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Agenda - Final

Wednesday, November 16, 2022

10:30 AM

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Planning and Programming Committee

Ara J. Najarian, Chair
Eric Garcetti, Vice Chair
James Butts
Jacquelyn Dupont-Walker
Fernando Dutra
Hilda Solis
Gloria Roberts (Interim), non-voting member

Stephanie Wiggins, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES
(ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

The public may also address the Board on non agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for one (1) minute during this Public Comment period or at the discretion of the Chair. Speakers will be called according to the order in which their requests are submitted. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

CONDUCT IN THE BOARD ROOM - The following rules pertain to conduct at Metropolitan Transportation Authority meetings:

REMOVAL FROM THE BOARD ROOM The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
d. Any other unlawful interference with the due and orderly course of said meeting.

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The State Political Reform Act (Government Code Section 84308) requires that a party to a proceeding before an agency involving a license, permit, or other entitlement for use, including all contracts (other than competitively bid, labor, or personal employment contracts), shall disclose on the record of the proceeding any contributions in an amount of more than $250 made within the preceding 12 months by the party, or his or her agent, to any officer of the agency, additionally PUC Code Sec. 130051.20 requires that no member accept a contribution of over ten dollars ($10) in value or amount from a construction company, engineering firm, consultant, legal firm, or any company, vendor, or business entity that has contracted with the authority in the preceding four years. Persons required to make this disclosure shall do so by filling out a "Disclosure of Contribution" form which is available at the LACMTA Board and Committee Meetings. Failure to comply with this requirement may result in the assessment of civil or criminal penalties.

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323.466.3876
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x3 中文 *(Chinese)*
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x5 Tiếng Việt *(Vietnamese)*
x6 日本語 *(Japanese)*
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x8 Հայերէն *(Armenian)*

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Live Public Comment Instructions:

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The Committee Meeting begins at 10:30 AM Pacific Time on November 16, 2022; you may join the call 5 minutes prior to the start of the meeting.

Dial-in: 888-251-2949 and enter
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Public comment will be taken as the Board takes up each item. To give public comment on an item, enter #2 (pound-two) when prompted. Please note that the live video feed lags about 30 seconds behind the actual meeting. There is no lag on the public comment dial-in line.

Instrucciones para comentarios publicos en vivo:

Los comentarios publicos en vivo solo se pueden dar por telefono.

La Reunion de la Junta comienza a las 10:30 AM, hora del Pacifico, el 16 de Noviembre de 2022. Puedes unirte a la llamada 5 minutos antes del comienso de la junta.

Marque: 888-251-2949 y ingrese el codigo
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Los comentarios del público se tomaran cuando se toma cada tema. Para dar un comentario público sobre una tema ingrese # 2 (Tecla de numero y dos) cuando se le solicite. Tenga en cuenta que la transmisión de video en vivo se retrasa unos 30 segundos con respecto a la reunión real. No hay retraso en la línea de acceso telefónico para comentarios públicos.

Written Public Comment Instruction:

Written public comments must be received by 5PM the day before the meeting.
Please include the Item # in your comment and your position of “FOR,” “AGAINST,” "GENERAL COMMENT," or "ITEM NEEDS MORE CONSIDERATION."
Email: BoardClerk@metro.net
Post Office Mail:
Board Administration
One Gateway Plaza
MS: 99-3-1
Los Angeles, CA 90012

CALL TO ORDER

ROLL CALL

APPROVE Consent Calendar Items: 8, 9, 10, 11, 12, 13, and 14.

Consent Calendar items are approved by one vote unless held by a Director for discussion and/or separate action.

CONSENT CALENDAR

8. SUBJECT: PEABODY WERDEN HOUSE LEASE OPTION AGREEMENT 2022-0585

RECOMMENDATION

CONSIDER:

A. AUTHORIZING the Chief Executive Officer to execute an Option Agreement with East Los Angeles Community Corporation (Developer or ELACC) for the ground lease of Metro-owned property at 2400 E. 1st Street in Boyle Heights (Project Site);

B. ADOPTING findings that the Peabody Werden House (Project) restoration and rehabilitation is categorically exempt from the California Environmental Quality Act, Cal. Pub. Res. Code §§ 21000 *et seq.* (CEQA) pursuant to Section 21084 of the California Public Resource Code and the following sections of the CEQA Guidelines, each of which provides separate and independent bases for exemption: (i) Sections 15301(d), (n), and (p) (existing facilities); (ii) Section 15302(c) (replacement or reconstruction of existing facilities involving negligible or no expansion of capacity); (iii) Section 15325(e) (transfers of ownership in the land to preserve existing natural conditions and historical resources); and (iv) Section 15332 (in-fill development projects); and

C. AUTHORIZING the Chief Executive Officer to file a Notice of Exemption for the Project consistent with such exemptions.

Attachments: Attachment A - Site Map
Attachment B - Term Sheet
Presentation

9. SUBJECT: EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT (ESFVTC) SUPPLEMENTAL ANALYSIS OF PHASE 2 CORRIDOR FROM VAN NUYS BOULEVARD/SAN FERNANDO ROAD TO SYLMAR/SAN FERNANDO STATION 2022-0647

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING update on Phase 1 of the ESFVTC Shared ROW Study; and

B. AUTHORIZING the Chief Executive Officer to execute Modification No. 2 for Optional Phase 2 of Task Order No. PS80628-5433000 to Mott MacDonald for professional services for Supplemental Analysis on the East San Fernando Valley Transit Corridor (ESFVTC) from Sylmar/San Fernando to Van Nuys Boulevard (Shared ROW Study) in the amount of $1,463,005, increasing the task order value from $343,218 to $1,806,223, and extending the period of performance from December 30, 2022, to June 30, 2024.

Attachments:
Attachment A - Metro Board Motion 10.1 (December 2020)
Attachment B - ESFV Maps
Attachment C - Procurement Summary
Attachment D - DEOD Summary
Attachment E - Contract Modification Change Order Log
Presentation

10. SUBJECT: FEDERAL TRANSIT ADMINISTRATION SECTION 5310 GRANT PROGRAM FUNDING OPPORTUNITY FOR THE FISCAL YEAR 2023 2022-0659

RECOMMENDATION

CONSIDER:

A. APPROVING the Fiscal Year (FY) 2023 Solicitation for Proposals for up to $13,845,982 in funds under the Federal Transit Administration (FTA) Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program; and

B. ALLOCATING $14,748,981 in FTA Section 5310 funds for Access Services as identified by the FY 2023 funding allocation process for traditional capital projects to support complementary paratransit service required by the Americans with Disabilities Act (ADA) of 1990.

Attachments: Attachment A - FY23 Section 5310 Funding Allocation Process

Attachment B - FY23 Section 5310 Solicitation for Proposals App. Package

11. SUBJECT: ACCESS FOR ALL PROGRAM FUNDING OPPORTUNITY FOR THE FISCAL YEAR 2023 2022-0661

RECOMMENDATION

APPROVE the Fiscal Year (FY) 2023 Solicitation for Proposals for up to $7,865,833 in funds available to Metro through the State of California's Access for All Program.

Attachments: Attachment A - FY 2023 AFA Solicitation for Proposals Application Package

12. SUBJECT: AUTHORIZATION FOR METRO SUPPORT SERVICES FOR METROLINK SCORE PHASE 1 PROGRAM 2022-0683

RECOMMENDATION

AUTHORIZE the Chief Executive Officer or her designee to:

A. PROCEED with property acquisition and negotiation related activities in support of the Chatsworth Station Improvements, El Monte Siding Extension, Marengo Siding Extension, and Burbank Junction Speed Improvements Metrolink SCORE Phase 1 Program capital projects within Los Angeles County (SCORE Projects);

B. EXECUTE funding agreements with SCRRA in the amount of $4,177,500 for the SCORE Projects; and,

C. NEGOTIATE AND EXECUTE all necessary agreements and/or amendments with SCRRA for Metro support associated with the SCORE Projects.

Attachments: Attachment A - SCORE Program Fact Sheet

Attachment B - SCORE Phase 1 Projects

Attachment C - Metro Tasks in Support of SCORE Phase 1 Program

13. SUBJECT: TRANSPORTATION COMMUNICATION NETWORK ENVIRONMENTAL IMPACT REPORT 2022-0695

RECOMMENDATION

CONSIDER:

A. APPROVING the Transportation Communication Network (TCN) Project;

B. CERTIFYING, in accordance with the California Environmental Quality Act

(CEQA), the Final Environmental Impact Report (Final EIR) for the Transportation Communication Network, if the Board concludes that it satisfies the requirements of CEQA and reflects the Board's independent judgment following CEQA Guidelines, section 15090;

C. ADOPTING, in accordance with CEQA, the:
   1. Findings of Fact;
   2. Mitigation Monitoring and Reporting Program; and

D. AUTHORIZING the Chief Executive Officer to file a Notice of Determination with the Los Angeles County Clerk and the State of California Clearinghouse.

Attachments: Attachment A - Locations
Attachment B - Findings of Fact
Attachment C - Mitigation Monitoring and Reporting Program
Attachment D - Notice of Determination
Presentation

14. SUBJECT: ADOPTION OF THE METRO 2022 ALL-HAZARD MITIGATION PLAN 2022-0733

RECOMMENDATION

APPROVE the All-Hazard Mitigation Plan Resolution in Attachment A that:

A. ADOPTS the Metro 2022 All-Hazards Mitigation Plan in Attachment B;

B. AUTHORIZES the Emergency Management Department to forward the resolution of adoption to FEMA for issuance of the Final Letter of Approval. Upon receipt, the Final Letter of Approval will be included in the Final Plan; and

C. AUTHORIZES the Emergency Management Department, in collaboration with Countywide Planning and Development, to pursue FEMA preparedness grant funding to support all Metro departments and collaborative stakeholders.

Attachments: Attachment A - All-Hazards Mitigation Plan Resolution
Attachment B - Metro 2022 All-Hazards Mitigation Plan
Attachment C - FEMA Approvable Pending Adoption Notice
Attachment D - FEMA Region IX Local Mitigation Plan Review Tool

NON-CONSENT

15. SUBJECT: TRANSIT ORIENTED COMMUNITIES ECONOMIC DEVELOPMENT PROGRAM AND INVESTMENT FUND 2022-0504

RECOMMENDATION

CONSIDER:

A. APPROVING the Transit Oriented Communities Economic Development Program (EDP) and $5 million for the implementation of the Transit Oriented Communities Economic Development Investment Fund ("Fund") with disbursement contingent upon the Metro Board of Directors (Board) approval of the Fund Guidelines; and

B. AUTHORIZING the Chief Executive Officer or designee to enter into multiple agreements with financial institutions, the State of California, County of Los Angeles, cities, and other eligible entities to contribute to the Fund.

Attachments: Attachment A - Corridor Maps
Attachment B - Metro Board Motions
Presentation

16. SUBJECT: NORTH SAN FERNANDO VALLEY TRANSIT CORRIDOR 2022-0578

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING:

1. The North San Fernando Valley (NSFV) Transit Corridor environmental study findings per Senate Bill 288 Statutory Exemption requirements; and

2. The outreach summary report for community meetings and stakeholder briefings conducted throughout spring to fall 2022;

B. APPROVING the Proposed Measure M NSFV Bus Rapid Transit (BRT) Network Improvements Project for implementation;

C. APPROVING the finding that the Proposed Project is statutorily exempt from CEQA under Sections 21080.19 and 21080.25(b); and

D. AUTHORIZING the Chief Executive Officer to file a CEQA Notice of

Exemption (NOE) for the Project with the Los Angeles County Clerk.

Attachments: Attachment A - NSFV BRT Network Improvements Project Map
Attachment B - CEQA Statutory Exemption Notice of Exemption
Attachment C - Spring-Fall 2022 Outreach Summary
Presentation

17. SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2 PROJECT 2022-0684

RECOMMENDATION

CONSIDER:

A. APPROVING the Lambert Station in the City of Whittier the terminus for the 9 miles Eastside Transit Corridor Phase 2 project and authorizing the preparation of the final Environmental Impact Report (EIR) for the full project through California Environmental Quality Act (CEQA);

B. APPROVING the Locally Preferred Alternative (LPA) as Alternative 3: IOS Greenwood, between the existing terminus of Metro L (Gold) Line to Greenwood Station; with design options for Atlantic/Pomona (open underground station) and Greenwood Station (at-grade) and a Maintenance and Storage Facility (at-grade) located in the city of Montebello; and

C. APPROVING the results of the Title VI Equity Analysis: Siting and Location of Maintenance and Storage Facility Sites for the Eastside Transit Corridor Phase 2 project;

D. AUTHORIZING the Chief Executive Officer to execute Modification No. 22 to Contract No. PS4320-2003 with CDM Smith/AECOM Joint Venture (JV) Technical and Outreach Services to reinitiate the National Environmental Policy Act (NEPA) environmental clearance process in the amount of $4,748,305, increasing the total current contract value from $27,585,479 to $32,333,784 and extend the period of performance from December 30, 2022, to December 31, 2024.

Attachments: Attachment A - Eastside Phase 2 DEIR-Executive Summary
Attachment B - Eastside Phase 2 Project Map
Attachment C - Eastside Transit Corridor Phase 2 Title VI Equity Analysis
Attachment D - Procurement Summary
Attachment E - Contract Modification Change Order Log
Attachment F - DEOD Summary

18. SUBJECT: MULTIMODAL HIGHWAY PROGRAM ON-CALL - PROJECT & PROGRAM DELIVERY SUPPORT SERVICES 2022-0722

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

A. EXECUTE Contract Nos. AE89212000 with HDR Engineering, Inc.; AE89212001 with HNTB Corporation; AE89212002 with Parsons Transportation Group; AE89212003 with TranSystems Corporation; and AE89212004 with WSP USA, Inc., respectively, for Multimodal Highway Program and Project Delivery Support Services and other related work, for a three-year base period for an aggregate not-to-exceed amount of $55,000,000 and one, one-year option term for a not-to-exceed amount of $5,000,000, for a total not-to-exceed amount of $60,000,000, subject to resolution of properly submitted protest(s), if any; and

B. EXECUTE Task Orders within the approved not to exceed cumulative value.

Attachments: Attachment A - Procurement Summary
Attachment B - DEOD Summary

19. SUBJECT: SR-14 TRAFFIC SAFETY IMPROVEMENTS PROJECT 2022-0723

RECOMMENDATION

RECEIVE AND FILE status report on the SR-14 Traffic Safety Improvements Project.

Attachments: Attachment A - SR-14 Traffic Safety Improvements Motion 10

SUBJECT: GENERAL PUBLIC COMMENT 2022-0774

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE'S SUBJECT MATTER JURISDICTION

Adjournment

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0585, **File Type:** Program **Agenda Number:** 8.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: PEABODY WERDEN HOUSE LEASE OPTION AGREEMENT

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. AUTHORIZING the Chief Executive Officer to execute an Option Agreement with East Los Angeles Community Corporation (Developer or ELACC) for the ground lease of Metro-owned property at 2400 E. 1st Street in Boyle Heights (Project Site);

B. ADOPTING findings that the Peabody Werden House (Project) restoration and rehabilitation is categorically exempt from the California Environmental Quality Act, Cal. Pub. Res. Code §§ 21000 *et seq.* (CEQA) pursuant to Section 21084 of the California Public Resource Code and the following sections of the CEQA Guidelines, each of which provides separate and independent bases for exemption: (i) Sections 15301(d), (n), and (p) (existing facilities); (ii) Section 15302(c) (replacement or reconstruction of existing facilities involving negligible or no expansion of capacity); (iii) Section 15325(e) (transfers of ownership in the land to preserve existing natural conditions and historical resources); and (iv) Section 15332 (in-fill development projects); and

C. AUTHORIZING the Chief Executive Officer to file a Notice of Exemption for the Project consistent with such exemptions.

ISSUE

In 2016, the Board of Directors authorized Metro staff to execute an Exclusive Negotiation Agreement and Planning Document (ENA) with ELACC and their development partner, Bridge Housing Corporation (Bridge), in support of a Joint Development project located adjacent to the 1st and Soto L (Gold) Line Station. Among other things, the ENA contemplated the restoration of an 1890's Victorian house commonly known as the Peabody Werden House (House) for community serving purposes sited on a portion of the Metro-owned joint development site located at 2400 E. 1st Street in Boyle Heights (Site B or the Project Site).
ELACC and Metro have developed a plan for renovation and programming of the House and are seeking authority to enter into an Option Agreement (Option) no later than December 31, 2022, to

satisfy certain statutory requirements under the California Surplus Land Act (SLA). Should the recommended actions be approved, additional planning, design, and community outreach will occur under the Option.

..Background

BACKGROUND

The Peabody Werden House is a “Queen Anne” Victorian style home built in approximately 1895 and currently owned by ELACC. The House sits on the Project Site, an approximately 0.29 acres of Metro-owned land at the southeast corner of 1st and Soto Street (Site B), across the street from the 1st and Soto Station and Los Lirios Apartments development site (Site A) (see Attachment A - Site Map).

In 2013, Metro issued a competitive Request for Proposal for both Site A and Site B, resulting in a short-term ENA with Bridge and ELACC. Following additional community engagement, in March 2016, the Board authorized a full ENA with Bridge and ELACC, which contemplated the placement and restoration of the House on Site B for a community-serving purpose. The House was originally located on an ELACC-owned property at the northeast corner of 1st and Soto Street, on which ELACC had plans to build a now-completed housing development (Cielito Lindo Apartments). Rather than demolish the House, ELACC worked with Metro to move it to Site B in 2016.

Funding sources for such rehabilitations are different and more limited than the sources available for new affordable housing projects, so the timeline for the development of the Site B Project was bifurcated from that of the Site A Project.

In March 2021, Metro and ELACC/Bridge entered into a Joint Development Agreement (JDA) to develop the affordable housing project on Site A. As of December 8, 2021, Metro ground leased Site A to develop the mixed-use affordable housing project, commonly known as the Los Lirios Apartments. Construction commenced in early 2022, is expected to be completed by the end of 2023, and will be available for tenant lease-up during the first quarter of 2024.

With Site A ground leased for the affordable housing component, the ENA was amended to allow for the continued planning and negotiations for the Site B Project, including negotiations regarding the terms and conditions under which an option to ground lease Site B would be granted.

DISCUSSION

The Developer’s underlying Project consists of the restoration and rehabilitation of the Victorian era House for community serving purposes. The target population will be low- and moderate-income households that live in and around the Boyle Heights community. Under the ENA, the Developer has prepared an initial construction cost budget and related studies in support of the renovation of the House. The cost of remodeling the House for adaptive community uses is estimated to be approximately $3.2 million. The House will need accessible upgrades such as a ramp and an accessible bathroom or kitchen, as well as the installation of an HVAC system for it to be used for community serving needs. Though it is not on the Historic Register, the Developer intends to rehabilitate the House consistent with its turn-of-the-twentieth century look, finish, and color palette.

ELACC is interested in working with a development partner that has the financial capacity and operating expertise to preserve and restore/rehabilitate the House and turn it into a community serving space. It is anticipated that such an entity would assist with funding the House's design, permit, restoration and programming. ELACC would require a joint venture agreement or similar instrument with the development partner to accomplish these goals in alignment with the Option. ELACC is presently speaking with several viable organizations to explore joint venture opportunities. The Developer is expected to engage community members to discuss the full spectrum of potential services once the Option is executed. In addition to community services, input will also be sought for the landscaping and greening of Site B, as well as a call for public art for the Project.

The Option Agreement will include specific deal terms, which can be found in the attached Term Sheet (see Attachment B - Peabody Werden House Term Sheet). Before entering into any ground lease for the Project, the Developer would be required to satisfy certain closing conditions set forth in the Option, including:

- Delivery of financial assurances to Metro evidencing the ability to pay for all rehabilitation costs.
- Metro review and approval of all construction documents in final form.
- Evidence of all governmental approvals, including building permits, will allow the Developer to build out the Site B Project successfully.
- Delivery of all performance bonds and completion guarantees necessary to demonstrate successful completion as evidenced by a certificate of occupancy.
- Metro will have reviewed and approved all proposed community services and related programming contemplated by the Developer.

The Option period will encompass one year with the ability to extend it for two additional one-year periods at the discretion of Metro. As proposed, the option would be for a ground lease term (Term) for a period of 20 years with two (2) five-year options to extend at the discretion of both parties. During the Term, the Developer would be solely responsible for upkeep and maintenance of the Site B Project. Metro will reserve the right to conduct regular monitoring reviews of Site B along with the programmatic activities to ensure conformance with community serving uses. A fee of $25,000 will be collected from the Developer during the Option period to pay for third-party consultant costs.

Bridge has assigned its remaining interest in the ENA to ELACC such that ELACC remains the only developer for the Site B Project. Upon execution of the Option, the Developer intends to conduct additional community outreach and select a service provider with the financial capacity and operational experience to assist in the rehabilitation process and operate the updated facility on a long-term basis. Ultimate oversight and control of the House would be established through a ground lease with Metro.

To the extent the Developer does not exercise the Option, Metro will issue a separate procurement in conformance with HCD and the SLA. This will entail seeking an affordable housing use over a community serving project. In this case, the outcome of the House and its future viability would be unknown.

EQUITY PLATFORM

The proposed development at the Project Site is representative of Metro's JD Program to pursue greatly needed community services in conjunction with and in close proximity to high quality affordable housing opportunities, among other community policy goals. Adopted in June 2021, the Metro JD Policy is centered on four main goals: (1) equity and inclusion, (2) access, (3) performance, and (4) innovation. The JD Policy Mission Statement is to "create high-quality homes, jobs, and places near transit for those who need them most, as soon as possible."

The eventual restoration/rehabilitation of the House for adaptive community uses next to an existing Joint Development affordable housing project will create an enhanced community serving public infrastructure, jobs, and other transit-supportive amenities. The Project also creates opportunities to enhance access to Metro's L Line (Gold).

This Project falls within an Equity Focused Community, benefitting community members adjacent to the Project and other lower income Los Angeles County residents in need of social services and affordable housing. The Developer will continue building on the years of prior community outreach for this Project as specified by the requirements under the ENA and commitments identified within the Option.

In response to community and stakeholder concerns, the Option will provide a path forward for identifying key community-based services currently lacking in the immediate area. The intent is to build out the facility and provide such services on a long-term basis through a credible non-profit and/or related entity with the required organizational capacity and demonstrated track record to maintain a facility like the House long-term. To achieve this outcome, ELACC intends to stabilize the House and work with the service provider to provide the appropriate community services. Onsite activities may include but are not limited to, a senior citizens nutrition center, literacy workshops, housing, and employment guidance opportunities.

As part of any future construction activities, Metro will require the Developer to submit a construction work plan that addresses mitigation measures to limit dust, traffic, and noise for surrounding small businesses and neighbors. During the Term of the Option, the Developer will work with Metro to define programmatic services and the target audience. Initial discussions have focused on offering services to residents of Boyle Heights and the surrounding area with a specific focus on those considered low- and moderate-income. This will be verified and documented as part of the service intake process once the Project is operational.

Throughout this process, the Developer has expressed a strong commitment to community engagement and share Metro's belief that stakeholder input will be critical to this effort's success. Once the Project's entitlements have been submitted, community engagement in coordination with the Developer will involve different methods such as design review workshops (online and/or in-person when possible) public neighborhood council meetings, and potential pop-up events. As with similar JD outreach efforts, engagement will be conducted in English, Spanish, and other languages

deemed appropriate to reach a broad audience of stakeholders.

DETERMINATION OF SAFETY IMPACT

Approval of the Option Agreement will have no direct impact on safety. Proposed work on the House or Site B will be reviewed by Construction Management, Operations, as well as Metro Safety and Security to ensure there are no indirect safety impacts and that any improvements contribute to safer, more secure station environment.

FINANCIAL IMPACT

Funding for joint development activities related to the Option and the Project is included in the adopted FY23 budget in Cost Center 2210, Project 401019 (1st and Soto).

Impact to Budget

There is no impact to the FY23 budget. If executed, the Option will require the Developer to pay Metro a $25,000 Option fee, which staff have determined will be adequate to cover actual costs incurred by Metro in the planning and negotiations of a ground lease.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan Goal #2 to provide outstanding trip experiences for all users of the transportation system and Goal #3, to enhance community and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The alternative to pursuing an Option with the Developer would entail missing the SLA identified deadline for having a binding agreement in place by December 31, 2022. In doing so Metro would have to take possession of the House and issue a procurement for the redevelopment of Site B as a "housing first" development as prescribed by the SLA. This would be counter to the intent of the Metro Board in its original 2016 action and neighborhood stakeholders when a community-serving project was first proposed for Site B.

NEXT STEPS

Upon approval of the recommended action, staff will prepare and execute the Option. This process will need to be completed on or before December 31, 2022, to maintain compliance with the California Surplus Land Act's "grandfathering exemption" for the disposition of certain properties that meet the requirements set forth in Government Code Section 54234(a)(1).

Once the Option agreement is executed, staff will continue working with the Developer on plans for the restoration and rehabilitation of the House. In addition, staff will work with the Developer to continue to conduct Developer-led community outreach meetings regarding the potential programming, progress with entitlements and ongoing interface with community stakeholders. Presentations will also be given to the Boyle Heights Neighborhood Council as further progress is

made. Upon exercise of the Option by the Developer, and satisfaction of certain conditions precedent outlined in the Project Term Sheet, Metro and the Developer will enter into the ground lease for the Site B Project.

