Management Plan) - MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
	HWQ-2	Groundwater Supplies and Recharge	Alt 1:	Potentially Significant	MM HWQ-2 (Compensatory Mitigation due to LRT Bridge Piers)	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HWQ-3(i)	Erosion and Siltation	Alt 1:	Potentially Significant	MM HWQ-1 (Work Area Isolation at Rio Hondo, Rio Hondo Spreading Grounds, or San Gabriel River)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			LPA:	Less Than Significant	None	Less Than Significant
	HWQ-3(ii)	Surface Runoff	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HWQ-3(iii)	Stormwater Drainage	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	HWQ-3(iv)	Flood Flows	Alt 1:	Potentially Significant	• MM HWQ-2 (Compensatory Mitigation due to LRT Bridge Piers)	Less Than Significant
			LPA:	No Impact	None	No Impact
	HWQ-4	Inundation	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	No Impact	None	No Impact
	HWQ-5	Water Management	Alt 1:	Potentially Significant	• MM HWQ-1 (Work Area Isolation at Rio Hondo, Rio Hondo Spreading Grounds, or San Gabriel River) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
			LPA:	Potentially Significant	• MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
Land Use and Planning	LUP-1	Dividing an Established Community	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	LUP-2	Plan, Policy or Regulation	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Noise and Vibration	NOI-1	Ambient Noise	Alt 1:	Potentially Significant	• MM NOI-1 (Construction Noise Plan and Noise Monitoring Plan) • MM NOI-2 (Cast-in-Drilled-Hole Construction Methodology) • MM NOI-3 (Noise Barriers) • MM NOI-4 (Construction Staging Area) • MM NOI-5 (Haul Routes) • MM NOI-6 (Best Available Control Technologies) • MM NOI-7 (Replaced by MM NOI-1) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Spoil Removal Equipment) • MM NOI-10 (Construction Staging) • MM NOI-11 (Placement of Tunnel Vent Fans)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	NOI-1	Ambient Noise	LPA:	Potentially Significant	• MM NOI-1 (Construction Noise Plan and Noise Monitoring Plan) • MM NOI-2 (Cast-in-Drilled-Hole Construction Methodology) • MM NOI-3 (Noise Barriers) • MM NOI-4 (Construction Staging Area) • MM NOI-5 (Haul Routes) • MM NOI-6 (Best Available Control Technologies) • MM NOI-7 (Replaced by MM NOI-1) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Spoil Removal Equipment) • MM NOI-10 (Construction Staging) • MM NOI-11 (Placement of Tunnel Vent Fans)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	NOI-2	Ground Borne Vibration	Alt 1:	Potentially Significant	• MM NOI-2 (Cast-in-Drilled-Hole Construction Methodology) • MM NOI-4 (Construction Staging Area) • MM NOI-5 (Haul Routes) • MM NOI-7 (Replaced by MM NOI-1) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Spoil Removal Equipment) • MM NOI-12 (High Resilience Track Support Systems) • MM NOI-13 (Gapless Switches) • MM NOI-14 (Vibration Pre-Construction Survey) • MM NOI-15 (Construction Vibration Plan and Vibration Monitoring Plan)	Less Than Significant
	NOI-2	Ground Borne Vibration	LPA:	Potentially Significant	• MM NOI-2 (Cast-in-Drilled-Hole Construction Methodology) • MM NOI-4 (Construction Staging Area) • MM NOI-5 (Haul Routes) • MM NOI-7 (Replaced by MM NOI-1) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Spoil Removal Equipment) • MM NOI-12 (High Resilience Track Support Systems) • MM NOI-13 (Gapless Switches) • MM NOI-14 (Vibration Pre-Construction Survey) • MM NOI-15 (Construction Vibration Plan and Vibration Monitoring Plan)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Population and Housing	PPH-1	Unplanned Population Growth	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	PPH-2	Displacement	Alt 1:	No Impact	None	No Impact
			LPA:	No Impact	None	No Impact
Public Services and Recreation	PSR-1	Public Services	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	PSR-2	Increased Recreation	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	PSR-3	New Recreation Facilities	Alt 1:	No Impact	None	No Impact
			LPA:	No Impact	None	No Impact
Transportation and Traffic	TRA-1	Conflict with Programs, Plans, and Policies	Alt 1:	Potentially Significant	• MM TRA-1 (Traffic Management Plan)	Less Than Significant
			LPA:	Potentially Significant	• MM TRA-1 (Traffic Management Plan)	Less Than Significant
	TRA-2	Conflict with CEQA Guidelines	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	TRA-3	Design Hazards or Incompatible Uses	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	TRA-4	Inadequate Emergency Access	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Tribal Cultural Resources	TCR-1	Historical Resources	Alt 1:	Potentially Significant	• MM TCR-1 (Tribal Cultural Resources Training) • MM TCR-2 (Retain a Native American Monitor) • MM TCR-3 (Unknown Tribal Cultural Resources)	Less Than Significant
			LPA:	Potentially Significant	• MM TCR-1 (Tribal Cultural Resources Training) • MM TCR-2 (Retain a Native American Monitor) • MM TCR-3 (Unknown Tribal Cultural Resources)	Less Than Significant
	TCR-2	Native Tribal Significance	Alt 1:	Potentially Significant	• MM TCR-1 (Tribal Cultural Resources Training) • MM TCR-2 (Retain a Native American Monitor) • MM TCR-3 (Unknown Tribal Cultural Resources)	Less Than Significant
			LPA:	Potentially Significant	• MM TCR-1 (Tribal Cultural Resources Training) • MM TCR-2 (Retain a Native American Monitor) • MM TCR-3 (Unknown Tribal Cultural Resources)	Less Than Significant
Utilities and Service Systems	UTL-1	Relocation or Construction	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	UTL-2	Water Supplies	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	UTL-3	Wastewater	Alt 1:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			LPA:	Less Than Significant	None	Less Than Significant
	UTL-4	Solid Waste	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
	UTL-5	Regulations	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant
Growth Inducing	GRW-1	Growth Inducing	Alt 1:	Less Than Significant	None	Less Than Significant
			LPA:	Less Than Significant	None	Less Than Significant

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