ATTACHMENTS

Attachment A - Site Map
Attachment B - Project Term Sheet

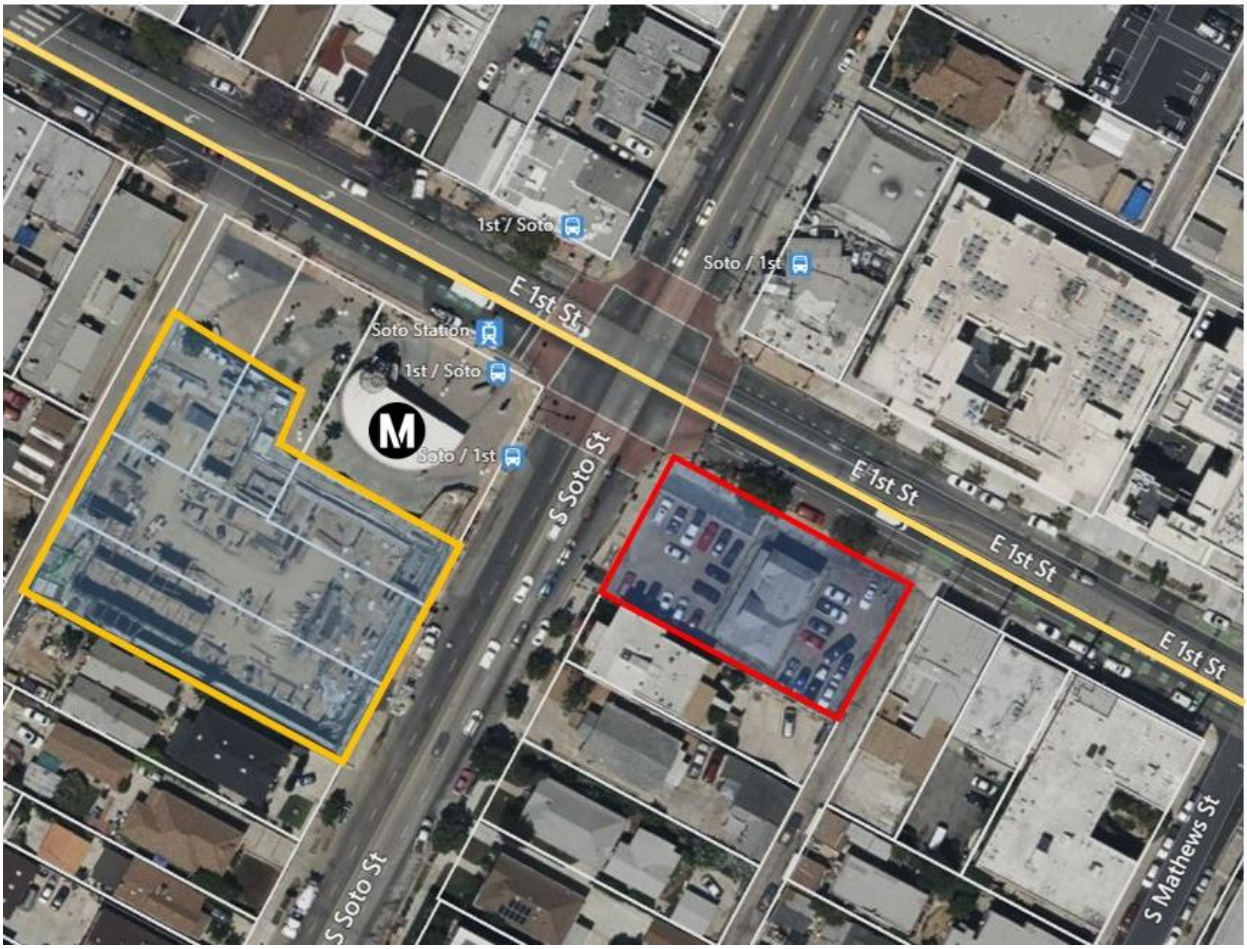
Prepared by: Jeffrey Ross, Senior Transportation Planner, Countywide Planning & Development, (213) 547-4200.
Carey Jenkins, Senior Director, Countywide Planning & Development, (213) 547-4356.
Wells Lawson, Deputy Executive Officer, Countywide Planning & Development, (213) 547-4204.
Nick Saponara, Executive Officer, Countywide Planning & Development, (213) 547-4329.
Holly Rockwell, SEO - Real Estate and Transit Oriented Communities, (213) 922-5585.

Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920

Stephanie N. Wiggins
Chief Executive Officer

Attachment A

Site Map



Site A: Metro property, Site of Los Lirios Apartments

Site B: Metro Project Site holding Peabody Werden House

Metro L (Gold) Line

1st/ Soto L Line Station Portal

SUMMARY OF KEY TERMS AND CONDITIONS OF OPTION AGREEMENT AND GROUND LEASE FOR 2400 EAST 1ST STREET (PEABODY WERDEN HOUSE)

DATED: NOVEMBER __, 2022

*This Summary of Key Terms and Conditions ("**Term Sheet**") outlines the key terms and conditions of a development transaction by and between the Los Angeles County Metropolitan Transportation Authority ("**LACMTA**") and East LA Community Corporation, a California nonprofit public benefit corporation (the "**Developer**"), with respect to certain LACMTA real property located at 2400 East 1st Street in the community of Boyle Heights, in the City of Los Angeles. The development transaction contemplates, among other things, (a) a proposed Option Agreement (the "**Option Agreement**") between LACMTA and Developer, and (b) a proposed ground lease (the "**Ground Lease**") between LACMTA and a limited partnership that is an affiliate of Developer and created for the purposes of the execution of the Project defined below ("**Ground Lease Tenant**"). The purpose and intent of this Term Sheet is to set forth the general terms and conditions of the development transaction, including the Option Agreement and Ground Lease. Any Section numbers referenced herein shall refer to the corresponding Section numbers in this Term Sheet.*

1. GENERAL DESCRIPTION

1.1 DEVELOPMENT SITE: LACMTA is the fee owner of that certain real property consisting of approximately 1.53 acres of land located in the community of Boyle Heights, at the intersection of 1st Street and Soto Street in the City of Los Angeles, County of Los Angeles, State of California, as more particularly described in Exhibit A attached hereto (the "**LACMTA Property**"). The LACMTA Property is comprised of two (2) sites, including (1) an approximately 1.24 acre portion that is located on the southwest corner of 1st Street and Soto Street ("**Site A**"), and (2) an approximately 0.29 acre portion that is located on the southeast corner of 1st Street and Soto Street, as more particularly depicted in Exhibit B ("**Site B**"). Site A has been ground leased for the development of an affordable housing project consisting of approximately sixty-four (64) rental apartment units, approximately two thousand four hundred and forty (2,440) square feet of commercial space, and approximately fifty (50) parking spaces (collectively, the "**Los Lirios Development**").

1.2 PROPOSED PROJECT: Developer was granted a license to place an approximately three thousand five hundred ninety-three (3,593) square foot, two-story single-family "Queen Anne" Victorian style home originally

constructed in the 1890s, which is commonly known as the Peabody Werden House (the "**House**"), on a portion of Site Bin 2016. Developer desires to lease a portion of Site B (as depicted in Exhibit B, the "**Premises**") from Metro in order to facilitate the restoration and rehabilitation of the House and surrounding Premises (the "**Project**") for the purpose of providing publicly accessible open space and community serving uses (the "**Community Services**") for the Los Lirios Development and surrounding community, the final programming of which shall be subject to LACMTA's review and approval.

1.3 SERVICE PROVIDER: In order to facilitate the completion and operation of the Project, Developer desires, subject to LACMTA's prior review and approval, to partner with a third-party service provider who will bring (a) financial capacity to develop the Project, and (b) substantial experience and expertise in providing the Community Services.

2. GENERAL CONDITIONS

2.1 DEVELOPMENT ENTITLEMENTS & OTHER LEGAL REQUIREMENTS: Prior to entering into the Ground Lease, Developer will have, at its sole cost and expense, obtained all required governmental approvals necessary for the Project, and shall comply with all applicable requirements of the land use authority, as well as any other applicable legal requirements related to or required for the Project.

2.2 AS-IS CONDITION: The Premises are being offered to Developer and Ground Lease Tenant under the Ground Lease in their as-is condition, without any warranty by LACMTA.

2.3 COMPLIANCE WITH LAWS: During the term of the Option Agreement and Ground Lease, Developer and Ground Lease Tenant (as applicable), at their sole expense, will comply with all applicable federal, state and local laws, ordinances, regulations, rules and orders with respect to their respective rights and responsibilities under the Option Agreement and Ground Lease, including but not limited to all applicable zoning, land use, planning and entitlement-related requirements and other legal requirements related to the Project. Developer will acknowledge in the Option Agreement that, in LACMTA's performance of its obligations and adherence to the terms and conditions of the Option Agreement, LACMTA is subject to all applicable federal and state laws (including, but not limited to, California Government Code Section 54220 *et seq.* (the

"**Surplus Land Act**")), and that LACMTA shall not be obligated to perform any obligation or adhere to any covenant under the Option Agreement if such performance or adherence would result in a violation of any such laws.

2.4 SUPERSEDURE: This Term Sheet supersedes and replaces any and all term sheets or summaries of key terms and conditions relating to the Premises, the Project or any joint development agreement or ground lease with respect to the Premises dated prior to the date of this Term Sheet. Notwithstanding the foregoing, that certain Exclusive Negotiation Agreement and Planning Document between LACMTA and Developer, dated June 22, 2016 (as amended, the "**ENA**"), shall remain in full force and effect and be unchanged by this Term Sheet.

3. KEY OPTION AGREEMENT TERMS:

3.1GENERAL: After the LACMTA Board has authorized execution of the Option Agreement and other transaction-related documents in accordance with this Term Sheet, then LACMTA and Developer will enter into an Option Agreement containing terms and conditions that are substantially consistent with those set forth in this Term Sheet, subject to any modifications as directed by the LACMTA Board that are agreed to by Developer.

3.2 TERM: The term of the Option Agreement (the "**Option Agreement Term**") would commence upon execution of the Option Agreement by LACMTA and Developer (the "**Option Agreement Commencement Date**") and expire on date ("**Option Agreement Expiration Date**") that is the earlier of: (a) the date that is twelve (12) months thereafter, or (b) the date on which the Ground Lease is executed by LACMTA and Ground Lease Tenant. Notwithstanding the foregoing, if LACMTA determines that Developer has been working in good faith to fulfill its obligations under the Option Agreement, LACMTA will have the ability to, in its sole and absolute discretion, extend the Option Agreement Expiration Date for up to two (2) consecutive periods of twelve (12) months each. LACMTA will have the right to terminate the Option Agreement for defaults that will be detailed in the Option Agreement, subject to applicable notice and cure periods.

3.3 HOLDING RENT: As consideration for the rights granted to Developer during the Option Agreement Term, commencing with the Option Agreement Commencement Date and continuing throughout the Option Agreement Term, Developer will pay LACMTA a monthly non-refundable holding rent ("**Holding Rent**") at the commencement of each month of the Option Agreement Term in an amount equal to one thousand dollars ($1,000). Holding Rent for partial months at

the beginning and end of the Option Agreement Term will be prorated. All Holding Rent due LACMTA will be non-refundable.

3.4 CLOSING/CONDITIONS TO CLOSING:

DURING THE OPTION AGREEMENT TERM, LACMTA AND DEVELOPER WILL (A) OPEN AN ESCROW **("Escrow**") with Commonwealth Title and (b) work in good faith to satisfy certain conditions precedent to execution of the Ground Lease that will be set forth in the Option Agreement (the "**Closing Conditions**"). When all of the Closing Conditions have been satisfied (or waived by the applicable party) and when Developer has assigned to Ground Lease Tenant Developer's right under the Option Agreement to enter into the Ground Lease, then Ground Lease Tenant and LACMTA will enter into the Ground Lease. The "**Closing**" shall occur on the date that Ground Lease Tenant and LACMTA enter into the Ground Lease and LACMTA receives all rent and other amounts then due LACMTA under the Option Agreement, the Ground Lease and all other documents and agreements related to the Project or the Ground Lease transaction. Documents related to Closing, including, without limitation, the Ground Lease, will be executed by LACMTA, as one party, and Developer and/or Ground Lease Tenant, as the other party(ies), as is necessary to properly effectuate the Closing.

The Closing Conditions will include, without limitation, the following requirements:

(i) Developer's delivery of evidence and assurances ("**Financial Assurances**") to LACMTA, via documentation provided by Developer to the satisfaction of LACMTA, demonstrating that Ground Lease Tenant has sufficient financial resources in place to execute the Project, which Financial Assurances will include evidence that all funding sources completion and operation of the Project are fully committed without reservation;

(ii) Developer's (or Ground Lease Tenant's) receipt of all governmental approvals necessary for the Project, including LACMTA's approval of any Final Construction Documents (defined below) (such LACMTA-approved Final Construction Documents, the "**Approved Construction Documents**"), and a "ready to issue" letter from the City of Los Angeles for any permits necessary for the Project in accordance with the Approved Construction Documents, as applicable;

(iii) Ground Lease Tenant and LACMTA shall have executed and delivered to Escrow the Ground Lease and any other required transaction documents, all as contemplated in the Option Agreement;

(iv) LACMTA shall have determined that the Project, Ground Lease Transaction, and other matters contemplated by this Term Sheet meet any applicable Federal, State, or bond funding restrictions/requirements/approvals;

(v) LACMTA shall have received from Ground Lease Tenant payment and performance bonds, and a completion guaranty guaranteeing and securing Completion of the Project (as defined below), each in a form satisfactory to LACMTA;

(vi) LACMTA shall have received assurances from Developer that Ground Lease Tenant is ready to commence work on the Project promptly following the Closing; and

(vii) LACMTA shall have reviewed and approved the anticipated Community Services that will provided at the Project upon Completion of the Project.

As used in this Term Sheet, the term "**Completion of the Project**" shall occur when Ground Lease Tenant receives a final certificate of occupancy from the City of Los Angeles permitting occupancy of the entire Project.

3.5 OPTION AGREEMENT DESIGN REVIEW:

During the Option Agreement Term and the Restoration Period, LACMTA will have the right to review and approve the design of the Project to the extent of any design elements that affect, directly or indirectly the following (collectively, the "**LACMTA Design Concerns**"):

(a) The LACMTA Operations-Related Concerns (defined below);

(b) The exterior of the Project, including materials, paint colors, entries, fenestration, signage, equipment and utility locations, and lighting;

(c) The public realm surrounding the Project, including public features such as outdoor seating, lighting, and street trees, and the pedestrian experience along Project frontages;

(d) The open spaces on the Premises, including landscaped and hardscaped elements, and other public features such as seating and other street furnishings, lighting, and street trees;

(e) The Project's public bicycle and vehicular elements and its public pedestrian elements and the relationship of such elements to building entries, transit service and the public realm and the quantity of private bicycle parking spaces for the Project, and the relationship of such private bicycle parking spaces to building entries;

(f) A change in the scope of the Project from that set forth in the Section 1.2; and

(g) Interior floor plans, including structural interior elements and interior finishes.

LACMTA's exercise of its rights hereunder for matters that are not related to LACMTA Operations-Related Concerns will be at LACMTA's reasonable discretion. LACMTA's exercise of its rights hereunder for matters that are related to LACMTA Operations-Related Concerns will be at LACMTA's sole and absolute discretion. LACMTA's design approval rights as set forth herein are, in part, intended to ensure that the Project meets LACMTA's Satisfactory Continuing Control Requirement (as defined in Section 4.14).

"**Final Construction Documents**" means any final plans and specifications approved by the City of Los Angeles for the execution of the Project and containing details as will be reasonably necessary to allow LACMTA to assess all impacts of such work in accordance with LACMTA's rights under the Option Agreement.

"**LACMTA Operations-Related Concerns**" means (a) the operations of LACMTA, including the experience of transit patrons and transit users, (b) LACMTA's exercise of its Retained Rights (defined below) and any area subject to the Retained Rights, (c) the Public Transit Facilities, the access to or from each of the same, and the maintenance, repair, modification, renovation and replacement of the same, (d) the lateral and subjacent support to the Public Transit Facilities and any area providing support necessary for LACMTA to exercise its Retained Rights, and (e) public, transit patron and LACMTA employee and contractor health and safety.

"**LACMTA Transit Equipment**" means all of the equipment, cable, conduit, fixtures, furnishings, and vehicles located or operating in, on, under, over, about, or adjacent to the LACMTA Property and used or installed by LACMTA for any transit purpose, including ticket vending machines, ticket validation and gating systems and other equipment serving a comparable function, map and

information cases and directional signs, lighting, security cameras, rail cars, vehicles, tracks, signaling devices, maintenance equipment, public address systems, fire protection equipment, communication antennas, and all other transit related or LACMTA related equipment and vehicles.

"**Public Transit Facilities**" means all transit-related or LACMTA-related improvements, structures, stations, equipment, fixtures, trains, subways, buses and furnishings now existing or hereafter located in, on, under, near, adjacent to, and/or passing through, the LACMTA Property, including, without limitation, any LACMTA Transit Equipment, water lines, sanitary sewer lines, storm sewer improvements, electrical lines, antennas, elevator, shafts, vents, portals, and exits.

3.6 OUTREACH: During the Option Agreement Term, Developer would prepare an outreach plan (the "**Outreach Plan**") for LACMTA's review and approval, and lead and conduct public outreach in accordance with the Outreach Plan. The Outreach Plan shall provide multiple modes of collecting feedback, such as attendance at other organization's events, pop-ups, on-line and in-person surveys and not fewer than two (2) community outreach events in order to solicit community input and feedback on service needs.

3.7 SCHEDULE OF PERFORMANCE: During the Option Agreement Term, Developer would provide to LACMTA, for LACMTA's review and approval, a schedule of performance for the Project, which will be maintained and updated regularly by Developer upon LACMTA's request.

3.8 TRANSFERS, ASSIGNMENT AND SUBLETTING: Except (a) for a one-time transfer by Developer to Ground Lease Tenant immediately prior to the execution of the Ground Lease and (b) as otherwise approved in writing by LACMTA in its sole and absolute discretion, Developer shall not transfer or assign its rights or obligations under the Option Agreement or any portion thereof.

4. KEY GROUND LEASE TERMS:

4.1 GROUND LEASE TENANT: The tenant under the Ground Lease will be the Ground Lease Tenant (defined in the preamble).

4.2 GROUND LEASE – GENERALLY: At Closing, LACMTA, as landlord, and Ground Lease Tenant, as tenant, will enter into the Ground Lease, which will provide for the

execution of the Project on the Premises by Ground Lease Tenant, at Ground Lease Tenant's sole cost and expense. The Ground Lease will contain terms and conditions that are substantially consistent with those set forth in this Term Sheet, subject to such modifications as may be directed by the LACMTA Board that are agreed to by Ground Lease Tenant.

4.3 REHABILITATION/ RESTORATION PERIOD:

The Project will be completed in accordance with the Approved Construction Documents. The Ground Lease will require commencement of the Project within thirty (30) days after the Commencement Date (defined below). The rehabilitation/restoration period for the Project ("**Restoration Period**") will commence on the Commencement Date and will terminate upon completion of rehabilitation/restoration of the Project in accordance with the Ground Lease

4.4 UNSUBORDINATED GROUND LEASE:

Neither LACMTA's interests (including Federal and State interests as a providers of funds for the Metro L Line (formerly the Metro Gold Line)) under the Ground Lease nor LACMTA's Satisfactory Continuing Control Requirement will be subordinated to any interest that Ground Lease Tenant or its lenders or investors will have in the Premises.

4.5 GROUND LEASE PREMISES:

The premises under the Ground Lease will be the Premises.

4.6 GROUND LEASE TERM:

The initial term of the Ground Lease (the **"Initial Ground Lease Term**") will commence on the date of the Closing, pursuant to the terms of the Option Agreement (such date being the "**Commencement Date"**) and will expire on the date occurring twenty (20) years after the Commencement Date (the "**Ground Lease Term**"). There shall also be three (3) five-year options to extend the Term at the sole and absolute discretion of LACMTA.

4.7 GROUND RENT:

Commencing on the Commencement Date of the Ground Lease, Ground Lease Tenant shall pay to LACMTA ground rent ("**Ground Rent**") that is the greater of (a) a capitalized rent payment ("**Capitalized Rent**") in an amount equal to the appraised value of the Premises less the estimated cost of the Project, as independently reviewed and verified by LACMTA, which Capitalized Rent shall be due upon execution of the Ground Lease, or (b) the amount of one hundred dollars ($100.00) per annum for the Ground Lease Term. Any appraisal of the Premises will be prepared using USPAP guidelines and

completed not earlier than six months prior to the anticipated Commencement Date of the Ground Lease. The Ground Rent will stay in effect for the Ground Lease Term. LACMTA will have the right to audit all program activities at the Project in order to confirm the Community Services operating therein. Any material changes to the Community Services with respect to a portion of the Premises that is greater than 20% of leasable square footage that have not been approved in advance by LACMTA will trigger a re-examination of Ground Rent and subject the Project to a new Ground Rent calculation.

4.8 NET LEASE: All rent to be paid by Ground Lease Tenant under the Ground Lease will be absolutely net to LACMTA, without offset, deduction or withholding. Ground Lease Tenant will be responsible for all capital costs and operating expenses attributable to the completion and operation and maintenance of the Project, including all taxes and assessments levied upon the Project or any interest in the Ground Lease. Ground Lease Tenant is aware that the Premises are also subject to possessory interest taxes, which will be paid by Ground Lease Tenant.

4.9 GROUND LEASE DESIGN REVIEW: Ground Lease Tenant shall not make any changes to the Approved Construction Documents or the Project that affect the LACMTA Design Concerns without the prior consent of LACMTA and any such changes will be requested in writing by Ground Lease Tenant. During the Restoration Period, LACMTA will have design review rights with respect to any such changes in the same manner as set forth in Section 3.5. LACMTA's exercise of its rights hereunder for changes that are not related to LACMTA Operations-Related Concerns will be at LACMTA's reasonable discretion. LACMTA's exercise of its rights hereunder for changes that are related to LACMTA Operations-Related Concerns will be at LACMTA's sole and absolute discretion. In addition to the foregoing, LACMTA shall retain similar design approval rights as set forth in Section 3.5 for any substantive Project changes or improvements sought by Ground Lease Tenant after the Project. LACMTA's design approval rights as set forth herein are, in part, intended to ensure that the Project meets LACMTA's Satisfactory Continuing Control Requirement.

4.10 MAINTENANCE AND OPERATIONS: During the Ground Lease Term, Ground Lease Tenant will be required to maintain and operate all portions of the Project and the Premises at its sole cost and expense pursuant to maintenance and operations standards set forth in the Ground Lease.

4.11 FINANCING AND ENCUMBRANCES:

Subject to LACMTA's reasonable approval, Ground Lease Tenant may encumber its leasehold estate with mortgages, deeds of trust or other financing instruments; provided, however, in no event shall LACMTA's fee title interest, the rent payable to LACMTA under the Ground Lease or LACMTA's Satisfactory Continuing Control Requirement, be subordinated or subject to Ground Lease Tenant's financing or other claims or liens. Such encumbrances and financings will be subject to LACMTA's reasonable approval, except with respect to certain "**Permitted Financing Events**" meeting specific criteria to be set forth in the Ground Lease, which shall not require LACMTA's approval. Subject to the satisfaction of specific criteria to be set forth in the Ground Lease and provided that such financing is from institutional lenders, governmental lenders or quasi-governmental lenders, Permitted Financing Events will include such financing as is required to convert from construction to permanent financing.

4.12 FEDERAL CIVIL RIGHTS COVENANTS:

Ground Lease Tenant shall comply with all applicable Federal nondiscrimination requirements, including applicable sections of Title 49 of the Code of Federal Regulations.

4.13 TRANSFERS, ASSIGNMENT, & SUBLETTING:

Except for limited permitted exceptions to be set forth in the Ground Lease, Ground Lease Tenant shall not transfer, assign or sublet its rights or obligations under the Ground Lease, or any beneficial interests in Ground Lease Tenant (each, a "**Transfer**"):

a. Prior to Completion of the Project; and

b. After Completion of the Project, except in accordance with reasonable transfer criteria (including, without limitation, criteria regarding the creditworthiness and experience of any proposed transferee and its affiliates, the extent to which any proposed occupancy resulting from the Transfer continues to meet community needs, and applicable Federal and State approvals and provisions regarding debarment and suspension) to be negotiated by LACMTA and Ground Lease Tenant and included in the Ground Lease.

Notwithstanding the foregoing, the Ground Lease will allow Ground Lease Tenant to make certain "**Permitted Transfers**" without LACMTA's consent; provided that (a) Ground Lease Tenant is not in breach or default under the Ground Lease, (b) Ground Lease Tenant provides written notice to LACMTA of Ground Lease Tenant's intent to effectuate a Permitted Transfer in

accordance with time frames set forth in the Ground Lease and with sufficient detail for LACMTA to reasonably determine that the intended Transfer is a Permitted Transfer, (c) Ground Lease Tenant provides written notice to LACMTA of the consummation of the Transfer in accordance with time frames set forth in the Ground Lease and with sufficient detail for LACMTA to reasonably determine that the Transfer was a Permitted Transfer, (d) the Permitted Transfer complies fully with all applicable provisions of the Ground Lease, (e) no Permitted Transfer shall release Ground Lease Tenant from any part of its obligations under the Ground Lease, except as expressly set forth in the Ground Lease, and (f) no such Permitted Transfer shall result in a Change of Control, except as expressly permitted in the Ground Lease.

Subject to the conditions set forth in the previous sentence, the term "**Permitted Transfers**" will include: (i) a transfer of the initial limited partnership interest in Ground Lease Tenant to an investor limited partner and the subsequent transfer of such investor's limited partnership interest in Ground Lease Tenant to another investor or an affiliate of Ground Lease Tenant (even if such transfer constitutes a Change of Control), (ii) the transfer of Ground Lease Tenant's interest to an affiliate of Ground Lease Tenant (which LACMTA and Ground Lease Tenant acknowledge could result in a Change of Control), and (iii) the replacement of Ground Lease Tenant's general partner for cause with an affiliate of the limited partner in accordance with the terms of Ground Lease Tenant's partnership agreement (which LACMTA and Ground Lease Tenant acknowledge will result in a Change of Control), provided that in each case such investor or affiliate meets certain transferee requirements set forth in the Ground Lease. "**Change of Control**" means (a) a change in the identity of the entity with the power to direct or cause the direction of the management and policies of Ground Lease Tenant, whether through the ownership of voting securities, by contract or otherwise, or (b) the transfer, directly or indirectly, of fifty percent (50%) or more of the beneficial ownership interest in Ground Lease Tenant.

4.14 RETAINED RIGHTS: LACMTA shall retain from the rights granted to Ground Lease Tenant under the Ground Lease certain rights as will be further described in detail in the Ground Lease, relating to the following: (1) the right to install, construct, inspect, operate, maintain repair, expand and replace Public Transit Facilities in, on, under, over, and adjacent to the Premises as LACMTA may deem necessary; (2) the right to install, use, repair, maintain, and replace along the perimeter of the Premises public streets, sidewalks and/or rights-of-way (including, without limitation, on the exterior of the Project's buildings) (a) lighting, security cameras, and related conduit,

cable, wiring and other appurtenances, (b) informational, directional and way-finding signs for the purpose of directing the public to, from and between LACMTA transit options and other public transit options in the area; provided, however, LACMTA shall not install any such signage, lighting, security cameras, conduit, cable, wiring or appurtenances on the Premises or the Project without Ground Lease Tenant's prior written approval, which shall not be unreasonably withheld, conditioned or delayed; (3) the right to enter upon and inspect the Premises, with reasonable notice to Ground Lease Tenant, and anytime during normal business hours for purposes of conducting normal and periodic inspections of the Premises and the Project and to confirm Ground Lease Tenant's compliance with the terms and conditions of the Ground Lease; and (4) all rights not explicitly granted to Ground Lease Tenant in the Ground Lease (the "**Retained Rights**"). The Retained Rights shall, among other things, ensure that the Premises remain available for the transit purposes originally authorized by the LACMTA's Federal and the State funding partners ("**LACMTA's Satisfactory Continuing Control Requirement**"). In exercising the Retained Rights, LACMTA shall use, good faith efforts to coordinate any construction, repair, maintenance or similar activities with Ground Lease Tenant so as to minimize the impact of such activities on each of Ground Lease Tenant's and Ground Lease Tenant's subtenants' usage of the Premises in accordance with the Ground Lease.

4.15 OTHER: Other customary and relevant provisions contained in other recent LACMTA ground leases will be included in the Ground Lease, including, without limitation, (a) LACMTA's standard transit proximity risk waiver, assumption of risk and indemnity language related to the Project's proximity to rail and other transit operations and infrastructure and (b) provisions relating to insurance and indemnity.

5. LACMTA COSTS

5.1 LACMTA COSTS: Developer and Ground Lease Tenant acknowledge and agree that LACMTA will incur certain actual costs (the "**LACMTA Costs**") related to (a) the Project and (b) negotiation of the terms and conditions of the transactions contemplated under the Option Agreement and the Ground Lease. The LACMTA Costs will include, without limitation, the actual cost of in-house staff time (including LACMTA overhead and administrative costs) and third party consultation fees (including, but not limited to, fees related to legal counsel, consultants, engineers, architects, and advisors) for financial analyses, design review (including reviewing plans and specifications for the Project and engineering and other reports

related to the Project), negotiations, appraisals, document preparation, services related to development, planning, engineering, construction safety, construction management, construction support, and construction logistics, oversight and inspection, and other reasonable services related to the Project and the transactions contemplated under the Option Agreement and Ground Lease, ***but shall exclude*** the cost of LACMTA Joint Development staff, and LACMTA's in-house and outside legal counsel with respect to negotiation and preparation of the Option Agreement, Ground Lease and related transaction documents.

5.2 OPTION FEE: On the Option Agreement Commencement Date, Developer shall pay LACMTA an amount of $25,000 (the "**Option Fee**") to apply to LACMTA Costs (whether accruing prior to or after the Option Agreement Commencement Date).

EXHIBIT A

LACMTA Property

The LACMTA Property consists of Site A and Site B, as follows:

Site A (1.24 acres):

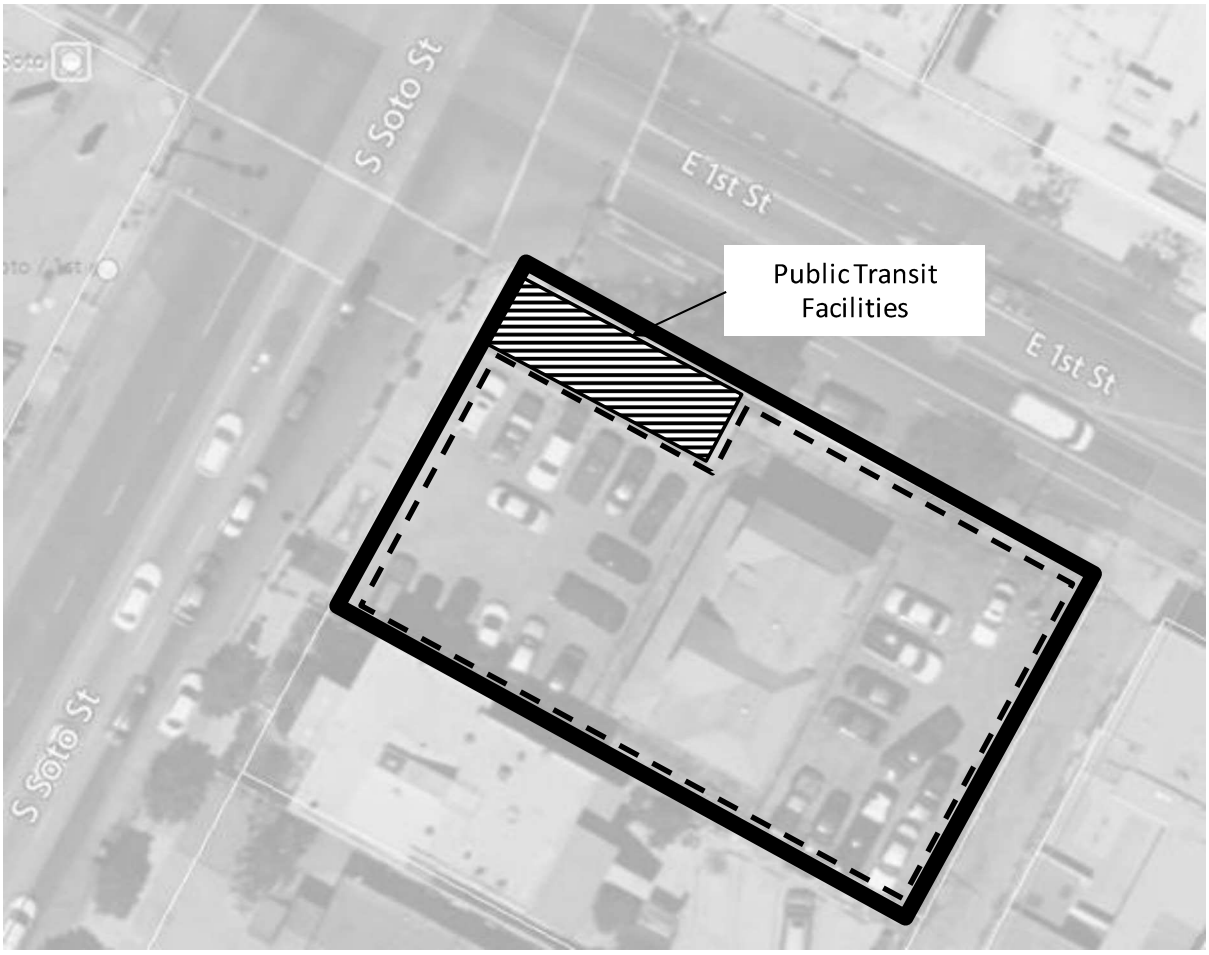
- Parcel 1 - 2310 East 1st Street, APN 5183-009-908, 0.16 acres, Zoned C2-1
- Parcel 2 - 2316 East 1st Street, APN 5183-009-905, 0.16 acres, Zoned C2-1
- Parcel 3 - 2322 East 1st Street, APN 5183-009-906, 0.16 acres, Zoned C2-1
- Parcel 4 - 2328 East 1st Street, APN 5183-009-909, 0.23 acres, Zoned C2-1
- Parcel 5 - 113 South Soto Street, APN 5183-009-910, 0.09 acres, Zoned C2-1
- Parcel 6 - 119 South Soto Street, APN 5183-009-904, 0.23 acres, Zoned RD1.5-1
- Parcel 7 - 121 South Soto Street, APN 5183-009-907, 0.22 acres, Zoned RD1.5-1

(Parcel 1 contains a traction power substation serving the Metro Gold Line. Parcels 2, 3 and 4 contain at-grade landscaping, plaza, subway and portal improvements and other subsurface subway station improvements. Parcel 5 and a portion of Parcel 6 contain at-grade landscaping and plaza improvements.)

Site B (0.29 acres):

- Parcel 8 - 2400 East 1st Street, APN 5180-003-900, 0.29 acres, Zoned C2-1, which contains at-grade and subsurface subway station improvements.

EXHIBIT B
Site B and Premises



Site B

Premises

Next stop: building communities.

Peabody Werden House Joint Development

Planning and Programming Committee
November 16, 2022
Legistar File 2022-0585

Metro

Recommendations

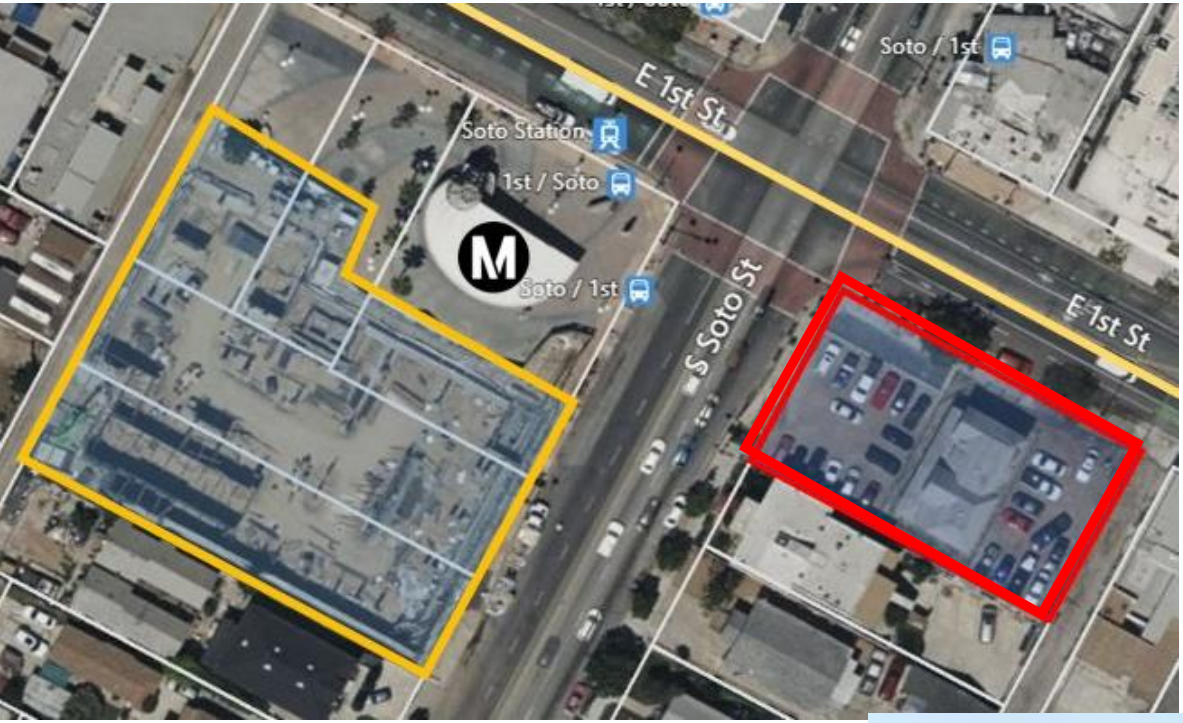
CONSIDER:

A. AUTHORIZE the CEO to execute an Option Agreement with East Los Angeles Community Corporation (Developer or ELACC) to grant an option to Developer for the ground lease of Metro owned property at 2400 E. 1st Street in Boyle Heights;

B. ADOPT findings that the Project is categorically exempt, and;

C. AUTHORIZE the CEO to file a Notice of Exemption

Site Overview



Site A: Metro property, site of Los Lirios Apartments

Site B: Project Site, holding Peabody Werden House

Metro Gold Line

1st/Soto L (Gold) Line Station

Metro

Peabody Werden Site Background/Status

- Metro entered into an ENA in 2016 with Developer BRIDGE/ELACC for the 1st/Soto Joint Development adjacent to the L line station.
- **Site A** was designated as mixed-use affordable housing site. In Dec. 2021 Metro entered into a ground lease with the Developer to construct the Los Lirios Apartments on Site A.
- **Site B**, the site of the Peabody Werden House (House), was designated for community serving uses, including restoration of the 1890's Victorian House.
- The ENA was amended in 2022 to allow continued planning for Site B with ELACC, including negotiation of terms and conditions under which a ground lease of Site B would be granted.
- ELACC and Metro developed a plan for renovation and programming of the House, and are seeking authority to enter into an Option Agreement by Dec. 31, 2022, to satisfy the statutory requirements under the CA Surplus Land Act

Next Steps

2022:	Execute the Option by December 31, 2022, to maintain compliance with the California Surplus Land Act.
2023:	Developer engages the community to discuss the full spectrum of potential services; identifies appropriate programming; continues planning, design and iterative outreach.
2024:	Developer secures programming partner and funding; execute ground lease; start construction.
On-going:	Stakeholder updates.

Los Angeles County
Metropolitan Transportation
Authority
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3rd Floor Board Room
Los Angeles, CA

File #: 2022-0647, **File Type:** Contract **Agenda Number:** 9.

**PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022**

SUBJECT: EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT (ESFVTC) SUPPLEMENTAL ANALYSIS OF PHASE 2 CORRIDOR FROM VAN NUYS BOULEVARD/SAN FERNANDO ROAD TO SYLMAR/SAN FERNANDO STATION

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING update on Phase 1 of the ESFVTC Shared ROW Study; and

B. AUTHORIZING the Chief Executive Officer to execute Modification No. 2 for Optional Phase 2 of Task Order No. PS80628-5433000 to Mott MacDonald for professional services for Supplemental Analysis on the East San Fernando Valley Transit Corridor (ESFVTC) from Sylmar/San Fernando to Van Nuys Boulevard (Shared ROW Study) in the amount of $1,463,005, increasing the task order value from $343,218 to $1,806,223, and extending the period of performance from December 30, 2022, to June 30, 2024.

ISSUE

This item provides an update on the ESFVTC Shared ROW Study and outlines the additional analysis and coordination that would be conducted in the next phase of the work, pending authorization by the Metro Board.

BACKGROUND

At the December 2020 meeting, the Metro Board certified the Final EIS/EIR for the East San Fernando Valley Transit Corridor Project, a 9.2-mile light rail project from the Metro G Line (Orange) Van Nuys Station at the south, to the Sylmar/San Fernando Metrolink Station to the north (Legistar File 2020-0024 <https://boardagendas.metro.net/board-report/2020-0024/>). The Board also approved an initial operating segment (IOS) as the 6.7-mile segment along Van Nuys Boulevard from the Metro G Line (Orange) Van Nuys Station to an interim terminus station at Van Nuys/San Fernando Road. To address the remaining 2.5-mile segment not included in the IOS, the Board also approved Motion 10.1 (Attachment A), instructing staff to prepare a plan to further evaluate the

remaining segment, which is within the Metro-owned Antelope Valley Line (AVL) corridor shared right-of-way (ROW), from Van Nuys/San Fernando Road to the Sylmar/San Fernando Metrolink Station. See Attachment B for maps of the 9.2-mile ESFVTC Final EIS/EIR alignment and of the ESFV Shared ROW Study area.

This analysis was requested in response to comments received from Southern California Regional Rail Authority (SCRRA or Metrolink) and the City of San Fernando on the ESFVTC Final EIS/EIR. Given the concurrent development of SCRRA's SCORE program and other related projects and services that would share the ROW in this corridor, comments received were primarily related to updating the project's definition to include a four-track scenario (two Light Rail tracks and two commuter rail/freight tracks) versus the three-track scenario assumed in the ESFVTC EIS/EIR (two Light Rail tracks and one commuter rail/freight track). The comments also requested that additional traffic, safety, and ROW analyses be conducted along the Shared ROW based on the four-track scenario.

At the February 2021 Metro Board meeting, staff presented a plan for completing the required studies, as requested in Motion 10.1. Staff procured this study through Metro's Countywide Planning bench and released the competitive Task Order Request for Proposals (RFP) in September 2021. The Metro Board awarded the task order for work to commence on Phase 1 at the March 2022 meeting.

This update includes an overview of the work conducted to date in the study, including coordination with Metrolink and City of San Fernando to address their comments and concerns with the proposed light rail project within the existing AVL corridor Shared ROW. It also outlines the analysis to be conducted during the next phase of work, pending authorization by the Board.

Upon completion of this study, staff will provide a recommendation based on analysis and evaluation to be conducted on three potential scenarios as follows:

- **Full-Build:**
  - Assume completion of SCRRA double track between Van Nuys Boulevard and Sylmar/San Fernando Metrolink Station (two commuter rail/freight tracks) within the 2.5-mile Shared ROW segment.
  - Build two additional LRT tracks for a total of four tracks in the 2.5-mile Shared ROW of the AVL corridor from Van Nuys Boulevard to Sylmar/San Fernando Metrolink Station.
- **ESFV Initial Operating Segment (IOS) With New Connection**:
  - Assume completion of SCRRA double track between Van Nuys Boulevard and Sylmar/San Fernando Metrolink Station (two commuter rail/freight tracks) within the 2.5-mile Shared ROW segment.
  - Create a new transfer connection between the ESFV Light Rail and Metrolink services at Van Nuys/San Fernando.
  - This concept would not include an extension of ESFV Light Rail beyond the Van Nuys/San Fernando Light Rail station.
- **FRA-Compliant Light Rail**:
  - Use of FRA Tier-III Compliant standards for Light Rail along the Shared ROW.

- This concept will be further developed as the study advances, in coordination with SCRRA.

DISCUSSION

The work conducted during the initial phase of this study was intended to set the groundwork for the more detailed analysis and conceptual design that would be conducted during Phase 2.

I. Work Conducted During the Initial Study Phase

Transportation Data Collection

To establish a baseline set of data for subsequent analyses included in this study, traffic data were collected for “Existing Conditions” and “Future with Proposed Project” scenarios in the vicinity of the six grade crossings along the Shared ROW. These data included:

- Peak Hour Turning Movement Counts
- Pedestrian and Bicycle Counts (AM and PM peak hour)
- Roadway Average Daily Traffic (ADT) Data

Existing data was normalized to account for changes to traffic patterns resulting from the Covid-19 pandemic, while the future year was confirmed as 2040 for consistency with the ESFVTC Environmental document. These data served as direct inputs for the grade crossing analyses conducted during this initial study phase and would be utilized to support the additional analyses that would be conducted during Phase 2 of this study, pending Board authorization.

Grade Crossing Analysis

A preliminary grade crossing analysis was conducted to understand whether grade separation would need to be considered with a four-track scenario (two Light Rail tracks and two commuter rail/freight tracks) along the Shared ROW. This analysis studied six railroad crossings within a 2.5-mile segment of the Shared ROW:

ESFV Shared ROW Study Crossings - Existing Conditions

Number	Street Crossing	Existing Conditions
1	Hubbard Avenue	• High vehicle volumes • Longest gate-down time (next to Sylmar/San Fernando Metrolink Station)
2	Maclay Avenue	• Adjacent to Downtown San Fernando and Civic Center • High pedestrian volume
3	Brand Boulevard	• Adjacent to City of San Fernando Police Department, Downtown San Fernando, and San Fernando Middle School • High pedestrian volumes
4	Jesse/Wolfskill Street	• Southeast terminus of Mission City Trail in ROW. San Fernando Road Bike Path continues outside of ROW. • Lowest vehicle and pedestrian volumes among the six grade crossings
5	Paxton Street	• High vehicle volumes • Adjacent to SR-118 freeway ramps • Adjacent to large trip generators (e.g., Costco)
6	Van Nuys Boulevard	• High vehicle and pedestrian volumes • Highest bicyclist volume among the six crossings • Terminus of ESFV LRT Project

To assess the need for grade separation, staff utilized Metro's Grade Crossing Safety Policy for Light Rail Transit. Additionally, as requested by Metrolink, staff applied the SCRRA Grade Crossing Evaluation Criteria. These policies define a stepwise method and a series of evaluation criteria to identify potential grade-separation(s) to ensure safety and to minimize impacts on the traffic operations of the grade crossings and nearby intersections.

- Metro's policy includes up to three steps, known as "Milestones". The first of these steps (Milestone 1) identifies conditions under which grade separations may be required. The application of the Milestone 1 analysis did not indicate a clear requirement, but that grade separation may need to be studied further based on additional considerations. Phase 2 of this study therefore will analyze each crossing in further detail in subsequent step(s) of the Milestone process.
- The Metrolink analysis begins with an Initial Factors Form, which sets a threshold of potential factors that might drive the need for grade separation. The application of this initial Metrolink step found that, due to the number of potential factors that might require a grade crossing, additional analysis is needed at all six crossings.

As this was the initial step for both Metro's and SCRRA's grade crossing analyses, more detailed engineering and safety analysis would need to be conducted during Phase 2 of this study to identify locations along the Shared ROW, if any, that merit consideration for grade separation.

Alignment Review

To understand ROW requirements and other implications of a four-track, at-grade configuration, staff

reviewed previous project designs along this segment, including ESFVTC 15%/30% design drawings and the Brighton to Roxford Double Track Project plans. The analysis considered potential ROW impacts and other modifications to previous design plans and preliminarily found the following:

- **ROW Implications - General**
  - Compared to the ROW impacts identified in the ESFVTC Final EIS/EIR, additional ROW impacts are preliminarily anticipated.
  - This additional ROW is required due to shifting the active train warning devices, increases to tangent lengths, and to meet horizontal clearance requirements associated with adding a fourth track in the Shared ROW.
- **Mission City Bike Trail** (from Jessie/Wolfskill St. to Hubbard Ave.)
  - The Mission City Bike Trail, which is within the Shared ROW, would need to be relocated outside of the ROW to accommodate the second commuter rail/freight track (i.e., the additional fourth track) and to avoid further ROW impacts.

Upon Board authorization, Phase 2 includes further study and design to refine these preliminary analyses and findings. Staff will continue coordinating with stakeholders, as described below, and with the East San Fernando Valley Light Rail Project team during Phase 2 of this study.

Stakeholder Coordination During Phase 1 and Phase 2 of this Study

During Phase 1 of this study, staff provided targeted updates to staff from cities, city council staff (City of San Fernando and City of Los Angeles districts 2, 6, and 7), and Metro Board staff. Metro staff held two technical meetings with City of San Fernando and Metrolink to share progress and incorporate input for the Phase 1 work.

Staff will continue technical coordination with SCRRA, City of San Fernando, and City of Los Angeles, as well as targeted updates for other area staff, during Phase 2 of this study. Staff will also continue to be responsive to requests for information and updates to local stakeholder groups. Upon completion of the study, additional engagement opportunities could be revisited at that time.

II. Phase 2 Analysis

To address requests for additional analysis, refined designs for ROW evaluation and to continue addressing City and SCRRA concerns, Phase 2 of this study will evaluate the feasibility of additional alternatives not considered in the environmental document. This includes evaluation of the following scenarios (as described previously in this report):

- **Full-Build:** two Light Rail tracks and two commuter rail/freight tracks
- **ESFV Initial Operating Segment (IOS) With New Connection**
- **FRA-Compliant Light Rail**

The following tasks are included in Phase 2 of this study, in response to comments from City of San Fernando and Metrolink on the ESFVTC Final EIS/EIR:

1. Alternatives Definition, building on alignment review conducted in Phase 1

2. Transportation Benefits/Systems Performance Analysis
3. Grade Crossing and Corridor Safety Study
4. Constraints Analysis
5. Right-of-way Assessment, Alignment Design and Refinement
6. Safety Assessment for Corridor Motorists, Bicyclists, and Pedestrians
7. Vehicle Counts and Traffic Circulation Plan
8. Alternatives Analysis and Structural Type Considerations
9. Conceptual Drawings and Cost Estimates

Phase 2 will include high-level cost estimates based on a conceptual (5%) design level for up to three scenarios along this 2.5-mile segment of the Shared ROW.

Any changes to the project definition for this segment, if different from what the Metro Board certified as part of the ESFVTC EIS/EIR, could require supplemental environmental review to previous environmental documents for the East San Fernando Valley Light Rail Project, AVL Capacity and Service Improvements Program, and Brighton to Roxford Double Track Project.

DETERMINATION OF SAFETY IMPACT

Authorization of the task order modification for the ESFV Supplemental Analysis from Sylmar/San Fernando to Van Nuys Boulevard will not impact the safety of Metro's customers or employees, as this study is in the planning process phase and no capital or operational impacts result from this Board action.

FINANCIAL IMPACT

Impact to Budget
The FY23 budget contains $1,555,904 in Cost Center 4370, Project 465521 for professional services of Phase 2. Since this is a multi-year task order, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years.

The source of funds for this action is State Transportation Improvement (STIP) funds. These funds are not eligible for bus and rail operations.

EQUITY SECTION

The study area communities of Pacoima, Sylmar, and City of San Fernando were identified as Equity Focus Communities (EFCs) in prior analyses, and equity assessments will be reevaluated as appropriate as the study evolves. Additionally, Metrolink's 2018 Origin-Destination Study (Metrolink, 2019) found that Antelope Valley Line riders overall have the lowest median income ($74,091) and automobile availability (71%) in the entire Metrolink system. This supports the understanding of study area communities as vulnerable/marginalized and transit-dependent. Furthermore, existing traffic and safety conditions along the Shared ROW present a potential burden to these communities, as highlighted by the City of San Fernando in their Final EIS/EIR comment letter.

This study will assess travel time, frequency, and connectivity between different modes, which could enhance transit access and mobility options for study area communities. The study is intended to identify existing harms to EFCs stemming from existing traffic and safety conditions along this Shared ROW and to assess how the study scenarios would affect these conditions in the future. The design and analysis of each scenario will be developed with specific

consideration to EFCs, vulnerable/marginalized communities, and transit riders. The study's final report will include an assessment of safety and mobility for each study scenario, with specific consideration to EFCs, vulnerable/marginalized communities, and transit riders along the Shared ROW. This assessment will be based on the design and analysis to be conducted during Phase 2 of this study. Furthermore, the study will recommend strategies to avoid and/or minimize potential harms and impacts towards these communities, while maximizing mobility benefits.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This study supports the following strategic plan goals identified in Vision 2028:

- Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.
- Goal 3: Enhance communities and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The Board could decide to not authorize this task order modification at this time. This is not recommended as it would delay completion of this Metro Board-directed study. Conducting this study is necessary to address SCRRA's and City of San Fernando's comments on the ESFVTC EIS/EIR and to determine a feasible path forward to address the mobility needs within this transportation corridor.

NEXT STEPS

Upon Board approval, staff will execute Modification No. 2 for Optional Phase 2 to Task Order No. PS80628-5433000 with Mott MacDonald to initiate the work.

Upon completion of this study, staff will provide a recommendation to the Metro Board based on analysis and evaluation to be conducted on the three potential scenarios within the Shared ROW.

Should findings and recommendations result in changes to the project definition from what the Board certified as part of the ESFVTC EIS/EIR, staff would provide recommendations on next steps for any required updates to the environmental documents for this effort and related Metro projects.

ATTACHMENTS

Attachment A - Metro Board Motion 10.1 (December 2020)
Attachment B - ESFV Maps
Attachment C - Procurement Summary
Attachment D - DEOD Summary
Attachment E - Contract Modification/Change Order Log

Prepared by: Ivan Gonzalez, Sr. Manager, Countywide Planning & Development, (213) 922-7506
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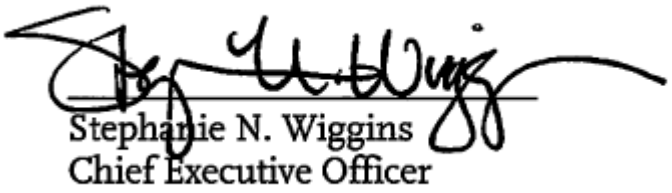
David Mieger, SEO, Countywide Planning & Development, (213) 922-4812
Laurie Lombardi, SEO, Countywide Planning & Development, (213) 418- 3251
Debra Avila, Deputy Chief Vendor/Contract Management Officer, (213) 418-3051

Reviewed by: James de la Loza, Chief Planning Officer, Countywide Planning & Development, (213) 922-2920



Stephanie N. Wiggins
Chief Executive Officer

Metro

Los Angeles County
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Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2020-0780, **File Type:** Motion / Motion Response **Agenda Number:** 10.1.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 18, 2020

Motion by:

DIRECTORS NAJARIAN AND KUEHL

Related to Item 10: East San Fernando Valley Light Rail Transit Final Environmental Impact Report

The East San Fernando Valley Light Rail project is a great project that will lead to greater connectivity in the entire region. It fits in with Metro's promise to deliver high quality transit options to those who depend on the system. We are eager to move forward with the project and take it from the planning stage into the construction stage.

However, we continue to have some concerns about the portion of track that runs through the City of San Fernando. The last Grade Crossing Safety Study was completed prior to the Metrolink double-tracking through San Fernando. Therefore, an updated traffic study is needed for this segment. These two studies must be completed to reassess what steps should be taken to mitigate the City's safety concerns before any further work outside of the light rail line is proposed that will impact the City of San Fernando.

SUBJECT: EAST SAN FERNANDO VALLEY LIGHT RAIL TRANSIT FINAL ENVIRONMENTAL IMPACT REPORT

RECOMMENDATION

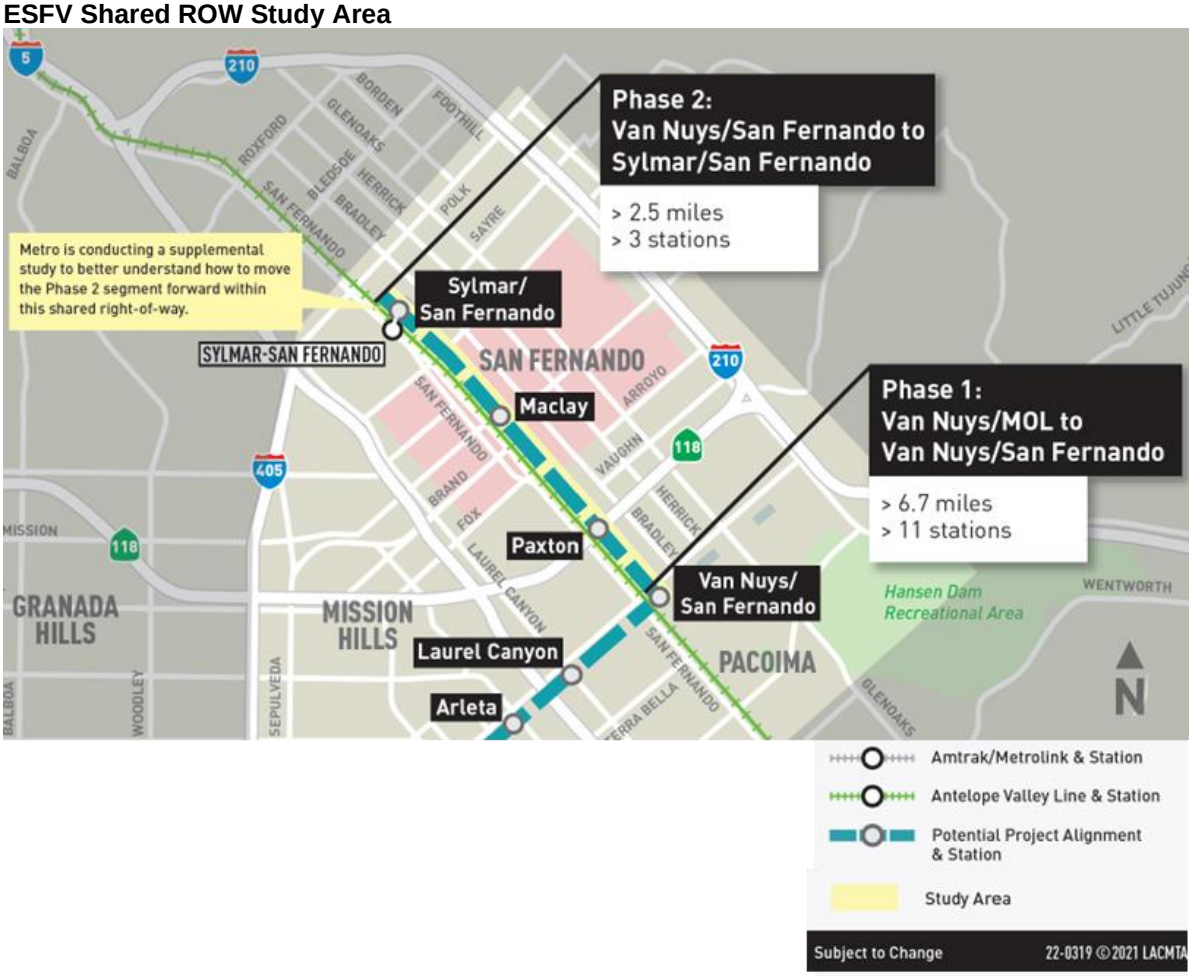
APPROVE Motion by Directors Najarian and Kuehl that the CEO direct staff to develop a plan to complete the necessary studies as expeditiously as possible. The plan should include an analysis of data and a path forward for all parties, including Metrolink, with mitigative options, which may or may not include grade separations, be brought back to the Planning and Programming Committee in February 2021.

ATTACHMENT B

ESFVTC – 9.2-mile Final EIS/EIR Alignment

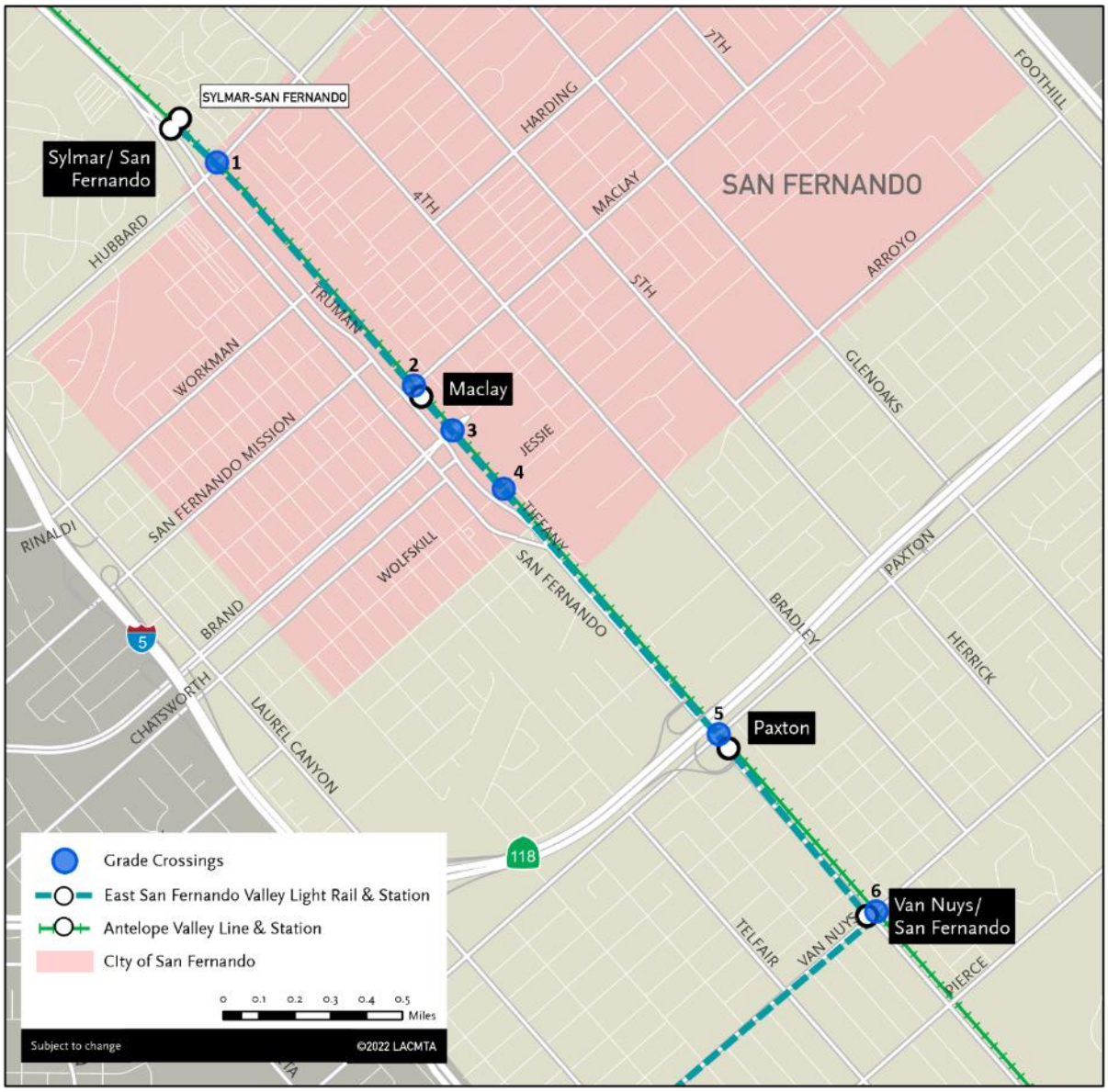
ATTACHMENT B

ESFV Shared ROW Study Area



ATTACHMENT B

ESFV Shared ROW Study Crossings



PROCUREMENT SUMMARY

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT (ESFVTC) SUPPLEMENTAL ANALYSIS OF PHASE 2 CORRIDOR FROM VAN NUYS BOULEVARD/SAN FERNANDO ROAD TO SYLMAR/SAN FERNANDO STATION/PS80628-5433000

1.	**Contract Number**: Task Order No. PS80628-5433000**,** under Contract No. PS54330021			
2.	**Contractor**: Mott MacDonald			
3.	**Mod. Work Description**: Optional Phase 2			
4.	**Contract Work Description**: Supplemental Analysis on the East San Fernando Valley Transit Corridor (ESFVTC) from Sylmar/San Fernando to Van Nuys Boulevard (Shared ROW Study).			
5.	**The following data is current as of**: 10/12/22			
6.	**Contract Completion Status**		**Financial Status**	
	Contract Awarded:	3/24/22	**Contract Award Amount:**	$343,218
	Notice to Proceed (NTP):	4/4/22	**Total of Modifications Approved:**	$0
	Original Complete Date:	9/5/22 (Phase 1)	**Pending Modifications (including this action):**	$1,463,005
	Current Est. Complete Date:	6/30/24 (Phase 2)	**Current Contract Value (with this action):**	$1,806,223
7.	**Contract Administrator**: Lily Lopez		**Telephone Number**: (213) 922-4639	
8.	**Project Manager**: Ivan Gonzalez		**Telephone Number**: (213) 922-7506	

A. Procurement Background

This Board Action is to approve Contract Modification No. 2 issued for the Optional Phase 2 of the ESFVTC.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the task order type is firm fixed price.

On March 24, 2022, the Board awarded firm fixed price Task Order No. PS80628-5433000 under Countywide Planning and Development Bench Contract No. PS54330021 to Mott MacDonald for professional services to complete the Supplemental Analysis on the ESFVTC from Sylmar/San Fernando to Van Nuys Boulevard.

One modification has been issued to date.

Refer to Attachment E – Contract Modification/Change Order Log.

B. Cost Analysis

The recommended price has been determined to be fair and reasonable based on pricing that was evaluated as part of the competitive Task Order award in March 2022. Pricing remains unchanged.

Mott MacDonald's negotiated amount increased from the proposal amount because the initial level of effort was not consistent with the work identified in the Task Order RFP. The discrepancy between the independent cost estimate (ICE) and negotiated price was due to Metro taking a conservative approach on the ICE and the contractor identifying efficiencies on certain tasks.

Proposal Amount	Metro ICE	Negotiated Amount
$1,276,861	$2,268,123	$1,463,005

DEOD SUMMARY

SUPPLEMENTAL ANALYSIS OF SYLMAR/SAN FERNANDO TO VAN NUYS BLVD., SHARED RAILROAD RIGHT-OF-WAY (PHASE 1 AND PHASE 2)/PS80628-5433000

A. Small Business Participation

Mott MacDonald (Mott) made a 23.04% Small Business Enterprise (SBE) commitment and a 3.01% Disabled Veterans Business Enterprise (DVBE) commitment on this task order. The project is 46% complete and the current SBE participation is 16.24% and the DVBE participation is 0.00%, representing shortfalls of 6.80% and 3.01%, respectively.

Mott has a shortfall mitigation plan on file. Mott explained that the SBE/DVBE shortfall is due to work planned for the SBE/DVBE partners starting later in the schedule. Specifically, FPL and Associates, an SBE, is not anticipated to begin until Phase 2 of the project. Mott contents, per their plan, that Phase 2 will be completed within 18 months after Notice to Proceed and anticipates no shortfalls by the end of the project. Mott further reported that when the payments for their September 2022 invoices are reported, the SBE/DVBE participation levels will increase. In particular, the September invoice includes 100% of the work for The LeBaugh Group, Inc., which signifies the 3.01% DVBE commitment. In the current modification, Mott is proposing 23.25% SBE and 3.53% DVBE participation.

The Diversity & Economic Opportunity Department (DEOD) will continue to monitor contract progress to ensure that Mott meets and/or exceeds its commitments.

Small Business Commitment	**SBE 23.04% DVBE 3.01%**	**Small Business Participation**	**SBE 16.24% DVBE 0.00%**

	SBE Subcontractors	**% Committed**	**Current Participation[1]**
1.	FPL and Associates	2.86%	0.00%
2.	Zephyr UAS, Inc.	20.18%	16.24%
	Total	**23.04%**	**16.24%**

	DVBE Subcontractors	**% Committed**	**Current Participation[1]**
1.	The LeBaugh Group, Inc.	3.01%	0.00%
	Total	**3.01%**	**0.00%**

[1]Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

A review of the current service contract indicates that the Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) was not applicable at the time of award. Therefore, the LW/SCWRP is not applicable to this modification.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction related value in excess of $2.5 million.

ATTACHMENT E

CONTRACT MODIFICATION/CHANGE ORDER LOG

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT (ESFVTC)
SUPPLEMENTAL ANALYSIS OF PHASE 2 CORRIDOR
FROM VAN NUYS BOULEVARD/SAN FERNANDO ROAD TO
SYLMAR/SAN FERNANDO STATION/PS80628-5433000

Mod. No.	Description	Status (approved or pending)	Date	$ Amount
1	Extended period of performance to December 30, 2022 for Phase 1	Approved	8/26/22	$0
2	Optional Phase 2 and extension of period of performance through June 30, 2024	**Pending**	**Pending**	$1,463,005
	Modification Total:			**$1,463,005**
	Original Task Order:	**Approved**	**3/24/22**	**$343,218**
	Total:			**$1,806,223**

East San Fernando Valley Shared Right-of-Way (ROW) Study

Planning and Programming Committee

November 16, 2022

Metro

Recommendation

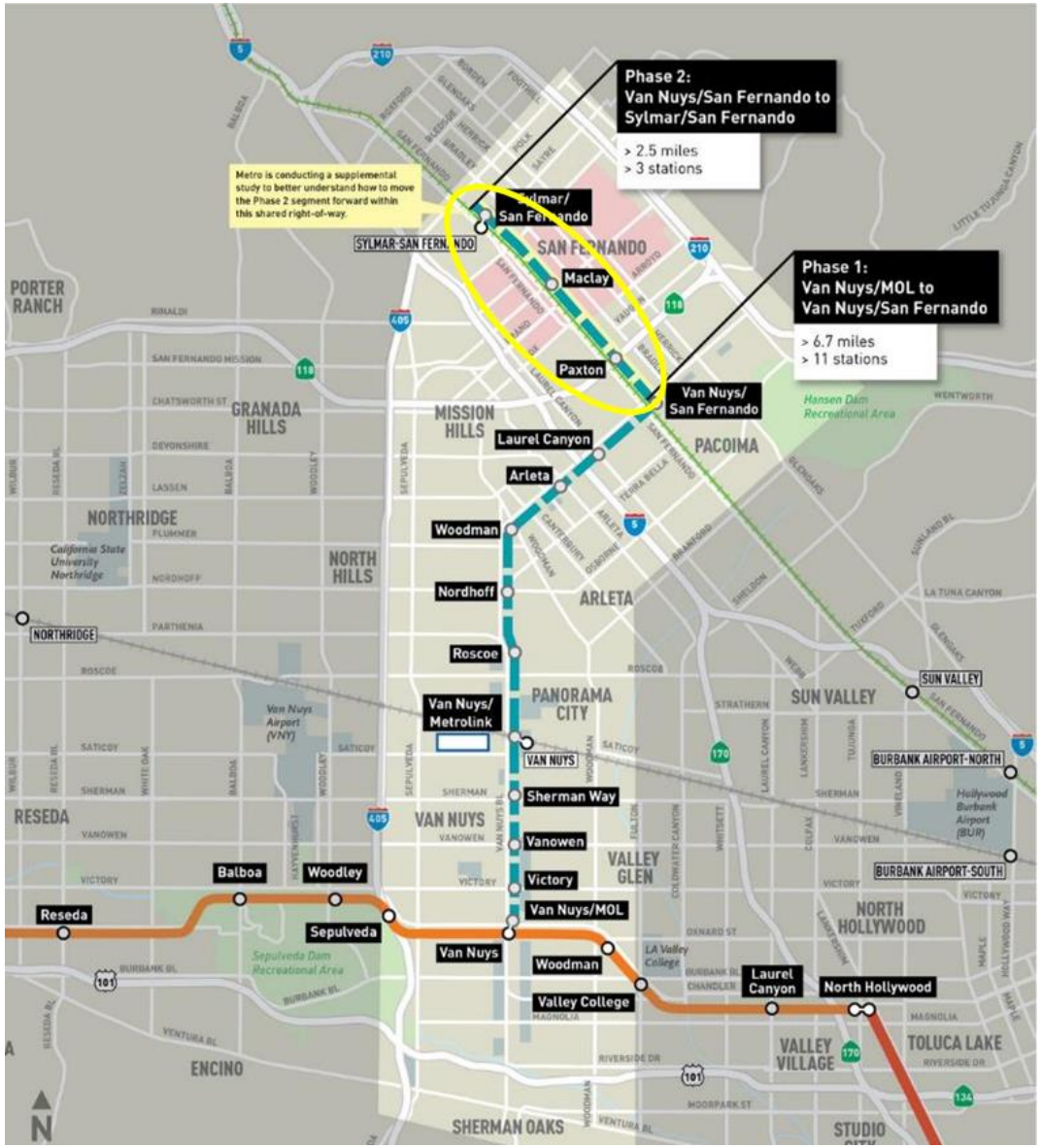
CONSIDER:

A. RECEIVING AND FILING update on Phase 1 of the ESFVTC Shared ROW Study; and

B. AUTHORIZING the Chief Executive Officer to execute Modification No. 2 for Optional Phase 2 of Task Order No. PS80628-5433000 to Mott MacDonald for professional services for Supplemental Analysis on the East San Fernando Valley Transit Corridor (ESFVTC) from Sylmar/San Fernando to Van Nuys Boulevard (Shared ROW Study) in the amount of $1,463,005, increasing the task order value from $343,218 to $1,806,223, and extending the period of performance from December 30, 2022, to June 30, 2024.

Study Background

- **December 2020** - Metro Board certified the East San Fernando Valley Light Rail Transit Final EIS/EIR (FEIS/FEIR) and directed further study of the 2.5-mile segment along the Antelope Valley Line shared ROW (Motion 10.1).
- **March 2022 –** Board awarded contract and authorized start of Phase 1 of this Shared ROW Study.
- **April – September 2022:** Study team conducted data collection and preliminary analysis; staff prepared to report back to the Board with initial findings.



Phase 1 Study Update: Initial Grade Crossing Analysis and Alignment Review - Further Analysis Needed

Analysis Conducted in Phase 1 of the Study:

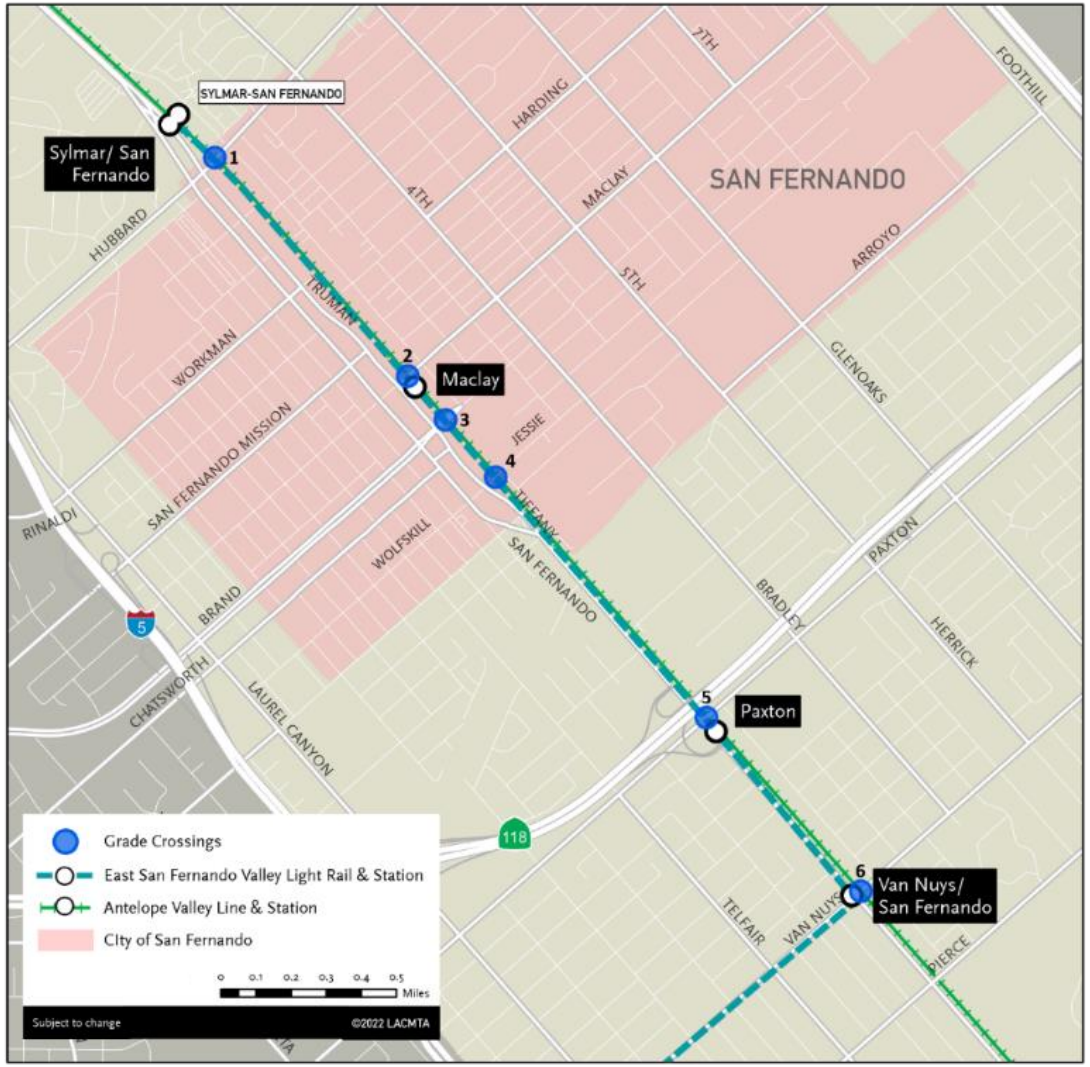
Grade Crossing Studies

> Applying Metro and SCRRA criteria, initial findings indicate that additional traffic and safety analysis is needed to identify if potential grade separation(s) may be required.

Alignment/ROW Studies

> Addition of a fourth track may result in additional ROW impacts (compared to three tracks assumed in the ESFVTC FEIS/FEIR).

> Mission City Bike Trail (City of San Fernando): Would need to be relocated outside of the ROW to accommodate the additional fourth track and to avoid further ROW impacts.



Stakeholder Engagement During Phase 1 of the Study

Technical Coordination

> **Metrolink**

- April 2022: Discussed study overview and coordination approach.
- August 2022: Presented preliminary grade crossing analysis results to staff.

> **City of San Fernando**

- May 2022: Met with staff to seek inputs on data collection and grade crossing analysis methodologies.
- September 2022: Presented the grade crossing analysis (Milestone 1) and design plan of four tracks to staff.

Briefings

> City of San Fernando staff, San Fernando City Council, City of Los Angeles Council Districts 2, 6, and 7 staff, City of Los Angeles/LADOT staff, SFVCOG, and Metro Board staff

Next Steps: Phase 2 Study (up to 18 months)

> **Phase 2 to study three scenarios:**
  - **Full-Build:** two Light Rail tracks and two commuter rail/freight tracks
  - **ESFV Initial Operating Segment (IOS) With New Connection**
  - **FRA-Compliant Light Rail**

> **Phase 2 study scope includes:**
  - Additional Grade Crossing Analysis: Metro Milestones 2 and 3 (if needed) and Metrolink Step 2 analysis
    - Includes traffic and safety analysis
  - Conceptual design (up to 5%) and right-of-way analysis

> Upon study completion, staff to provide a recommendation based on analysis and evaluation of the three study scenarios.

> If needed, staff would provide recommendations on next steps for required updates to the environmental documents for this effort and related Metro projects.

Los Angeles County
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One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0659, **File Type:** Program **Agenda Number:** 10.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: FEDERAL TRANSIT ADMINISTRATION SECTION 5310 GRANT PROGRAM FUNDING OPPORTUNITY FOR THE FISCAL YEAR 2023

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING the Fiscal Year (FY) 2023 Solicitation for Proposals for up to $13,845,982 in funds under the Federal Transit Administration (FTA) Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program; and

B. ALLOCATING $14,748,981 in FTA Section 5310 funds for Access Services as identified by the FY 2023 funding allocation process for traditional capital projects to support complementary paratransit service required by the Americans with Disabilities Act (ADA) of 1990.

ISSUE

The FTA apportions Section 5310 funding to Urbanized Areas (UZAs) in Los Angeles County. Consistent with Metro's role as the Designated Recipient of these funds, staff is requesting Board approval to issue a competitive funding opportunity and to allocate available FTA Section 5310 program funding for the recommended purposes above.

BACKGROUND

Metro is the designated recipient of FTA Section 5310 Program funds in the urbanized areas of Los Angeles County (Los Angeles-Long Beach-Anaheim (UZA 60020), Santa Clarita (UZA 61770), and Lancaster-Palmdale (UZA 63570), and is responsible for planning, programming, distribution, management, and sub-recipient oversight. Consistent with Metro's Section 5310 Program Management Plan, Metro periodically allocates FTA Section 5310 funds available to Los Angeles County sub-recipient partners via competitive funding opportunities, Access Services via formula allocation, and for Metro's administrative expenses.

DISCUSSION

Program Description

The FTA Section 5310 Program provides operating and capital assistance for public transportation projects that i) are planned, designed, and carried out to meet the special needs of seniors (65+) and individuals with disabilities (any age) when public transportation is insufficient, inappropriate, or unavailable; ii) exceed the requirements of the Americans with Disabilities Act (ADA) of 1990; iii) improve access to fixed route service and decrease reliance on complementary paratransit; and/or iv) provide alternatives to public transportation projects for seniors (65+) and individuals with disabilities (any age). The goals of the FTA Section 5310 Program are to improve mobility for seniors (65+) and individuals with disabilities (any age) by removing barriers to transportation services and expanding the transportation mobility options available.

Private nonprofit (501(c)(3)) organizations or state and local governmental authorities are eligible applicants for funding. Metro must certify that projects receiving FTA Section 5310 funds are included in a locally developed Coordinated Public Transit-Human Services Transportation Plan (Coordinated Plan). Metro adopted the 2021-2024 Coordinated Plan for Los Angeles County in June 2021.

Funding Availability

The recommended FTA Section 5310 funding allocations are derived from $30,099,962 in FTA funds apportioned to Los Angeles County UZAs as authorized under the Fixing America's Surface Transportation (FAST) Act and reauthorized under the Bipartisan Infrastructure Law as follows: $28,450,764 for the Los Angeles County portion of Los Angeles-Long Beach-Anaheim UZA, $691,112 for the Santa Clarita UZA, and $958,085 for the Lancaster-Palmdale UZA. These funds include three years of FTA Section 5310 apportionments (FFY 2021, 2022, and projected for FFY 2023). Before staff returns to the Board for approval of funding recommendations (anticipated in Spring 2023), the final FFY 2023 apportionment amount should be available by the FTA, and the allocated amounts per UZA would be adjusted accordingly.

Allocation Process

As the designated recipient, Metro is responsible for allocating FTA Section 5310 funds and must certify that the distribution of funds to its sub-recipients is fair and equitable. Metro convened a Section 5310 Working Group consisting of representatives from the Bus Operations Subcommittee (BOS), the Local Transit Systems Subcommittee (LTSS), the Accessibility Advisory Committee (AAC), and the Aging and Disability Transportation Network (ADTN) to review and discuss the allocation of funds.

The Working Group's recommended allocation (Attachment A) is a hybrid approach for FTA Section 5310 Program funds that allocates 49% of total funds to Access Services for Traditional Capital Projects, 46% of total funds to the competitive project selection process, and the remaining 5% to Metro to administer grant funds, conduct federally required oversight and provide technical assistance to grant sub-recipients. This allocation is the same as the allocation used for the FY 2019 Solicitation for Proposals. The 49% allocation to Access Services is based on the agency's regional reach, needs, and historical shares of FTA Section 5310 funds previously awarded. The 5%

allocation to Metro is sufficient to support program administration activities and is half of the maximum allowed by the FTA.

Application Package

The FY 2023 Solicitation for Proposals Application Package (Attachment B) is based largely on the application used for the FY 2019 Solicitation for Proposals for Section 5310 funds. Metro solicited and received input from the Section 5310 Working Group on the Application Package content and format, including the evaluation criteria and the selection process. Overall, the Working Group recommended that the format generally remain the same as the application used in FY 2019 with a few updates, mainly to increase funding award limits and revise project evaluation criteria incrementally.

Evaluation Criteria

Metro staff will screen all proposals for completeness and eligibility by the deadline. All accepted applications will be reviewed and scored to ensure the proposed projects are derived from and consistent with the 2021-2024 Coordinated Plan for Los Angeles County and that they are responsive to the eligibility and evaluation criteria for the program. The final score for each proposal, and corresponding ranking, will be calculated based on the average of all scores from the panel members tasked to evaluate and score the application. Applications will be ranked based on the final scores. With the available funding, Metro will recommend awards to proposals that receive a final score of 70 or above (out of a maximum of 100).

DETERMINATION OF SAFETY IMPACT

Approval of the recommended actions will have no adverse safety impacts on Metro's employees or patrons.

FINANCIAL IMPACT

There is no budget impact in FY 2023. Since these are multi-year projects, the cost center manager for 0441 (Planning - Subsidies to Others) and the Chief Planning Officer will be responsible for budgeting in future years.

Impact to Budget
All of the recommended actions will be fully funded through the Federal Section 5310 Program. No other Metro funds will be required to manage, administer, and oversee the program. These FTA Section 5310 Program funds are not eligible for Metro bus and rail operating and capital expenditures.

EQUITY PLATFORM

The FTA Section 5310 Program focuses on a target population of older adults and persons with disabilities who face unique challenges in accessing mobility options in Los Angeles County. Per Metro's 2019 Aging and Disability Transportation Report, one out of eight Angelenos are over 65

years old, and by 2030, this ratio may reach one out of every five. Coupled with the number of persons with disabilities that have almost doubled in the past five years, the percentage of Los Angeles County's target population in need of mobility services will outpace the growth in work age adults (age 25-64) by 2040. By 2050, the ratio of seniors to working age adults will reach one senior for every two working adults. Based on the large share of these target population groups, services for seniors and persons with disabilities are a significant need throughout Los Angeles County.

Metro engaged these groups and other stakeholders to assess disparities as part of the Coordinated Plan update in 2020. After considering data on disparities related to income, disability, and age, and with input from the public, Metro approved a Coordinated Plan (2021-2024) that focuses on the mobility needs of the target population, seniors and persons with disabilities, as a demographic priority. Metro carries this consideration through the current solicitation. Consistent with the goals of the FTA Section 5310 Grant Program, Metro will evaluate and prioritize project proposals based on demonstrated funding needs related to transportation mobility needs, as well as project feasibility and readiness. Metro will present award recommendations to the Technical Advisory Committee and assess how the awards would benefit Equity Focus Communities (EFCs). Per Metro's competitive grants process, 5% of the total funding amount is set aside for TAC to allocate at their discretion, which should include equity considerations, evaluation results, and appeals. Metro will also use project location information in future Coordinated Plan updates to define more precisely areas or populations of higher need within the target population and future funding opportunities to ensure sufficient coverage of Equity Focus Communities (EFCs).

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports the following goals of the Vision 2028 Strategic Plan:

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling; and

Goal 3: Enhance communities and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The Board could not approve all or some of the recommended actions. Staff does not recommend this alternative because without Board approval, Metro cannot fulfill its responsibilities as the Designated Recipient of FTA Section 5310 Program funds. Metro could also risk losing about $7.75 million in FTA Section 5310 Program funds that will lapse if not obligated through the FTA by September 30, 2023.

NEXT STEPS

With Board approval, staff will administer the activities necessary to allocate funds to Access Services and Metro's FY 2023 FTA Section 5310 Solicitation for Proposals. The application package will be released on December 5, 2022, and project applications will be due on February 27, 2023. Staff expects to return to the Board for approval of funding recommendations in Spring 2023, as shown in the schedule in Attachment B.

ATTACHMENTS

Attachment A - FY 2023 Section 5310 Funding Allocation Process
Attachment B - FY 2023 Section 5310 Solicitation for Proposals Application Package

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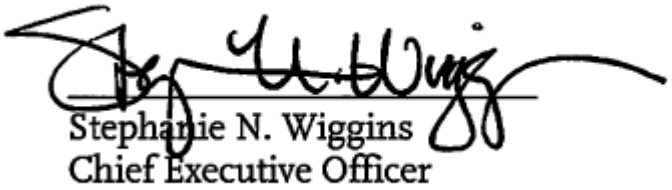

Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A

FY 2023 SECTION 5310
FUNDING ALLOCATION PROCESS

Recommended by the Section 5310 Working Group and adopted by its representative committees and subcommittees: the Accessible Advisory Committee (AAC), the Bus Operations Subcommittee (BOS), the Local Transit Systems Subcommittee (LTSS) and the Aging and Disability Transportation Network, the allocation process as summarized below will apply to Section 5310 program funds.

Metro will allocate funds apportioned to the urbanized areas of Los Angeles-Long Beach-Anaheim, Lancaster-Palmdale, and Santa Clarita that includes three federal fiscal year apportionments (2021, 2022, and projected for 2023). Before staff returns to the Board for approval of funding recommendations in June 2023, the final FY 2023 apportionment amount will be made available by the FTA, and the allocated amounts per UZA will be adjusted accordingly.

- Metro will receive 5% of the total apportionment for administration and program support, estimated to be **$1,504,998.**

- Access Services will receive 49% of the total apportionment for projects eligible for the Traditional Capital funding category only, estimated to be **$14,748,981.**

- 46% of the total apportionment will be allocated through the competitive FY 2023 Solicitation for Proposals, eligible for Traditional Capital, and Other Capital & Operating projects, estimated to be **$13,845,982**.

- Up to 5% of Solicitation funding will be set-aside for appeals at the Metro Technical Advisory Committee (TAC). Unused set-aside balances will be re-allocated to projects underfunded (if any) within that UZA.

- The total maximum award per subrecipient is $1,200,000.

If at the conclusion of the programming cycle there is a remaining balance in Section 5310 funds, appropriate steps to further program the funds will be pursued and reported to the Board.

The following table presents the funding allocations consistent with the allocation process.

ATTACHMENT A

FY 2023 Section 5310 Funding Allocation Table

SECTION 5310 APPORTIONMENTS - FEDERAL FY 2021, 2022, and 2023				
Urbanized Area	FFY21 Apportionment **Actuals**	FFY22 Apportionment **Actuals**	FFY23 Apportionment **Projected**[1]	**Total Apportionment**
Los Angeles UZA	7,317,753	10,513,936	10,619,075	$28,450,764
Lancaster-Palmdale UZA	247,902	353,325	356,858	$958,085
Santa Clarita UZA	180,771	253,901	256,440	$691,112
TOTAL	**$7,746,426**	**$11,121,162**	**$11,232,374**	**$30,099,962**

FY 2023 Section 5310 Funding Allocation				
Urbanized Area	Total Apportionments FFY 2021 - FFY 2023	Access Services	Program Administration	**Available for FY 2023 Solicitation**
Los Angeles UZA	28,450,764	13,940,875	1,422,538	13,087,352
Lancaster-Palmdale UZA	958,085	469,462	47,904	440,719
Santa Clarita UZA	691,112	338,645	34,556	317,912
TOTAL	**$30,099,962**	**$14,748,981**	**1,504,998**	**$13,845,982**
Percent Share	100%	49%	5%	46%

[1] FY 2023 apportionments are projections based on funding authorized in the Bipartisan Infrastructure Law. Before staff returns to the Board for approval of funding recommendations in June 2023, the final FY 2023 apportionment amount will be made available by the FTA, and the allocated amounts per UZA will be adjusted accordingly.

The Los Angeles County Metropolitan Transportation Authority (Metro)

Funding Opportunity: Federal Transit Administration (FTA) Section 5310 Program

ENHANCED MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES

FY 2023 Solicitation for Proposals and Application Package

Application Deadline: 5:00 pm on Monday, February 27, 2023

Metro

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PROGRAM INTRODUCTION

The Los Angeles County Metropolitan Transportation Authority (Metro) is soliciting proposals from eligible applicants for its fiscal year (FY) 2023 FTA Section 5310 Program for eligible projects that best achieve program goals and meet program requirements as described in Part I through Part III of this Solicitation for Proposals. The solicitation is a competitive selection process that will result in the award of available federal funds after an evaluation and ranking of proposals and the approval of funding awards by the Metro Board of Directors.

The FTA Section 5310 funds made available for the FY2023 Solicitation for Proposals include FTA funds apportioned for FFY 2021, 2022 and 2023 as authorized under the Fixing America's Surface Transportation (FAST) Act and reauthorized under the Bipartisan Infrastructure Law.

In the state of California, the Governor designates a public entity to be the Designated Recipient of federal transportation formula funds. Metro is the Designated Recipient of Federal Section 5310 funds apportioned for the areas in Los Angeles County that are within the urbanized areas of Los Angeles-Long Beach-Anaheim (UZA 60020), Santa Clarita (UZA 61770), and Lancaster-Palmdale (UZA 63570).As the Designated Recipient, Metro is responsible for:

1. Conducting this competitive solicitation.
2. Evaluating and ranking project proposals and recommending a program of projects to the Metro Board of Directors for funding.
3. Preparing and submitting grant applications to the FTA on behalf of all subrecipients approved by the Metro Board of Directors to receive a funding award.
4. Executing Funding Agreements with agencies awarded as "pass-through grants."

Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310)

The Section 5310 Program provides operating and capital assistance for public transportation projects that i) are planned, designed and carried out to meet the special needs of seniors (65+) and individuals with disabilities (any age) when public transportation is insufficient, inappropriate, or unavailable; ii) exceed the requirements of the Americans with Disabilities Act (ADA) of 1990; iii) improve access to fixed route service and decrease reliance on complementary paratransit, and/or iv) provide alternatives to public transportation projects for seniors (65+) and individuals with disabilities (any age). The goals of the Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities ("Section 5310") Program are to improve mobility for seniors (65+) and individuals with disabilities (any age) by removing barriers to transportation services and expanding the transportation mobility options available.

Federal Transit Law Definitions

Senior: As amended under MAP-21, and reestablished by the Infrastructure Investment and Jobs Act (Bipartisan Infrastructure Law), the term "Senior" means an individual who is 65 years of age or older.

Individual with Disability: The term "disability" with respect to an individual has the same meaning as in section 3(1) of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102). An individual (any age) with a physical or mental impairment that substantially limits one or more of their major life activities, those who have a record of such an impairment, or are regarded as having such an impairment.

The Coordinated Plan for Los Angeles County

Federal transit law requires that projects funded under the Section 5310 Program derive from a locally developed, coordinated public transit-human services transportation plan. The 2021-2024 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") was formally adopted by the Metro Board of Directors in June 2021.

The Coordinated Plan was developed through a comprehensive and inclusive stakeholder engagement process that included participation by seniors, individuals with disabilities, low-income individuals, veterans, representatives of public, private, and nonprofit transportation and human service providers, and other members of the public. The Coordinated Plan does the following:

1. Assesses transportation services provided for target population groups.
2. Considers and evaluates current and future target population transportation needs.
3. Develops goals and strategies to address gaps in existing transportation services.
4. Prioritizes projects and programs that will improve mobility for target population groups.
5. Allows Metro to fulfill its responsibilities as the Designated Recipient for Section 5310 funds in LA County.

Project proposal applications submitted in response to this Solicitation for Proposals must be consistent with goals and strategies included in the Coordinated Plan to address the mobility needs and service gaps for seniors and/or individuals with disabilities, within LA County. Each strategy is clearly illustrated by referencing several eligible projects and activities. These examples are intended to be illustrative, not exhaustive – applicants are encouraged to develop innovative solutions to achieve Coordinated Plan goals.

The Coordinated Plan can be accessed at: https://www.metro.net/cp

SCHEDULE (subject to change)

After a detailed evaluation and ranking by a panel, Metro staff, in consultation with the Metro's Technical Advisory Committee (TAC), will recommend to the Metro Board a program of projects for funding. The schedule is as follows:

Notice of Funding Availability: Release Solicitation and Application	December 5, 2022
Convene Potential Applicant Webinar	December 15, 2022
5310 Application Due	February 27, 2023
Application Review and Evaluation Period	February 28 - April 3, 2023
Applicant Preliminary Notification of Funding Recommendations & Debriefing	April 6, 2023
TAC Appeals Hearing	May 5, 2023
Board Action: Approve the Funding Award Recommendations	June 22, 2023
Convene Subrecipient Orientation Webinar for Successful Applicants	August 2023
FTA Grant Approval/Distribute Funding Agreements	August/September 2023

I. FUNDS AVAILABILITY

As the Designated Recipient and consistent with FTA guidelines, Metro will allocate FTA Section 5310 funds to eligible applicants as subrecipients for eligible traditional capital, other capital, and operating transportation projects following a competitive process. Up to $13,845,982 of Section 5310 Program funds apportioned and allocated to Los Angeles County for the Los Angeles-Long Beach-Anaheim Urbanized Area (UZA), as well as the Santa Clarita UZA and the Lancaster-Palmdale UZA are available, for all funding categories, as shown below:

Urbanized Area (UZA)	Available Funds
Los Angeles-Long Beach-Anaheim	$13,087,352
Lancaster-Palmdale	440,719
Santa Clarita	317,912
Totals	*$13,845,982

** FFY 2023 apportionments are projections based on funding authorized under the Bipartisan Infrastructure Law. Actual funds available for obligation will be adjusted after they are appropriated.*

** Up to 5% of competitive solicitation allocation will be set-aside for appeals. Unused set-aside balances will be re-allocated to projects underfunded (if any) within that UZA.*

II. ELIGIBLE APPLICANTS/SUBRECIPIENTS

Traditional Capital Projects

Eligible applicants of Section 5310 Program funds for Traditional Capital Projects are limited to:

1. Private nonprofit (501(c)(3)) organizations; or

2. State or local governmental authorities that:

    a. Certify that there are no nonprofit organizations readily available in the area to provide the service; or

    b. Are approved by the state to coordinate services for seniors and/or individuals with disabilities in a particular area.

Private nonprofit organizations must complete and sign the status inquiry and certification form and provide verification of their incorporation number and current legal, along with a letter from the Internal Revenue Service (IRS) confirming the organization's current 501(c)(3) status. More information on these requirements is in the "Part IV-Certifications" section on page 27 of this solicitation.

Most state or local governmental authorities eligible to apply for Section 5310 funds are required to certify that there are no nonprofit organizations readily available in the area to provide the service and must complete and sign the "Local Government Authority Certification" form located in the Part IV-Certifications section of the application. **A public hearing is required** as part of the application process and should be completed between the release date of the FY 2023 Solicitation of Proposals and the due date of the application. However, those state or local governmental authorities eligible to apply for Section 5310 funds as "coordinators of services for seniors and individuals with disabilities" are not required to complete and sign the "Local Government Authority Certification."

A local governmental authority includes: a political subdivision of a state (such as a city or county); a state authority or an authority of a political subdivision of a state; and, a public corporation, board, or commission established under the laws of a state. Local governmental authorities, including cities or the county, will be required to **attach an authorizing resolution as an appendix** to the application, designating a person to sign the application on its behalf. This does not need to be a new resolution. This can be an already existing resolution showing that the signee is an authorized signatory for grant applications.

A coordinator of services for seniors and individuals with disabilities are those designated by the state to coordinate human service activities in a particular area. Examples of such eligible authorities are a county agency on aging or a public transit provider which the state has identified as the lead agency to coordinate transportation services funded by multiple federal or state human service programs.

Other Capital and Operating Projects

Eligible applicants of Section 5310 Program funds for Other Capital and Operating projects are limited to:

1. Private nonprofit (501(c)(3)) organizations;

2. State or local governmental authorities; or

3. Operators of public transportation, including private operators of public transportation services, who receive a Section 5310 grant indirectly through a recipient. Private taxi companies that provide shared-ride taxi service to the general public on a regular basis are considered operators of public transportation.

"Shared-ride" means two or more passengers in the same vehicle who are otherwise not traveling together. Taxi companies that provide only exclusive-ride service are not eligible subrecipients; however, they may participate in the Section 5310 program as contractors. If the local regulation permits the driver to determine whether or not a trip may be shared, the service is not shared-ride. Similarly, if the regulation requires consent of the first passenger to hire a taxi be obtained before the taxi may take on additional riders, the service is not shared-ride.

III. ELIGIBLE PROJECTS

Section 5310 Program funds are available for Traditional Capital, and Other Capital and Operating expenses, to support projects that are planned, designed, and carried out to meet the specific needs of seniors (65+) and individuals with disabilities (any age), although they may be used by the general public. It is not sufficient that seniors (65+) and individuals with disabilities (any age) are included (or assumed to be included) among the people who will benefit from the project. Projects that are open to the public are encouraged as a means of avoiding unnecessary segregation of services.

Capital project costs for the purchase of assets under Traditional Capital and/or Other Capital funding categories are fully eligible if the assets meet the specific needs of seniors and individuals with disabilities. Operating project costs for services under the Operating funding category are fully eligible if they meet the specific needs of seniors (65+) and individuals with disabilities (any age). However, if an operating project includes senior riders 64 and under, the project is still eligible, but only the operating expenses for services provided to seniors (65+) and individuals with disabilities (any age) are eligible for funding. Operating costs incurred for seniors 64 and under are not eligible for funding.

The following sections provide further information on project eligibility for funding under each funding category.

Traditional Capital Projects

Examples of eligible Traditional Capital projects shown below are intended to be illustrative, not exhaustive. Applicants are encouraged to develop innovative solutions to achieve program objectives and may discuss proposed projects with Metro staff to confirm eligibility. Administrative expenses for Traditional Capital Projects are **not eligible**.

1. Rolling stock and related activities for Section 5310 Program funded vehicles

    a. Acquisition of expansion or replacement accessible buses or vans, and related procurement, testing, inspection, and acceptance costs
    b. Vehicle rehabilitation or overhaul
    c. Preventive maintenance
    d. Radios and communication equipment
    e. Vehicle wheelchair lifts, ramps, and securement devices

2. Passenger facilities related to Section 5310 Program funded vehicles

    a. Purchase and installation of benches, shelters, and other passenger amenities

3. Support facilities and equipment for Section 5310 Program funded vehicles

    a. Extended warranties that do not exceed the industry standard
    b. Computer hardware and software

c. Transit-related Intelligent Transportation Systems (ITS)
d. Dispatch systems
e. Fare collection systems
f. Sneeze guards and safety shields

4. Lease of equipment when lease is more cost effective than purchase.

5. Acquisition of transportation services under a contract, lease, or other arrangement. Capital and operating costs associated with contracted service are eligible capital expenses. Funds may be requested for contracted services for more than one year.

6. Support for mobility management and coordination programs among public transportation providers and other human service agencies providing transportation. Mobility management is an eligible capital cost. Mobility management techniques may enhance transportation access for populations beyond those served by one agency or organization within a community. For example, a nonprofit agency could receive Section 5310 funding to support the administrative costs of sharing services it provides to its own clientele with other seniors and/or individuals with disabilities and coordinate usage of vehicles with other nonprofits, but not the operating costs of service.

   Mobility management is intended to build coordination among existing public transportation providers and other transportation service providers with the result of expanding the availability of service. Mobility management activities may include:

   a. The promotion, enhancement, and facilitation of access to transportation services, including the integration and coordination of services for individuals with disabilities, seniors, and low-income individuals;

   b. Support for short-term management activities to plan and implement coordinated services;

   c. The support of state and local coordination policy bodies and councils;

   d. The operation of transportation brokerages to coordinate providers, funding agencies, and passengers;

   e. The provision of coordination services, including employer-oriented transportation management organizations and human service organizations' customer-oriented travel navigator systems and neighborhood travel coordination activities such as coordinating individualized travel training and trip planning activities for customers;

   f. The development and operation of one-stop transportation traveler call centers to coordinate transportation information on all travel modes and to manage eligibility requirements and arrangements for customers among supporting programs; and

g. The planning for and acquisition of intelligent transportation technologies to help plan and operate coordinated systems, including geographic information systems (GIS) mapping, global positioning system technology, coordinated vehicle scheduling, dispatching and monitoring technologies, as well as technologies to track costs and billing in a coordinated system, and single smart customer payment systems. Acquisition of technology is also eligible as a standalone capital expense.

7. Capital activities (e.g., acquisition of rolling stock and related activities, acquisition of services, etc.) to support ADA-complementary paratransit service.

Other Capital Projects

Examples of eligible Other Capital projects shown below are intended to be illustrative, not exhaustive. Applicants are encouraged to develop innovative solutions to achieve program objectives and may discuss proposed projects with Metro staff to confirm eligibility. Administrative expenses for Other Capital Projects are **not eligible**.

Eligible Other Capital projects should fall into the following categories:

- Public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable;

- Public transportation projects that exceed the requirements of ADA;

- Public transportation projects that improve access to fixed route service and decrease reliance by individuals with disabilities on ADA complementary paratransit service; or

- Alternatives to public transportation that assist seniors and individuals with disabilities with transportation.

1. Projects that Exceed ADA Requirements:

a. Acquisition of vehicles and equipment designed to accommodate mobility aids that exceed the dimensions and weight ratings established for wheelchairs under ADA regulations (i.e., larger than 30″ × 48″ and/or weighing more than 600 pounds), such as: the acquisition of lifts with a larger capacity; modifications to lifts with a 600-pound design load; and, the acquisition of heavier duty vehicles for demand-response and/or paratransit service in order to accommodate lifts with a heavier design load; and

b. Installation of additional securement locations in public buses beyond what is required by the ADA;

2. Projects that Improve Accessibility to the Fixed-Route System:

   a. Improvements to transit and intermodal stations not designated as key stations. Limited to accessibility improvements at existing transportation facilities that are not designated as "key stations" under federal law and that are not required by federal law as part of an alteration or renovation to an existing station, so long as the project is clearly intended to remove barriers to individuals with disabilities that would otherwise have remained. These improvements may include:

      i. Building an accessible path to a bus stop that is currently inaccessible, including curb cuts, sidewalks, accessible pedestrian signals, or other accessible features;

      ii. Adding an elevator or ramps, detectable warnings, or other accessibility improvements to a non-key station that are not otherwise required by the ADA;

      iii. Improving signage or way finding technology; and

      iv. Implementation of other technology improvements that enhance accessibility for people with disabilities, including Intelligent Transportation Systems (ITS).

3. Alternatives that Assist Seniors and Individuals with Disabilities with Transportation

   a. Purchase and operate accessible vehicles for use in taxi, ride-sharing, and/or vanpool programs provided that the vehicle, at a minimum: meets the federal requirements for lifts, ramps, and securement systems; and permits a passenger whose wheelchair can be accommodated, pursuant to federal law, to remain in his/her personal mobility device inside the vehicle.

Operating Projects

Examples of eligible Operating projects shown below are intended to be illustrative, not exhaustive. Applicants are encouraged to develop innovative solutions to achieve program objectives and discuss proposed projects with Metro staff to confirm eligibility. Operating assistance for ADA complementary paratransit service is not an eligible expense.

Administrative expenses necessary to support project activities **are eligible** up to a maximum of five (5) percent of the total project cost. Costs include administration, planning, and technical assistance for projects.

Eligible Operating projects should fall into the following categories:

- Public transportation projects that exceed the requirements of ADA;

- Public transportation projects that improve access to fixed route service and decrease reliance by individuals with disabilities on ADA complementary paratransit service;
- Alternatives to public transportation that assist seniors and individuals with disabilities with transportation; or
- Public transportation projects that provide safety support services for seniors and individuals with disabilities.

1. Projects that Exceed ADA Requirements:

   a. Expansion of paratransit service parameters beyond the three-fourths mile required by the ADA.

   b. Expansion of current hours of operation for ADA paratransit services that are beyond those provided on the fixed-route service.

   c. The incremental cost of providing same day service for critical and non-critical need trips.

   d. The incremental cost (if any) of making door-to-door or door-through-door service available to all eligible ADA paratransit riders.

   e. Enhancement of the level of service by providing escorts or assisting riders to or through the door of their destination.

   f. Accessible “feeder service” providing access to commuter rail, commuter bus, intercity rail, and intercity bus stations for which complementary paratransit service is not required by the ADA.

2. Projects that Improve Accessibility to the Fixed-Route System

   a. Travel training programs for individual users on awareness, knowledge, safety, and skills of public and alternative transportation options available in their communities, including travel instruction and travel training services. This includes in-person and/or online instruction, and creation of online videos and/or tutorials.

3. Alternatives that Assist Seniors and Individuals with Disabilities with Transportation

   a. Supporting the administration and expenses related to voucher programs for transportation services. Vouchers can be used as an administrative mechanism for payment of alternative transportation services offered by Human Service providers to supplement available public transportation. Vouchers can be used by seniors (65+) and individuals with disabilities (any age) to purchase rides, as

well as for mileage reimbursement as part of a volunteer driver program, a taxi trip, or trips provided by a Human Service agency. Transit passes or vouchers for use on existing fixed-route or required ADA complementary paratransit service are **not eligible**. Vouchers are an operational expense and are reimbursed by Metro based on predetermined rates or contractual arrangements.

b. Supporting volunteer driver and aide programs. Volunteer driver programs are eligible and include support for costs associated with the administration, management of driver recruitment, training, safety, background checks, scheduling, coordination with passengers, other related support functions, mileage reimbursement, and insurance associated with volunteer driver programs. The costs of enhancements to increase the capacity of volunteer driver programs are also eligible.

c. Supporting subsidized vanpool, carshare and rideshare programs for difficult-to-serve trips that cannot be served by available transportation options.

4. Projects that Provide Safety Support Services for Seniors and Individuals with Disabilities

a. Establishing safety protocols and standards for vehicles, facilities and/or staff interactions.

b. Establishing information outreach and communication programs to inform seniors and individuals with disabilities about safety measures and processes.

c. The cost of purchasing safety equipment, supplies and services. This includes items that are disposable and generally have a useful life of less than one year, such as:

i. Cleaning and/or disinfectant equipment and supplies
ii. Masks and other PPE supplies
iii. Contracting services for cleaning/disinfecting paratransit vehicles

IV. FEDERAL SHARE, TRANSPORTAITON DEVELOPMENT CREDITS & LOCAL MATCHING REQUIREMENTS

The federal share of eligible Section 5310 **traditional and other capital costs** shall be up to 80 percent of the net cost of the activity. The federal share of the eligible **operating costs** may not exceed 50 percent of the net operating costs of the activity. The net cost of an activity (capital or operating) is the part of the project that cannot reasonably be financed from operating revenues (i.e., operating cost - farebox revenue collected = net cost).

Subrecipients may use up to a maximum of five (5) percent of the total operating project costs to support operating project activities including administration, planning, and technical

assistance, which may be funded at 100 percent federal share. Program administrative costs for traditional and other capital projects are **not eligible**.

The federal share may exceed 80 percent where the capital project is in compliance with the ADA and/or the Clean Air Act (CAA), as follows:

1. Rolling Stock (vehicles): The federal share is 85 percent for the acquisition of vehicles for purposes of complying with or maintaining compliance with ADA or the CAA. A revenue vehicle that complies with federal requirements to accommodate mobility aids that exceed the dimensions and weight ratings established for wheelchairs under the ADA regulations (i.e., larger than 30″ × 48″ and/or weighing more than 600 pounds) may also be funded at 85 percent federal share.

2. Vehicle-Related Equipment and Facilities: The federal share is 90 percent for project costs for acquiring vehicle-related equipment or facilities (including clean fuel or alternative fuel vehicle-related equipment or facilities) for purposes of complying or maintaining compliance with the CAA or required by the ADA. FTA considers vehicle-related equipment to be equipment on and attached to the vehicle.

Transportation Development Credits (TDC) are not money and they do not add funds to the project budget. They are similar to waivers or permission slips allowing federal funds to be used at a higher reimbursement rate. Metro will request TDC valued at up to ten (10) percent of eligible Section 5310 capital project costs and up to twenty-five (25) percent of eligible operating project costs on behalf of eligible applicants. Use of TDC's requires FTA approval. If approved, below is the federal share and local match requirement per funding category.

Summary: Section 5310 Federal Share w/TDC and Local Matching Requirements

Funding Category	Max Federal Share Eligible with TDC	Local Match Share Required (min)
Capital (Traditional & Other)	90%	10%
Capital: ADA/CAA Rolling Stock	95%	5%
Capital: ADA/CAA Equipment & Facilities	100%	0%
Operating	75%	25%

The local share of eligible Section 5310 capital costs shall not be less than 10 percent of the net cost of the activity (not including projects related to ADA/CAA compliance). The local share for eligible operating costs shall not be less than 25 percent of the net operating costs. All sources of local match must be identified and described in the grant application.

The local share may be sourced from a variety of sources including:

- an undistributed cash surplus;
- a replacement or depreciation cash fund or reserve; and
- a service agreement with a State or local service agency or private social service organization, or new capital.

Some examples of these potential sources of local match include:

- Cash
  - State or local appropriations
  - Private donations
  - Dedicated tax revenues
  - Revenue from service contracts
  - Net income generated from advertising and concessions.
  - Other non-USDOT federal funds

- In-Kind
  - Donated facility space or supplies specifically to operate the program
  - Labor (including volunteer time) contributed to the project
  - Other expenses (e.g., website hosting, marketing costs, travel, and mileage)
  - In-Kind must:
    - be included in the net project costs in the budget
    - represent costs that would otherwise be eligible under the project
    - not be included as a contribution for any other federally assisted project

- Income from contracted transportation services may be used either to reduce the net project cost (treated as revenue) or to provide local match for operating expenses. In either case, the cost of providing the contract service is included in the total project cost. No FTA program funds can be used as a source of local match for other FTA programs, even when used to contract for service. All sources and amounts of local match must be identified in the application.

- Federal programs that are eligible to be expended for transportation other than programs funded by the United States Department of Transportation (USDOT), or from USDOT's Federal Lands Highway Program.

Some examples of types of programs that are potential sources of local match include: employment, training, aging, medical, community services, and rehabilitation services. Specific program information for other types of federal funding is available at the Coordinating Council on Access and Mobility https://www.transit.dot.gov/ccam/about.

V. PERFORMANCE MEASURES

FTA requires tracking and reporting of quantitative and qualitative information for Section 5310 funded projects. FTA has set minimum indicators for Traditional Capital Projects and for Other Capital and Operating projects funded by the Section 5310 Program to capture relevant outputs, service levels and outcomes. Performance measures **must** be identified in Part II of the grant application. Include any additional performance measure that you deem necessary to support your project. Metro has adopted these minimum performance measures, as applicable.

a. Gaps in Service Filled - The actual or estimated number of seniors (65+) and individuals with disabilities afforded mobility annually as a result of the project (how many people will the project provide service to).

b. Ridership - The actual or estimated number of rides measured by one-way passenger trips provided annually for seniors (65+) and individuals with disabilities as a result of the project.

c. Service Improvements - Increases or enhancements related to geographic coverage, service quality, and/or service times that impact availability of transportation services for seniors (65+) and individuals with disabilities as a result of the project.

d. Physical Improvements - Additions or changes to physical infrastructure (e.g., transportation facilities, sidewalks, etc.), technology, and vehicles that impact availability of transportation services for seniors (65+) and individuals with disabilities as a result of the project

VI. APPLICATION INSTRUCTIONS

Review these application instructions, guidelines, and evaluation criteria carefully to ensure a complete and competitive application that sufficiently address each of the required and applicable components. Your attendance at the webinar for potential applicants, to be organized by Metro, is highly encouraged.

Each agency/organization is allowed to submit one or more application(s), under any funding category. Separate applications **must** be submitted for each proposed project, and/or funding category. Categories cannot be combined in one application, even if the request is for one project (i.e., if proposed project is for the purchase of a vehicle and operating costs for that vehicle, one application must be submitted requesting capital funds to purchase the vehicle, and a separate application must be submitted requesting operating funds to operate the vehicle). All applications and subject projects will be evaluated and scored separately. Total applicant funding request may not exceed **$1,200,000**.

Application packages with incomplete and/or missing information (e.g., status inquiry, certifications, not signed by a duly authorized representative) may render the proposal nonresponsive and may not be evaluated. Use the application checklist to ensure completeness.

Applications will be evaluated and scored and must receive a minimum score of 70 out of 100 to be considered for funding. Funding requests may be partially funded, and we may request a reduction in a scope of work and associated budget.

The complete signed application with all required attachments must be **combined into one single PDF.** The PDF or a link to view/download the PDF must be emailed to Section5310@metro.net **by 5:00 pm on Monday, February 27, 2023.**

Applications as submitted are to be complete and final. Modifications, amendments, or supplements to the application will not be accepted after the deadline.

The application is provided in fillable PDF form. All questions must be concisely answered in the space provided. **No additional pages** can be included to answer the questions. Only required attachments can be included as appendices to the application. An electronic version of the application consisting of four parts can be accessed at https://www.metro.net/about/fta5310.

Selection of Proposals for Funding Award Recommendations:

Applications will be evaluated and ranked based on the final score provided by the evaluation team. Funds will be allocated according to the ranking of projects to the maximum amount made available for the FY 2023 Solicitation for Proposals. Award recommendations will be limited to proposals that receive a final score of 70 or above (out of a maximum of 100) and subject to funds availability. Ultimately, the Metro Board of Directors will approve the funding award recommendations that will be included in grant applications submitted to the FTA.

Public Record Disclaimer:

Application materials and attachments submitted to Metro in response to its FY 2023 Solicitation for Proposals for the Section 5310 Funding Program are not considered confidential. Application contents and attachments received by Metro are considered public records. Applicants should not include confidential information such as client names, addresses, specific medical diagnoses, and other personal information.

System for Award Management (SAM):

The FTA requires Metro to ensure that none of its subrecipients are suspended, debarred, ineligible or voluntarily excluded from participation in federally assisted transactions or procurements. In the spirit of this requirement, Metro has established procedures to perform Federal suspension and debarment checks associated with each subrecipient award via the

online System for Award Management (SAM) at https://sam.gov. Applicants that are currently not registered in the SAM may register at no charge. Note that it can take up to 15 business days after you register before your registration is active in Sam.gov. All applicants must be registered in the SAM system and must have an “Active” status. No entity may receive a Section 5310 sub-award absent of a SAM check and clearance. It is important that you make your entity profile “public” to allow SAM verifications to be completed.

New SAM Registration Quick Start Guide

NOTE: If you’re already in the SAM system, verify that your status is active and has not expired. It is important that your entity profile remains “public” to allow SAM verifications to be completed. If you need assistance on renewing or updating your existing SAM entity registration, review the instructions on fsd.gov: How to renew or update an entity

Responsibility of Grant Subrecipient:

When an agency other than the applicant identified in the application is proposed to operate vehicles or other equipment for which Section 5310 Program funds are requested, control and responsibility for the operation of the vehicles or other equipment must remain with the grant subrecipient throughout the life of the asset (until asset is disposed of or sold according to FTA guidelines).

In this case, the subrecipient remains the registered owner of the vehicle or equipment and remains fully responsible for program compliance, including, but not limited to, operation oversight, reporting, insurance, maintenance, and monitoring. Metro shall be listed as an additional insured and the lien holder on all approved vehicles funded by the Section 5310 Program. Metro shall remain the lien holder until the per unit fair market value of the capital asset is less than $5,000. Non-compliance with program requirements may result in the relinquishment of vehicles and/or equipment to Metro.

APPLICATION GUIDELINES & EVALUATION CRITERIA

Metro staff will screen all proposals received by the deadline for completeness and eligibility for evaluation consideration. Application packages with incomplete and/or missing information (e.g., status inquiry, certifications, not signed by a duly authorized representative) may render the proposal non-responsive and may not be evaluated. Utilize the application checklist to ensure completeness. Applications as emailed are to be complete and final. Applications, amendments, or supplements to the application will not be accepted after the deadline. Review these application instructions, guidelines, and evaluation criteria carefully to ensure a complete and competitive application that sufficiently address each of the required and applicable components as detailed in the FY 2023 Section 5310 Solicitation for Proposals.

All accepted proposal applications will be reviewed and scored to ensure the proposed projects are derived from and consistent with the 2021-2024 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County and that they are responsive to the eligibility criteria for the program, as well as to the evaluation criteria. The final score for each proposal, and corresponding ranking, will be calculated based on the average of all scores from the panel members tasked to evaluate and score the application.

Applications will be ranked based on the final scores. Award recommendations will be limited to proposals that receive a final score of 70 or above (out of a maximum of 100). From the list of projects with a final score of 70, funds will be allocated from the highest-ranking project down to the lowest, to the maximum amount made available for the FY 2023 Solicitation for Proposals. Note that some projects that score a 70 or above may be partially funded or not recommended for funding. In some cases, a reduction in a scope of work and associated budget may be requested by Metro.

Project sponsors of projects with a final score of 70 or above that are partially funded or not recommended for funding will have an opportunity to appeal the decision at Metro's Technical Advisory Committee (TAC). Only information contained in the submitted application may be presented to TAC during the appeal. Detailed instructions on the appeal process will be transmitted when project award recommendations are made. Ultimately, the Metro Board of Directors will approve the funding award recommendations that will be included in grant applications to be submitted to the FTA.

The following sections Part I-Part IV of the FY 2023 Solicitation for Proposals outlines in detail the application content required and the maximum score possible for each scoring segment of the application.

PART I - GENERAL INFORMATION

Project Goal

In this section of the application, indicate how the proposed project addresses gaps and barriers identified in the 2021-2024 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County found at: https://www.metro.net/cp

Description of Applicant Agency/Organization

Briefly describe your agency or organization using the space provided including:

1. Transportation related programs and services currently managed and provided including target populations served, areas served, days/hours of service, and where applicable total fleet size (identifying the number of vehicles that are federally funded).

2. The number of individuals who currently receive transportation assistance provided by your agency or organization, including a specific breakdown by age (65 years of age or older and those under 65 years old) by disability (those who use a wheelchair or other mobility device and those who do not need a mobility device), and by income.

3. **Attach a map or brochure** as an appendix to your application, showing the existing service area of your agency or organization, as well as any proposed expansion requested to be funded (if applicable). The map needs to identify service area boundaries and include an applicable list of zip codes.

PART II - PROJECT NARRATIVE & EVALUATION CRITERIA

Part II consists of six sections (A-F). Metro will evaluate each application solely on the information provided in these sections. The weight of each section is indicated, and cumulatively total **100 possible points**.

Section A: Scope of Work, Need, Objectives, Coordination and Outreach (Up to 35 points)

To receive the maximum number of points, provide a detailed and clear description of the project proposed, including need and objectives. Also, discuss coordination and outreach efforts. Address the following evaluation criteria as applicable to the proposed project:

1. Describe the transportation services currently provided (if any), the existing transportation service fleet (if any), and the target populations currently served including elderly persons, individuals with disabilities, welfare recipients, and/or eligible low-income individuals. Specify if your agency or organization operates the service or contracts for the services. If the service is contracted, specify whether the current contract is federally compliant. Explain how the award will allow your agency/organization to implement, continue, and/or enhance or expand existing services. Include the project beginning and ending dates. Describe how the proposed

project meets and is consistent with the goals and objectives of the Section 5310 Program. Where new and/or enhanced or expanded services are proposed, be specific regarding the change and/or improvements to existing services including capacity, service hours, service areas, target populations, etc. Further include specific and detailed responses to the items below (a-e) where applicable to the proposed projects **(Up to 30 points)**.

a) **For all vehicle funding requests (Replacement and/or Expansion)**, complete and attach the "Vehicle Purchasing Schedule Form," included as **Attachment A**.

   i) **For vehicle replacement projects**, explain why the replacement vehicle(s) are needed. Complete and attach the "Vehicle Replacement Request Form" included as **Attachment B**. If requesting CNG fuel vehicle(s), justify the need and indicate whether your agency has the required fuel infrastructure, including the proximity of the fuel station in relation to your agency. If requesting Electric vehicle(s), justify the need and indicate whether your agency has an electrification draft plan, and if your agency is coordinating with another agency for the electrification. Indicate the plan for the disposition of the vehicles being replaced (e.g. backup or sell). Provide a cost/benefit analysis, if proposing to lease instead of procure vehicle(s).

   ii) **For vehicle(s) needed for "new" and/or enhanced or expanded service**, complete the "New Service or Service Expansion Vehicle Request Form" included as **Attachment C**. In the scope of work, also include the information requested below in section 1(b).

b) **For "new" and/or enhanced or expanded service, including operating, vehicles, and/or equipment expenses,** describe the new service and/or the growth in demand for transportation services by the target populations that your agency or organization is experiencing. Describe and include the service routes and schedules including trip coordination strategies conducted in support of the project and/or to be pursued; also, specify if your agency or organization will operate the service or will contract for the services. Discuss any projected increase in the number of clients to be served, target population(s), area(s) served, type of service to be provided, and how the enhanced and/or expanded service will increase the capacity of the services currently being provided. Indicate the new or additional days/hours of service to be provided per year, as well as the projected number of annual one-way passenger trips and miles each vehicle will travel during its useful life. If requesting expansion CNG fuel vehicle(s), justify the need and indicate whether your agency has the required fuel infrastructure, including the proximity of the fuel station in relation to your agency/organization. If requesting expansion Electric vehicle(s), justify the need and indicate whether your agency has an electrification draft plan, and if your agency is coordinating with another agency for the electrification.

c) **For communication and computer equipment, hardware and/or software, or any other eligible miscellaneous equipment in support of eligible projects**, complete and attach the "Communication/Computer Equipment Request Form" included as **Attachment D**. List the specific items to be purchased and attach three (3) like-kind estimates with this application. Estimates can be quotes received from manufacturers or Internet sites, advertisements, or product catalogs. Use the average cost of the three estimates to calculate the estimated unit cost in the proposal.

   i) **For replacement equipment**, provide a detailed description of the make, model, and year of the equipment to be replaced. Explain how it is currently being used to support your service and how its replacement is needed to improve service efficiency.

   ii) **For "new" equipment,** provide a detailed description of how it is going to be used to support your service and why it is needed to improve service efficiency.

d) **For safety equipment, supplies and services in support of eligible projects**, provide a detailed description of the specific equipment and supplies to be purchased, and services to be obtained due to the COVID-19 impact on operating services. Explain how it will be used to support your service.

e) **For improved passenger facilities**, attach two photos that show existing conditions and describe the proposed facility improvements. For transit stop improvements, provide the project's location and service area (including street names), as well as the total annual boardings and alightings at each location.

2) Explain how the proposed project (new, continuing, and/or enhanced/expanded) was developed or is being implemented in consultation with interested parties to ensure adequate coordination of existing and proposed transportation services, including seeking and considering comments and views of affected private and public transportation providers. Specify the agencies, groups, or stakeholders involved in the development of the proposed project and/or its implementation phase and their roles (such as health and human services agencies, agencies from the private sector, non-profit agencies, transportation providers, and members of the general public) to successfully implement the project, support coordination of services, and avoid duplication **(Up to 3 points)**.

3) Discuss how the project is or will be marketed to promote public awareness and expand coordination efforts with other parties **(Up to 2 points)**.

Section B: Coordinated Plan Consistency and Prioritization
(Up to 15 points)

Projects selected for FTA Section 5310 funding must be included in a locally developed, coordinated, public transit, human services transportation plan (Coordinated Plan) to comply with Federal requirements. The 2021-2024 Coordinated Plan for Los Angeles County (https://www.metro.net/cp) was developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private and nonprofit transportation, human services providers, and other members of the public such as veterans and persons of low-income. The outreach and public input obtained through focus groups, surveys, and project concept forms created the foundation of understanding the critical needs of target populations over the next four years.

One of the key outcomes of the 2021-2024 Coordinated Plan is a prioritized list of projects and programs to address the mobility needs and service gaps identified for the target populations. To ensure consistency with the plan, you will need to review the 2021-2024 Coordinated Plan (direct link) and complete Section B of the application and address the following evaluation criteria:

1. Indicate the priority ranking of the proposed project based on the overall prioritization ranking table on page 5 of the 2021-2024 Coordinated Plan. If the proposed project addresses more than one priority, select all that apply and indicate the percentage of the project in each priority level. The following points will be awarded based on the priority ranking of your proposed project: Priority 1 **(up to 10 points)**; Priority 2 **(up to 7 points)**; Priority 3 **(up to 4 points)**.

2. Explain how the proposed project addresses specific gap(s), barriers, goals and/or strategies identified in the 2021-2024 Coordinated Plan. If the proposed project addresses more than one priority, include details on the percentage of the project in each priority level. Include references to any other studies, surveys, or other information that were used to develop the project and substantiate its need using qualitative and/or quantitative analyses **(Up to 5 points)**.

Section C: Project Implementation, Operating and Management Plans
(Up to 15 points)

To receive the maximum number of points, describe your agency/organization's project operating and management plans as applicable to new, continuing, and/or enhanced/expanded project proposal. Include a proposed project schedule and provide key project milestones, potential risks along with associated mitigation strategies. Assume the start of eligible activities to be approximately eight (8) months after the application deadline. Include and address each of the following as applicable to the proposed project:

1. Describe the project's management plan, key milestones, and schedule, including a brief description of: 1) your agency/organizations experience and history in providing

transportation services and/or non-transportation services for seniors (65+), individuals with disabilities, welfare recipients, and/or eligible low-income individuals; 2) the role of key personnel and their relevant experience with implementing and managing similar transportation projects; and 3) any third-party contracts to be procured by the applicant after grant award and the proposed procurement method to be used **(Up to 10 points)**.

2. Describe your agency or organization's contingency plan to avoid service disruption due to staffing, mechanical, or technical problems. Further include response to the item (a) below if applicable to the proposed project **(Up to 5 points)**.

   a) For new, continuing, expanded and/or enhanced vehicular transportation service projects, describe your agency or organization's driver training program, maintenance program (i.e., daily pre-trip and post-trip inspection, and description of preventive and routine maintenance policies and procedures). Include a summary of your agency or organization's fleet. Responses shall apply to directly operated and/or contracted services.

Section D: Performance Indicators and Project Effectiveness
(Up to 15 points)

To receive the maximum number of points, identify the performance measures applicable to the proposed project to monitor that stated objectives are being met. Address the following evaluation criteria:

1. Provide quantitative and qualitative project performance measure(s) as required for each project type for each calendar year during the life of the proposed project. Include the methodology used to develop the performance measure estimates. Discuss any other performance indicators applied to the proposed project, such as projections for annual vehicle hours in service or number of persons receiving travel training. When projecting future performance, consider the current trends due to the COVID-19 pandemic and the proposed response activities expected to continue to regain ridership lost during COVID-19. **(Up to 10 points)**.

All performance measure data listed below under your proposed project type, **must** be identified in Part II of the grant application.

a. **For Section 5310 Traditional Capital**

   i. Gaps in Service Filled - The actual or estimated number of seniors (65+) and people with disabilities afforded mobility annually as a result of the Traditional Capital Section 5310 project.

   ii. Ridership - The actual or estimated number of rides measured by one-way passenger trips provided annually for seniors (65+) and individuals with disabilities as a result of the Traditional Section 5310 Capital project.

b. **For Section 5310 Other Capital and Operating**

i. Service Improvements - Increases or enhancements related to geographic coverage, service quality, and/or service times that impact availability of transportation services for seniors (65+) and individuals with disabilities as a result of Other Capital and/or Operating Section 5310 project.

ii. Physical Improvements - Additions or changes to physical infrastructure (e.g., transportation facilities, sidewalks, etc.), technology, and vehicles that impact availability of transportation services for seniors (65+) and individuals with disabilities as a result of Other Capital and/or Operating Section 5310 project.

iii. Ridership - Actual or estimated annual number of rides measured by one-way passenger trips provided for seniors (65+) and individuals with disabilities as a result of Other Capital and/or Operating Section 5310 project.

2. Explain how each applicable Program performance measure (ref Section D.1) will be used by the agency/organization to evaluate the effectiveness of the project in meeting the transportation needs of the targeted population(s). Identify potential strategies to mitigate performance measures that are not achieving the stated objectives **(Up to 2 points)**.

3. Describe the management tools and/or procedures to be used for collecting, tracking, and reporting the project's performance, including the on-going management and evaluation of performance indicators **(Up to 3 points)**.

Section E: Project Financial Plan / Project Readiness
(Up to 10 points)

Project Readiness is essential in determining whether a project is ready for funding or in immediate need of funding. It is important that subrecipients provide accurate and complete information for evaluating project readiness. Complete the Project Financial Plan table located in Section E of the application. Provide the projected expenditure amounts by year and quarter. Include a brief description of how the schedule is realistic to enable project completion based on the years of requested funding. If the proposed project is currently funded with other grants (through Metro or outside Metro), provide those details. The oldest funding will be used first, so if new funding is sought to continue a project, push the start date to the actual anticipated usage date **(Up to 10 points)**.

Section F: Budget Justification
(Up to 10 points)

Describe the assumptions for developing the budget for the proposed project included in Part III of the application. All costs must be broken down, and a detailed description for how you determined each cost must be provided. The total project net cost calculated should be the net of operating revenues (i.e., operating cost - farebox revenue collected = net cost).

Address the following (1-4) evaluation criteria **(up to 10 points)**:

1. Assumptions used to prepare the budget, such as quantity and level of service, basis for costs, inflation rate and prior experience. Include maintenance and repair costs, cost of fuel, casualty and liability insurance, and other administrative and direct costs; in-direct costs are **not eligible**. Note: Subrecipients may use up to a maximum of five (5) percent of the total operating project costs to support operating project activities including administration, planning, and technical assistance, which may be funded at 100 percent federal share. Program administrative costs for traditional and other capital projects are **not eligible**.

2. Identify all sources and amounts of operating revenue, including farebox revenue where applicable and revenue from local, state, and/or federal discretionary and/or formula grants that are proposed to be used to fund the proposed project.

3. Identify the total amount of federal funds requested from the specific Section 5310 Program and discuss the eligibility of the proposed expenditures.

4. Specify the amount and source of non-USDOT Local Match funds committed for the proposed project to meet statutory local match requirements. In addition:

    a. If providing cash match, attach a **Local Match Commitment Letter** to your application. The letter must:

        i. include the local match amount committed to the project
        ii. include the specific source of funding (i.e., Prop A., Donations)
        iii. be placed on your agency letterhead
        iv. be signed by a duly authorized representative

    b. If providing in-kind match, attach an **In-Kind Commitment Letter** to your application (in place of local match commitment letter). The letter must:

        i. include a detailed description of each in-kind item or service
        ii. include the real or approximate value of each item or service
        iii. describe how each value was determined (e.g., actual, appraisal, fair market value, independent cost estimate)
        iv. provide formulas/methodologies or assumptions used for determining the costs
        v. state if any of the contributions were obtained with or supported by federal funds
        vi. be placed on your agency letterhead
        vii. be signed by a duly authorized representative

PART III - PROJECT BUDGET

Complete the budget sheet for the proposed project, based on the funding category (traditional capital, other capital, or operating). Include all sources of revenue, including user fees and fares. Review all notes embedded in some of the worksheet's cells.

Important! Total project expenses must equal the total project funding requested.

1. Project Expenses: Identify and record project expenses over the proposed period of performance. All expenses must be eligible, reasonable, and justified.

2. Project Funding: Identify the Federal Section 5310 funding requested, and user fees and/or fare revenue expected to be collected (if applicable).

3. Each project must be fully funded; proposed local matches over the required minimum are acceptable.

4. Include all revenue from grants, donations, and local fund-raising projects that will be used to fund your proposed project.

5. Identify the source of local or in-kind match

PART IV - CERTIFICATIONS

Private Nonprofit (501(c)(3)) Organizations – Status Inquiry and Certification

Applicants claiming eligibility based on its status as a private nonprofit (501(c)(3)) organization must complete the status inquiry and certification. In addition, they must attach an online California "Business Search" record verifying their business status, along with their Internal Revenue Service (IRS) 501(c)(3) determination letter verifying their exemption status.

1. Nonprofit organizations must obtain verification of its current legal standing from the Secretary of State's California Business Search database and attach it as an appendix to the application. To assist your organization in obtaining this information, use one of these two methods:

   a) To obtain the records online, go to https://bizfileonline.sos.ca.gov/search/business. Enter the name of your organization or file number. If its status is active, screen print the page and submit it as an appendix to the application. If the verification of your status is not available at the time you submit your application, you must indicate the date on which you requested the verification and the estimated date it will be forwarded to Metro.

   b) If your organization is unable to locate the information on-line, it may obtain a "Status Inquiry" document by completing a Business Entities Records Request -

Order form. Instructions can be found here: https://bpd.cdn.sos.ca.gov/pdf/be-records-requests.pdf

2. Nonprofit organizations must be recognized under section 501(c)(3) of the Internal Revenue Code and must obtain a letter from the IRS confirming the organization's 501(c)(3) status. The **IRS 501(c)(3) determination letter must be attached** as an appendix to the application. If your determination letter is unavailable, an IRS exempt organizations affirmation letter is acceptable. Instructions on requesting that letter can be found here: https://www.irs.gov/charities-non-profits/exempt-organizations-affirmation-letters

Local Government Authority Certification

A local governmental authority includes: a political subdivision of a state, such as a city or county; a state authority or an authority of a political subdivision of a state; and a public corporation, board, or commission established under the laws of a state.

Metro may award funds to a local governmental authority to implement Traditional Section 5310 Capital projects under two conditions. First, if the governmental authority certifies that there are no non-profit organizations readily available in the area to provide the service. Second, if the governmental authority is approved by the state to coordinate services for seniors and individuals with disabilities.

For governmental authorities certifying that there are no non-profit organizations readily available in the area to provide the service, a **public hearing is required** and must be completed between the release date of the FY 2023 Solicitation of Proposals and the due date of the application. A copy of the public hearing notice and a letter summarizing the outcome of the hearing signed by an authorized representative **must be attached** as part of the application. The public hearing should be scheduled accordingly taking into consideration the minimum required 30-day public comment period prior to the date of the public hearing.

General Certifications and Assurances Summary

All applicants must sign the General Certifications and Assurances Summary form, in which the applicant assures that it will comply with federal statutes, regulations, executive orders, and administrative requirements, which relate to applications made to and grants received from FTA. The applicant acknowledges receipt and awareness of the list of such statutes, regulations, executive orders, and administrative requirements that are provided as references in FTA Circular 9070.1G ("Enhanced Mobility of Seniors and Individuals with Disabilities Program Guidance and Application Instructions") and incorporated by reference in the Funding Agreement to be executed by/between Metro and successful applicants.

Civil Rights Certification

A **Civil Rights Certification Letter must be attached** as an appendix to the application describing any lawsuits or complaints against your agency or organization within the last 12 months alleging discrimination on the basis of race, color, creed, national origin, sex, age or disability. The summary of lawsuits should include the date of complaint, lawsuit received and/or acted on, description status or outcome, corrective action taken, and date of final resolution. If no lawsuits or complaints were received or acted on, the letter should state that, "There were no lawsuits or complaints received or acted on in the last 12 months relating to Title VI or other relevant Civil Rights requirements." This letter should also discuss if your agency or organization has a Title VI Plan. If not, explain why and provide a date your agency or organization anticipates completing the plan. Discuss policies and procedures to make written and oral information available to clients and potential clients in languages other than English. This letter is to be printed on letterhead, signed by an authorized representative, and attached as an appendix to the application.

Current Grant Subrecipient Compliance

All applicants must indicate whether they currently have an active capital and/or operating project funded through a Metro grant subrecipient program or are reporting to Metro on a past capital project. If yes, applicants must answer whether or not they are currently in compliance with their grant program funding agreement, scope of work, and/or Metro annual self-certification reporting.

Debarment/Suspension Certification

Federal law (2 CFR part 1200) requires that all agencies receiving federal funds must certify that neither they nor their subcontractors have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from doing business with the federal government.

All applicants must sign the Debarment/Suspension Certification form certifying that neither their agency/organization nor any subcontractor affiliated with their agency has been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency.

A **SAM.gov Registration Status must be downloaded and attached** as an appendix to the application, showing an "Active" status of your agency/organization. This can be obtained by logging in and searching with your agency/organization name or Unique Entity ID (UEI) at https://sam.gov/search. Details on registering in the SAM or renewing or updating your existing SAM entity can be found on page 17 "System for Award Management (SAM)" of this solicitation.

Los Angeles County
Metropolitan Transportation Authority

FTA Section 5310 Program

Enhanced Mobility of Seniors and Individuals with Disabilities

FY 2023 Competitive Grant Application

Application Deadline: 5:00 pm on Monday, February 27, 2023

Metro

December 2022

Competitive Grant Application

FTA Section 5310 Program

FY 2023 Solicitation for Proposals

Application Deadline: 5:00 PM on Monday, February 27, 2023

Application Package Contents

Part I. General Information

Part II. Project Narrative

Part III. Project Budget

Part IV. Certifications

Attachments:

Attachment A: Vehicle Purchasing Schedule
Attachment B: Vehicle Replacement Request Form
Attachment C: New Service/Service E pansion Vehicle Request Form
Attachment D: Communications/computer Equipment Request Form

Application Instructions

Each agency/organization is allowed to submit one or more application(s), under any funding category. Separate applications must be submitted for each proposed project, and/or funding category. Categories cannot be combined in one application, even if the request is for one project. Total applicant funding request may not exceed **$1,200,000**.

The complete signed application with all required attachments must be combined into one single PDF. The PDF or a link to view/download the PDF must be emailed to **Section5310@metro.net** by the application deadline, 5:00 PM on Monday February 27, 2023.

Application packages with incomplete and/or missing information (e.g., status inquiry, certifications, not signed by a duly authorized representative) may render the proposal non-responsive and may not be evaluated. Use the application checklist to ensure completeness.

Applications will be evaluated and scored and must receive a minimum score of 70 out of 100 to be considered for funding. Funding requests may be partially funded, and we may request a reduction in a scope of work and associated budget.

Applications as submitted are to be complete and final. Modifications, amendments, or supplements to the application will not be accepted after the application deadline.

The application is provided in fillable PDF form. All questions must be concisely answered in the space provided. **No additional pages** can be included to answer the questions. Only required attachments can be included as appendices to the application.

Technical Assistance

If you have any questions, contact Ruben Cervantes at *cervantesr@metro.net*, or Anne Flores at *floresa@metro.net*. For additional information and resources, refer to the program website https://www.metro.net/about/fta5310.

Grant Application Checklist

FTA Section 5310 Program

FY 2023 Solicitation for Proposals

PART I- GENERAL INFORMATION	Completed Y_N_N/A
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
Map or Brochure is attached to the application showing existing service area, any proposed expansion, applicable list of zip codes	
The application is signed by a duly authorized representative; If a public entity, authorizing resolution is attached as an appendix to the application	
PART II- PROJECT NARRATIVE	
> Section A: Scope of Work, Need, Objectives, Coordinated and Outreach	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
All Vehicle Purchases: Completed Attachment A "Vehicle Purchasing Schedule" is included with the application	
Vehicle Replacement Projects: Completed Attachment B "Vehicle Replacement Request Form" is included with the application	
Vehicle Expansion Projects: Completed Attachment C "New Service/Service Expansion Vehicle Request Form" is included with the application	
Communication/Computer Equipment Purchases: Completed Attachment D "Communication/Computer Equipment Request Form" is included with application	
Communication/Computer Equipment Purchases: Three (3) quotes are included with the application	
Facility Improvement Projects: Two (2) photos showing existing conditions are included with the application	
> Section B: Coordinated Plan Consistency and Prioritization	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
Priority ranking table is completed, and specific gap(s), barriers, goals and/or strategies identified	
> Section C: Project Implementation, Operating and Management Plans	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
Proposed project schedule with key milestones included in the narrative	
> Section D: Performance Indicators and Project Effectiveness	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
All required performance measure data listed in the solicitation have been included with the application	
> Section E: Project Financial Plan / Project Readiness	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
All current grants/funding for proposed project (if any) are included in the Project Financial Plan description	
> Section F: Budget Justification	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
All costs are broken down, and a detailed description of how each cost was determined is included	
Providing Cash Match: Local Match Commitment Letter is attached to the application	
Providing In-Kind Match: In-Kind Commitment Letter is attached to the application	
PART III- PROJECT BUDGET	
All questions are addressed as directed in the Section 5310 Solicitation for Proposals	
Corresponding budget sheet is completed, and Total Project Expenses equals Total Project Funding	
PART IV- CERTIFICATIONS	
Private Nonprofit Agencies: Completed/Signed "Private Nonprofit Organizations – Status Inquiry and Certification"	
Private Nonprofit Agencies: "business search" record and 501(c)(3) status letter attached as appendices to the application	
Local Government Authorities: Completed/Signed "Local Government Authority Certification"	
Local Government Authorities Applying for Traditional Capital: A copy of the public hearing notice and a letter summarizing the outcome of the hearing attached to the application	
All Applicants: Completed/Signed "General Certifications and Assurances Summary"	
All Applicants: Completed/Signed "Civil Rights Certification" letter attached to the application	
All Applicants: Completed/Signed "Debarment/Suspension Certification"	
All Applicants: SAM.gov registration status attached to the application	

Part I
General Information

Name of Agency or Organization:
Project Title:
Project Decription (Brief):
Total Federal Funding Request: $

Application Information

SAM Unique Entity ID (UEI): _____

Address: _____

City/State/Zip: _____

Contact Person (Name and Title): _____

E-mail of Contact Person: _____

Phone (Area code + Number): _____

Project Budget Summary **(indicate amounts, percentages, and source of local match)**

A. Total Federal Funding Request _____ $ _____ %_____

B. Total Local Match | **Source:**_____ $ _____ %_____

C. Total Project Expenses _____ $ _____ %_____

If the federal funding request is not fully awarded, would your agency/organization be amenable to implementing a reduced Scope of Work?

Yes □ No □

AUTHORIZATION

I, _____, am the person duly authorized to sign this this application and associated certifications on behalf of my agency/organization. I also acknowledge that the information in this application package is a public record. To the best of my knowledge and belief, all data in this application is true and correct. My agency/organization will comply with applicable Certifications and Assurances, Metro Funding Agreement, and Metro and FTA requirements if federal financial assistance is awarded. If the agency/organization is a public entity, I acknowledge that there is an **authorizing resolution** attached to the application designating myself as the duly authorized person to sign on its behalf.

Signature of Authorized Representative

Date

Title of Authorized Representative

Name of Agency/Organization

Part I
General Information (continued)

Name of Agency or Organization:
Project Title:
Project Decription (Brief):
Total Federal Funding Request: $

Funding Category (Select only one)

☐ Traditional Capital

☐ Other Capital

☐ Operating

Applicant Eligibility (Select only one)

☐ Private Nonprofit (501(c)(3)) Organization

☐ State or Local Government Authority

☐ Operator of Public Transportation

Project Service Area (Select all applicable)

☐ Los Angeles, Long Beach, Anaheim Urbanized Area

☐ Lancaster, Palmdale Urbanized Area

☐ Santa Clarita Urbanized Area

☐ Other cities and unincorporated areas within LA County not listed above

☐ Areas outside of LA County

Project Goal (Select all applicable)

Refer to 2021–2024 Coordinated Public Transit – Human Services Transportation Plan for LA County

☐ Fund Mobility Options (https://www.metro.net/cp)

☐ Address Mobility Service Gaps

☐ Provide Support Services

☐ Promote and Improve Information Portals

☐ Enhance Accountable Performance Monitoring Systems

☐ Provide COVID-19 Support Services

Part I
General Information (continued)

Description of Applicant Agency/Organization
(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Part I
General Information (continued)

Description of Applicant Agency/Organization (continued)

Part II - Project Narrative
Section A

Part II consists of six sections (A-F) totaling 100 possible points. To receive the maximum number of points for each section, ensure that the narrative responses are clear, concise, complete, and accurate. Follow the application instructions in the Solicitation for Proposals carefully for expanded section descriptions, project applicability and evaluation criteria as guidance to complete each section. All questions must be concisely answered in the space provided. No additional pages can be included to answer the questions.

A. Scope of Work, Need, Objectives, Coordination And Outreach (Up To 35 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Part II - Project Narrative
Section A (continued)

A. Scope of Work, Project Need, Objectives, Coordination And Outreach

Part II - Project Narrative
Section A (continued)

A. Scope of Work, Project Need, Objectives, Coordination And Outreach

Part II - Project Narrative
Section A (continued)

A. Scope of Work, Project Need, Objectives, Coordination And Outreach

Part II - Project Narrative
Section B

B. Coordinated Plan Consistency and Prioritization (Up To 15 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Project Priority Ranking (Select all applicable)

2021–2024 Coordinated Public Transit – Human Services Transportation Plan for LA County

(https://www.metro.net/cp)

Refer to the "Overall Prioritization Ranking" table on page 5 of the Coordinated Plan (direct link to Plan). If the proposed project addresses more than one priority, select all that apply and indicate the percentage of the project in each priority level.

☐ Priority 1 %_____

☐ Priority 2 %_____

☐ Priority 3 %_____

☐ None %_____

%_____

Part II - Project Narrative
Section B (continued)

B. Coordinated Plan Consistency and Prioritization

Part II - Project Narrative

Section B (continued)

B. Coordinated Plan Consistency and Prioritization

Part II - Project Narrative

Section C

C. Project Implementation, Operating and Management Plans (Up To 15 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Part II - Project Narrative
Section C (continued)

C. Project Implementation, Operating and Management Plans

Part II - Project Narrative

Section C (continued)

C. Project Implementation, Operating and Management Plans

Part II - Project Narrative

Section D

D. Performance Indicators and Project Effectiveness (Up To 15 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Part II - Project Narrative
Section D (continued)

D. Performance Indicators and Project Effectiveness

Part II - Project Narrative
Section D (continued)

D. Performance Indicators and Project Effectiveness

Part II - Project Narrative

Section E

E. Project Financial Plan / Project Readiness (Up To 10 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Year	Q1 (Jul - Sep)	Q2 (Oct - Dec)	Q3 (Jan - Mar)	Q4 (Apr - Jun)	Totals

Description:

Part II - Project Narrative
Section E (continued)

E. Project Financial Plan / Project Readiness

Part II - Project Narrative

Section F

F. Budget Justification (Up To 10 Points)

(Follow and address all section guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Section 5310 Solicitation for Proposals).

Part II - Project Narrative
Section F (continued)

F. Budget Justification

Part II - Project Narrative
Section F (continued)

F. Budget Justification

Part III
Project Budget

1. Traditional Capital (Section 5310)

Project Expenses	
a. Contracted Services with Human Services Agencies	
b. Vehicle (purchase)	
c. Vehicle (lease)	
d. Equipment (purchase)	
e. Equipment (lease)	
f. Mobility Management	
g. Other (explain in Part II)	
Administration Expenses are **Not Eligible**	
Total Project Expenses* (Sum a-g) must equal total project funding	**$**

*Direct costs only; net of farebox revenue

Project Funding	
a. Total Federal Funding Request	
b. Total Local Match (source and amount)	
State Fund | **Source:**	
Local Fund | **Source:**	
Revenues from Contracts with Human Services Agencies	
Donations | **Source:**	
Applicant In-kind (e.g., property, land, office space, etc.)	
Non-applicant In-kind (e.g., volunteer drivers, escorts, travel aides)	
Non USDOT Federal Funding | **Source:**	
Other (explain in Part II)	
Total Local Match	
Total Project Funding* (Sum a+b) must equal total project expense	**$**

*Net of farebox revenue

Part III
Project Budget (continued)

2. Other Capital (Section 5310)

Project Expenses	
a. Contracted Services with Human Services Agencies	
b. Vehicle (purchase)	
c. Vehicle (lease)	
d. Equipment (purchase)	
e. Equipment (lease)	
f. Other (explain in Part II)	
Administration Expenses are **Not Eligible**	
Total Project Expenses* (Sum a-f) must equal total project funding	**$**

*Direct costs only; net of farebox revenue

Project Funding	
a. Total Federal Funding Request	
b. Total Local Match (source and amount)	
State Fund | **Source:**	
Local Fund | **Source:**	
Revenues from Contracts with Human Services Agencies	
Donations | **Source:**	
Applicant In-kind (e.g., property, land, office space, etc.)	
Non-applicant In-kind (e.g., volunteer drivers, escorts, travel aides)	
Non USDOT Federal Funding | **Source:**	
Other (explain in Part II)	
Total Local Match	
Total Project Funding* (Sum a+b) must equal total project expense	**$**

*Net of farebox revenue

Part III
Project Budget (continued)

3. Operating (Section 5310)

Project Expenses	
a. Contracted Services	
b. Vehicle Maintenance and Repair	
c. Vehicle Fuel	
d. Casualty & Liability Insurance	
e. Project Marketing	
f. Driver Labor	
g. Escorts, Travel Aides Labor	
h. Other (explain in Part II)	
i. Administration (cannot exceed 5% of Total Project Expenses)	
Total Project Expenses* (Sum a-i) must equal total project funding	**$**

*Direct costs only; net of farebox revenue

Project Funding	
a. Total Federal Funding Request	
b. Total Local Match (source and amount)	
State Fund | **Source:**	
Local Fund | **Source:**	
Revenues from Contracts with Human Services Agencies	
Donations | **Source:**	
Applicant In-kind (e.g., property, land, office space, etc.)	
Non-applicant In-kind (e.g., volunteer drivers, escorts, travel aides)	
Non USDOT Federal Funding | **Source:**	
Other (explain in Part II)	
Total Local Match	
Total Project Funding* (Sum a+b) must equal total project expense	**$**

*Net of farebox revenue

Part IV
Certifications

Private Nonprofit (501(c)(3)) Organizations – Status Inquiry And Certification

Applicants claiming eligibility based on its status as a private nonprofit (501(c)(3)) organization must complete the status inquiry and certification. In addition, they must attach an online California "Business Search" record verifying their business status, along with their Internal Revenue Service (IRS) 501(c)(3) determination letter verifying their exemption status.

1. Nonprofit organizations must obtain verification of its current legal standing from the Secretary of State's California Business Search database and attach it as an appendix to the application. To assist your organization in obtaining this information, use one of these two methods:

a) To obtain the records online, go to https://bizfileonline.sos.ca.gov/search/business. Enter the name of your organization or file number. If its status is active, screen print the page and submit it as an appendix to the application. If the verification of your status is not available at the time you submit your application, you must indicate the date on which you requested the verification and the estimated date it will be forwarded to Metro.

b) If your organization is unable to locate the information on-line, it may obtain a "Status Inquiry" document by completing a Business Entities Records Request - Order form. Instructions can be found here: https://bpd.cdn.sos.ca.gov/pdf/be-records-requests.pdf

2. Nonprofit organizations must be recognized under section 501(c)(3) of the Internal Revenue Code and must obtain a letter from the IRS confirming the organization's 501(c)(3) status. The **IRS 501(c)(3) determination letter must be attached** as an appendix to the application. If your determination letter is unavailable, an IRS exempt organizations affirmation letter is acceptable. Instructions on requesting that letter can be found here: https://www.irs.gov/charities-non-profits/exempt-organizations-affirmation-letters

Private Non-Profits (501(c)(3)) Organizations

Legal Name of Non-profit Applicant: _____

State of California Articles of Incorporation Number: _____

Date of Incorporation: _____

Part IV
Certifications (continued)

Local Government Authority Certification

A local governmental authority includes: a political subdivision of a state, such as a city or county; a state authority or an authority of a political subdivision of a state; and a public corporation, board, or commission established under the laws of a state.

Metro may award funds to a local governmental authority to implement **Traditional Section 5310 Capital** projects under two conditions.

1. Certifies that there are no non-profit organizations readily available in the area to provide the service; or
2. Is approved by the state to coordinate services for seniors and individuals with disabilities.

Local governmental authorities must certify that no non-profit agencies are readily available to provide the proposed service, by completing and signing the Certification below.

For governmental authorities certifying that there are no non-profit organizations readily available in the area to provide the service, a **public hearing is required** and must be completed between the release date of the FY 2023 Solicitation of Proposals and the due date of the application. A copy of the public hearing notice and a letter summarizing the outcome of the hearing signed by an authorized representative must be attached as part of the application. The public hearing should be scheduled accordingly taking into consideration the minimum required 30-day public comment period prior to the date of the public hearing.

Please check the option that most applies to your agency or organization to determine its eligibility as a local governmental authority to receive Section 5310 Program funds to implement traditional capital projects.

☐Certifying that my agency or organization is a local government and that there are no non-profit organizations readily available in the service area to provide the proposed service.

☐Certifying that my agency or organization is approved by the state to coordinate services for seniors and individuals with disabilities.

Certifying Representative

Name (print): _____

Title (print): _____

Signature: _____ Date: _____

Date of Public Hearing: _____

Part IV
Certifications (continued)

General Certifications and Assurances Summary

The "Certifying Representative" must complete the form. Use the legal name of your agency or organization. If the agency or organization is a public entity, attach an authorizing resolution as an appendix to the application, designating the person to sign on its behalf.

Legal Name of Applicant: _____

Address: _____

Contact Person: _____ Phone: _____ Email: _____

A. Pursuant to 49 CFR, Part 21, Title VI of the Civil Rights Act of 1964: The applicant assures that no person, on the grounds of race, color, creed, national origin, sex, age, or disability shall be excluded from participating in, or denied the benefits of, or be subject to discrimination under any project, program, or activity (particularly in the level and quality of transportation services and transportation-related benefits) for which the applicant receives federal assistance funded by the Federal Transit Administration (FTA).

B. Pursuant to 49 CFR, Part 21, Title VI of the Civil Rights Act of 1964: The applicant assures that it shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability and that it shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, age, or disability.

C. The applicant certifies that it will conduct any program or operate any facility that receives or benefits from federal financial assistance administered by FTA in compliance with all applicable requirements imposed by or pursuant to 49 CFR Part 27, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance" and the Americans with Disabilities Act of 1990, as amended, at 49 CFR Parts 27, 37, & 38.

D. The applicant assures that it will comply with the federal statutes, regulations, executive orders, and administrative requirements, which relate to applications made to and grants received from FTA. The applicant acknowledges receipt and awareness of the list of such statutes, regulations, executive orders, and administrative requirements that are provided as references in FTA Circular 9070.1G ("Enhanced Mobility of Seniors and Individuals with Disabilities Program Guidance and Application Instructions").

E. The applicant certifies that the contracting and procurement procedures that are in effect and will be used by the applicant for equipment are in accordance and comply with the significant aspects of FTA Circular 4220.1F, "Third Party Contracting Guidance."

F. The applicant certifies that any proposed project for the acquisition of or investment in rolling stock is in conformance with FTA rolling stock guidelines.

G. The applicant certifies that any proposed project for the acquisition of or investment in rolling stock, facilities and equipment will remain in safe, operating order, and the applicant will have written policies and/or procedures in place to maintain them. The applicant will maintain in operative condition those features of rolling stock and facilities that are required to make the rolling stock and facilities readily accessible. The applicant will repair the ADA accessibility features promptly if they are damaged or out of order. The applicant will establish a system of regular and frequent maintenance checks of lifts sufficient to determine if they are operative.

H. The applicant certifies that any proposed project for the acquisition of or investment in rolling stock, facilities and equipment will not be disposed of, the use modified, or the ownership terms changed, without permission and instructions from Metro, and in accordance with the disposition procedures referenced in FTA Circular 9070.1G and established in part 18 of the common rule at 49 CFR 18.32(e).

I. The applicant certifies that it will comply with 49 U.S.C 5323(d), 49 U.S.C. 5323(f), 5323(r), and 49 C.F.R. part 604, and not engage in charter and school bus operations using federally funded equipment or facilities in competition with private operators of charter and school buses, except as permitted.

J. The applicant certifies that it will comply with Government Code 41 USC. 701 et seq, and 49 CFR, Part 32 in matters relating to providing a drug-free workplace.

To the best of my knowledge and belief, the data in this application are true and correct, and I am authorized to sign these certifications and assurances and to file this application on behalf of the applicant.

Certifying Representative

Name (print): _____

Title (print): _____

Signature: _____ Date: _____

Part IV
Certifications (continued)

Civil Rights Certification

A **Civil Rights Certification Letter must be attached** as an appendix to the application describing any lawsuits or complaints against your agency or organization within the last 12 months alleging discrimination on the basis of race, color, creed, national origin, sex, age or disability. The summary of lawsuits should include the date of complaint, lawsuit received and/or acted on, description status or outcome, corrective action taken, and date of final resolution.

If **NO** lawsuits or complaints were received or acted on in the last 12 months relating to Title VI or other relevant Civil Rights requirements, please include the following statement in the letter:

"THERE WERE NO LAWSUITS OR COMPLAINTS RECEIVED OR ACTED ON IN THE LAST 12 MONTHS RELATING TO TITLE VI OR OTHER RELEVANT CIVIL RIGHTS REQUIREMENTS."

This letter should also discuss if your agency or organization has a Title VI Plan. If not, please explain why and provide a date your agency or organization anticipates completing the plan. Discuss policies and procedures to make written and oral information available to clients and potential clients in languages other than English. This letter is to be printed on letterhead, signed by a duly authorized representative, and attached as an appendix to the application.

Part IV
Certifications (continued)

Current Grant Subrecipient Compliance

If you are a current grant subrecipient with Metro and are not compliant with all subrecipient grant program requirements, you may not be eligible to apply for grant funds.

	YES	NO
Does your agency/organization currently have an active capital and/or operating project funded through a Metro grant subrecipient program, or is currently reporting to Metro on a past capital project?	o	☐
If yes, is your agency/organization currently in compliance with its grant program funding agreement, scope of work, and/or Metro annual self-certification reporting?	o	☐

Debarment/Suspension Certification

Federal law (2 CFR part 1200) requires that all agencies receiving federal funds must certify that neither they nor their subcontractors have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from doing business with the federal government.

A **SAM.gov Registration Status must be printed and attached** as an appendix to the application, showing an "Active" status of your agency/organization. This can be obtained by logging in and searching with your agency/organization name or Unique Entity ID (UEI) at https://sam.gov/search. Details on registering in the SAM or renewing or updating your existing SAM entity can be found on page 17 "System for Award Management (SAM)" of the solicitation.

By signing this Debarment/Suspension Certification form, you're certifying that neither your agency/organization nor any subcontractor affiliated with your agency/organization has been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency.

Certifying Representative

Name (print): _____

Title (print): _____

Signature: _____ Date: _____

Attachment A
Vehicle Purchasing Schedule

Applicants are encouraged to purchase vehicles through the federally compliant CalACT/MBTA Purchasing Cooperative as per the vehicle schedule below. Should applicants choose to purchase their own vehicles, the agency must follow all federal procurement requirements and vehicle approval will be limited to the similar type of vehicles shown below. The Estimated Unit Cost per vehicle represents the maximum eligible award available and includes the estimated cost of a standard accessible vehicle with wheelchair lift/ramp and securements, DMV fees, procurement fees, and applicable sales tax, and are subject to change at the time of purchase. If the actual cost per vehicle exceeds the estimated unit cost, the subrecipient will be required to fully fund the remaining cost.

VEHICLE TYPE	QUANTITY	ESTIMATED UNIT COST	TOTAL	DELIVERY LEAD TIMES
Class A Small Bus- Gas (Ford T350); 8 Ambulatory Passengers (AMB); 2 Wheelchairs (WC)				9 MONTHS
Class B Medium Bus- Gas (Ford E450); 12 AMB, 2 WC				9 MONTHS
Class B Medium Bus- CNG (Ford E450); 12 AMB, 2 WC				10 MONTHS
Class C Large Bus (Cutaway)- Gas (Ford E450); 16 AMB, 2 WC				9 MONTHS
Class C Large Bus (Cutaway)- CNG (Ford E450); 16 AMB, 2 WC				10 MONTHS
Class D Low Floor Minivan- Gas; 5 AMB, 2 WC				1 MONTH
Class G Low Floor Cutaway- Gas (Ford E450, GM 4500); 22 AMB, 2 WC				12-18 MONTHS
Class G Low Floor Cutaway- CNG (Ford E450, GM 4500); 22 AMB, 2 WC				12-18 MONTHS
Class V Raised Top Van- Gas; 9 AMB, 3 WC				6 MONTHS
Class Z-1 Electrified Class V Van; 9 AMB, 3 WC				TBD
Class Z-2 Electrified Class C Cutaway; 12 AMB, 2 WC				TBD
TOTALS				

View CalACT Vehicle Types HERE

Bus Vendor Websites: Creative Bus Sales, A-Z Bus Sales, RO Bus Sales

Attachment B

Vehicle Replacement Request Form

This form is to be completed by agencies requesting replacement vehicles. Complete the following items and the chart below:

> Total number of miles traveled per day for all active vehicles in revenue service _____ *(Do not include miles traveled using backup vehicles).*

> Agency's normal days and hours of operation (e.g., Monday thru Sunday 7:00 am to 7:00 pm).
_____

> Average service hours per day. _____

> Current wheelchair/lift users _____ % *(To compute, divide total number of wheelchair/lift clients by total number of riders).*

> Total fleet count after replacement _____

> Total peak service fleet count _____ (number of vehicles in service during peak service hours)

	Vehicle Discription (Year, Make and Type)	Last 5 Digits of (VIN)	Current Backup Vehicle? Y/N	Current Mileage	# of Fold Down Seats	Passenger Capacity Ambulatory / Wheelchair	Date Purchased or Leased (indicate if leased)	Vehicle Disposition (Backup or Sell)	Registered Owner (not lienholder)	Procured with Federal Funds? Y/N	If YES, name of Federal Fund Source	Vehicle Service Hours Per Day	Total One-Way Passenger Trips Per Day
Ex	*2017 Ford Starcraft*	*09354*	*No*	*195,000*	*4*	*18A/4W*	*Jun-17*	*Sell*	*City of Los Angeles*	*Yes*	*FY17 Section 5310*	*8*	*30*
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Attachment C

New Service/Service Expansion Vehicle Request Form

This form is to be completed by agencies requesting vehicles to:

> Start a new transportation service, or

> Add new or additional service to their current program

To complete the chart below:

> Indicate if vehicle request is for a New (N) transportation service or Service Expansion (SE) for an existing transportation service.

> Indicate type of requested vehicle, such as Van, Small Bus, Medium Bus, etc.

> Indicate the number of days of vehicle service (e.g., Monday – Friday = 5, Monday – Sunday = 7).

> Indicate the average number of vehicle service hours per day, exclude idle time (the time the vehicle is not in direct passenger service). Use whole hours; do not use ranges of hours or portions of hours.

> Calculate vehicle service hours by multiplying number of days of vehicle service with total service hours per day (exclude idle time)(e.g., 5 days per week x 8 hours per day = 40 hours per week).

> Indicate the number or estimated number of one-way passenger trips per day (each time a passenger boards the vehicle, a round trip would be counted as two passenger trips), and of this total how many are wheelchair/lift users.

> Indicate the projected average number of miles that the vehicle will travel per day.

> Total fleet count with new vehicles _____

> Total peak service fleet count _____ (number of vehicles in service during peak service hours)

	Type of Request N – New Service or SE – Service Expansion	Vehicle Type	No. of Days of Vehicle Service	Average Service Hours Per Day	Total Vehicle Service Hours Per Week	Total One-Way Passenger Trips Per Year	From the One-Way Passenger Trips Per Year, How Many are Wheelchair Trips	Projected Miles Per Day
Ex	*N or SE*	*Small Bus*	*5*	*8*	*40*	*5,000*	*1,200*	*400*
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Attachment D
Communication/Computer Equipment Request Form

This form is to be completed by agencies requesting:

> Computer equipment (software or hardware)

> Communications equipment (radios, base station, etc.) or

> Other equipment such as wheelchair restraints or improved passenger facilities (benches, shelters, etc.)

Applicant must attach **three estimates** of like-kind equipment with this application. The average of the three estimates will become the requested grant amount. After grant approval, the subrecipient must receive prior approval from Metro before purchasing. The subrecipient will be responsible for purchasing the equipment and submitting invoice to Metro to be reimbursed for the federal share.

Implementation of any ITS project shall be consistent with the Regional ITS Architecture. ITS projects must comply with Metro's Countywide ITS Policy and Procedures adopted by the Metro Board of Directors, including the submittal of a completed, signed self-certification form.

Equipment	Quantity Request	Estimated Unit Cost	Total Cost
Computer Hardware			+
Computer Software			+
Maintenance Equipment			+
Other Eligible Equipment (describe below)			+

Complete for Requesting Communication Equipment			
Base Station			+
Mobile Radio			+
Total Equipment Request			

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0661, **File Type:** Contract **Agenda Number:** 11.

**PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022**

SUBJECT: ACCESS FOR ALL PROGRAM FUNDING OPPORTUNITY FOR THE FISCAL YEAR 2023

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

APPROVE the Fiscal Year (FY) 2023 Solicitation for Proposals for up to $7,865,833 in funds available to Metro through the State of California's Access for All Program.

ISSUE

The State of California's Access for All Program provides funding to increase the availability of on-demand wheelchair accessible vehicle (WAV) service throughout the state. Consistent with Metro's role as the administrator of these funds for Los Angeles County, staff requests Board approval to issue a competitive funding opportunity to potential service providers.

BACKGROUND

Senate Bill (SB) 1376 requires the California Public Utilities Commission (CPUC), as part of its regulation of Transportation Network Companies (TNCs) such as Uber and Lyft, to establish a program to improve the accessibility of persons with disabilities to on-demand transportation services requested through online-enabled applications or platforms. Through this program, TNCs pay a fee of $0.10 to the CPUC for each passenger trip originating in each county statewide that their providers complete. From the fees collected, the CPUC created an "Access Fund" to deposit the revenue, which is then redistributed to Local Access Fund Administrators (LAFAs) to pay for services of competitively selected Access Providers to operate on-demand WAV service in their counties. The CPUC also approved allowing LAFAs to use up to 15 percent of the amount it allocates to each county each year to cover administrative expenses.

In June 2021, the Metro Board of Directors authorized Metro to serve as the Los Angeles County LAFA. As such, Metro is responsible for the planning, distribution, management, and oversight of funds for each annual funding cycle (until the SB 1376 sunset date in 2027, unless extended). Per the CPUC program requirements, LAFAs must distribute funds via a competitive solicitation process. Metro staff have been conducting outreach with interested parties and stakeholders throughout Los Angeles County to guide the local priorities of this program.

DISCUSSION

The Access for All Program funds provide Los Angeles County with the opportunity to expand access to on-demand WAV service to persons with disabilities in Los Angeles County. The program aims to improve the response time of on-demand WAVs. This performance metric was a common concern heard during meetings with an advisory program working group. Another program goal is to increase the number and availability of WAVs for hire. Through our outreach and learning from other LAFAs' experiences, we considered several options to structure a program in Los Angeles County. These included partnering with government agencies to provide service directly, funding software or other solution to broker on-demand service across multiple transportation providers across LA, and conducting a project solicitation process to make one or more awards to operating or capital projects throughout the county. Our approach for this funding opportunity is the last, which we estimate will best meet the program goals above.

We will release a funding application (see Attachment A: Draft Solicitation for Proposals and Application Package) with a submittal deadline in February 2023 to the public following Board approval. Government, non-profit, and for-profit organizations will be eligible to apply if they provide direct WAV transportation service and otherwise meet the definition of Access Provider per the CPUC. After evaluating the applications, Metro will make funding recommendations to the Board and provide ongoing oversight of any successful Access Providers.

Available Funding

Los Angeles County has received $9,253,922 in funding from the FY 2021 and FY2022 funding cycles combined. Of these funds, 15% is set-aside for administrative expenses, leaving a total of $7,865,833 for eligible projects.

DETERMINATION OF SAFETY IMPACT

Approval of the recommended actions will not impact the safety of Metro's customers and employees.

FINANCIAL IMPACT

There is no budget impact in FY 2023. Since these are multi-year projects, the cost center manager for 0441 (Planning - Subsidies to Others) and the Chief Planning Officer will be responsible for budgeting in future years.

Impact to Budget

Access for All Program funds will fully fund the recommended action. No other Metro funds will be required to manage, administer, and oversee the program. The Access for All funds are not eligible for Metro's bus and rail operating and capital expenditures.

EQUITY PLATFORM

The Access for All Program aims to improve WAV on-demand transportation service in Los Angeles County, which will directly benefit persons with disabilities-a population that as a whole experience disproportionate challenges to accessing mobility options. For example, nationally, people with disabilities make twice as many TNC/taxi trips as non-disabled persons per capita, Still, taxis account for two-thirds of their TNC/taxi trips-indicating an undersupply of WAV TNC trip capacity. As part of Metro's AFA Program Development and as part of our Coordinated Plan update in 2020, we engaged persons with disabilities and other stakeholders (e.g., seniors) to discuss funding needs and priorities. A consistent theme was the need for more WAV on-demand services. Metro does not offer a service equivalent to curb-to-curb WAV on-demand transportation, and the funding available through this opportunity will help address this demand countywide. With the available data, Metro focuses on the mobility needs of persons with disabilities as a demographic priority and carries this consideration through the current solicitation. Consistent with the goals of the Access for All Program, Metro will evaluate project proposals based on their potential to enhance mobility for the target population. Metro will present award recommendations to the Technical Advisory Committee and assess how the awards would benefit Equity Focus Communities (EFCs). Per Metro's competitive grants process, 5% of the total funding amount is set aside for TAC to allocate at their discretion, which should include equity considerations, evaluation results, and appeals. Metro will also use project location information in future Coordinated Plan updates to define areas or populations of higher need within the target population and future funding opportunities to ensure sufficient coverage of Equity Focus Communities (EFCs).

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports the following goals of the Vision 2028 Strategic Plan:

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling; and

Goal 3: Enhance communities and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The Board could elect not to approve the recommended action. Staff does not recommend this alternative because without Board approval, Metro cannot fulfill its responsibilities as the local fund administrator for Access for All Program funds. Metro could also risk losing program funding if no action is taken to use the program funds for achieving program goals.

NEXT STEPS

With Board approval, staff will proceed to administer the activities necessary to make the Access for All Program funds available for the FY2023 Solicitation for Proposals. The application will be released on December 5, 2022, and applications will be due on February 6, 2023. Staff expects to return to the Board for approval of funding recommendations in Spring 2023.

ATTACHMENTS

Attachment A - FY 2023 AFA Solicitation for Proposals and Application Package

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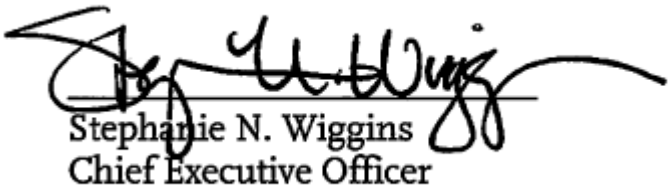

Stephanie N. Wiggins
Chief Executive Officer

The Los Angeles County Metropolitan Transportation Authority

Access for All Grant Program

To expand access to Wheelchair Accessible Vehicle (WAV) demand-responsive transportation.

FY 2023 Solicitation for Proposals and Application Package

Metro

Contents

I. PROGRAM INTRODUCTION

In 2018, the SB 1376 – TNC Access for All (AFA) Act, became law and required the California Public Utilities Commission (CPUC) to establish a statewide program to improve on-demand wheelchair-accessible vehicle (WAV) transportation services. The AFA requires a Transportation Network Company (TNC) on-demand service like Uber and Lyft to collect a ten-cent fee on each TNC ride, which is deposited into a State Access Fund that supports local efforts to increase WAV access. In June 2021, the Board authorized Metro to serve as the Los Angeles County Local Access Fund Administrator (LAFA).

The LAFA is responsible for developing the AFA program for the region, engaging with community stakeholders and establishing a process for procuring WAV access providers through a competitive solicitation. The CPUC requires the LAFA to award contracts to access providers by July 1 of the following year, and selected access providers must liquidate the awarded funds within 12 months.

CURRENT FUNDING OPPORTUNITY

The Los Angeles County Metropolitan Transit Agency (Metro) is soliciting proposals from eligible applicants for its Fiscal Year (FY) 2023 Access for All Grant Program for eligible projects that best achieve program goals and meet Access for All program requirements. This solicitation is a competitive selection process that will result in the award of available state funds to eligible organizations after an evaluation and ranking of proposals and the approval of funding awards by the Metro Board of Directors.

The Access for All funds made available for the FY2023 Solicitation for Proposals include State funds allocated to the County of Los Angeles in Cycle 1 and Cycle 2 (2021 and 2022) as authorized under the TNC Access for All Act. The TNC Access for All Act provides an opportunity to expand access to WAV demand-responsive transportation to people with disabilities from the net revenue generated from the TNC fee per trip originating in each county in California.

The Access for All Grant Program can provide operating and capital assistance to establish on-demand transportation programs or partnerships to meet the needs of persons with disabilities, specifically wheelchair users who need a WAV. Eligible applicants include public agencies, not-for-profit organizations, and private/commercial entities. Eligible projects must increase the availability of on-demand WAV transportation in the County of Los Angeles.

FY 2023 Access for all Grant Program Tentative Schedule

After detailed evaluation and ranking by a panel including external representatives, Metro staff, in consultation with the Metro's Technical Advisory Committee (TAC), will recommend to the Metro Board the applicants selected for award. A schedule for the 2023 Access for All Grant Program is as follows, subject to change:

Notice of Funding Availability: Release Solicitation for Proposals	December 5, 2022
Convene Potential Applicant Workshops*	December 14, 2022
AFA Applications Due	February 6, 2023
Application Review and Evaluation Period	February/March 2023
Notify Applicants of Preliminary Award Recommendations	March 6, 2023
TAC Appeal Hearings	April 5, 2023
Board Approval: Funding Award Recommendations	May 2023
Notify Applicants of Awards	May 2023
Convene Successful Applicant Workshops	June 2023
Send Funding Agreements/Contracts to Access Providers	June 2023

Glossary of Terms

Access for All (AFA) refers to the TNC Access for All Program, created by the California Public Utilities Commission to implement Senate Bill (SB) 1376 or the Access for All Act (Hill: 2018). In this Call for Projects, AFA also refers to the SANDAG Access for All Program.

Access Provider means an organization or entity that directly provides, or contracts with a separate organization or entity to provide, On-Demand Transportation to meet the needs of persons with disabilities, as defined in Public Utilities Code Section 5431.5(a).

Americans with Disabilities Act (ADA) prohibits discrimination against and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation (42 U.S.C. § 12101 et seq.).

California Public Utilities Commission (CPUC) is a regulatory agency that regulates privately owned public utilities in the state of California, including TNCs. The CPUC was required to establish a program relating to accessibility for persons with disabilities as part of its regulation of TNCs under the implementation of SB 1376.

Direct Cost is an expense that can be directly assigned to a grant-funded project relatively easily with a with a high degree of accuracy.

Fixed-Route Transportation uses buses, vans, light rail, and other vehicles to operate a transportation service on a predetermined route according to a predetermined schedule.

Fulfilled Trip means a trip is requested by a rider, the trip is accepted by a provider, and the rider reaches their requested destination.

Grantee is an organization that has been awarded funding through the Access for All Grant Program and has entered into a grant agreement with Metro.

Indirect Cost is an expense incurred for a common or joint purpose benefitting more than one grant-funded project that cannot be readily assigned to a specific grant, contract, or other activity, without effort disproportionate to the results achieved.

Net Project Cost is calculated as the Total Project Cost less any revenue generated through the project.

Non-scalable Project is a project whose Project Scope of Work cannot be reduced because doing so (a) is not possible, (b) would create an incomplete project that contributes little to the grant program goals or provides little value to those intended to benefit from the project, and/or (c) would have scored substantially differently in the competitive process with a reduced Project Scope of Work.

Notice to Proceed is the written authorization Metro issues to a Grantee after a Grant Agreement has been executed to allow for a project to begin. The Notice to Proceed includes the date the Grantee can incur expenses that may be eligible for reimbursement.

On-Demand Transportation means a transportation service that does not follow a fixed route or schedule and the provider can fulfill trip requests within twelve hours.

Period of Performance is the total time interval between the start of an awarded project that has received a Notice to Proceed, and the project's planned end date as specified in the Grant Agreement or, if applicable, an amendment to the Grant Agreement.

Response Time is the elapsed time between when a trip is requested and when the passenger is picked-up.

Scalable Project is a project whose Project Scope of Work can be reduced and still further the grant program goals while providing significant value to the public intended to benefit from the project. Metro staff will consider how the project would have scored in the competitive process if the Project Scope of Work were reduced. If the project would have scored substantially the same with the scaled-down Project Scope of Work and the scaled-down project would further the grant program goals and provide significant value to the public intended to benefit from the project, then the project may be scaled.

Total Project Cost is calculated as the sum of the grant award.

Transportation Network Company (TNC) is an organization, whether a corporation, partnership, sole proprietor, or other form, operating in California that provides prearranged transportation services for compensation using an online-enabled platform to connect passengers with drivers using their personal vehicles.

Wheelchair-Accessible Vehicle (WAV) means a vehicle equipped with a ramp or lift capable of transporting non-folding motorized wheelchairs, mobility scooters, or other mobility devices, as defined in Public Utilities Code Section 5431.

II. FUND AVAILABILITY

The AFA funds available for the FY2023 solicitation total $7,865,833. Applicants may apply for up to $7,472,541, and 5% ($393,292) of the total will be made available through the Metro Technical Advisory Committee's appeals process. Applicants that are not initially recommended for funding will be notified and given an opportunity to appeal to the TAC. Metro staff and TAC recommendations will be presented to the Metro Board for final approval of funding awards.

New funding becomes available annually from the CPUC based on the number of TNC passenger trips in Los Angeles County for the previous year. CPUC will announce the anticipated funding balance by January 30th of each year. Metro will make these funds available for new solicitations on an ongoing basis when sufficient funds are available to conduct an effective solicitation. Any unused or returned funds from previous years will roll over to be included in future solicitations.

Matching local funds are not required.

III. ELIGIBLE APPLICANTS

Eligible applicants for Access for All funds must directly provide, or contract with a separate organization or entity to directly provide, on-demand WAV transportation to meet the needs of persons with disabilities.

Eligible Access Providers include:
(1) Transportation carrier[s] that hold a Commission-issued permit prior to applying to be an Access Provider;
(2) A non-permitted transportation carrier if the carrier provides documentation that demonstrates the following:

- Background checks: Carriers must perform background checks that meet or exceed what is required of TNCs under the TNC Applications Form. (LINK)
- Insurance: Carriers must have levels of insurance equivalent to or higher than to what is required of charter-party carriers under General Order 115.(LINK)
- Controlled substance and alcohol testing: Carriers must be enrolled in a controlled substance and alcohol testing program.
- Secretary of State registration: Carriers must have their articles of incorporation filed with the Secretary of State.
- Motor Carrier Profile with California Highway Patrol (CHP): Carriers must complete the CHP 362 Motor Carrier Profile and obtain a CA Number from the CHP(LINK).

The approved non-permitted carrier shall submit a declaration to its respective AFA affirming compliance with each of the requirements and that each requirement is in effect during the term the carrier operates as an Access Provider

(3) TNCs that meet certain requirements and attest to meeting the eligibility requirements to

apply as an Access Provider. The attestation must be included with their application. The attestation can be downloaded here https://www.cpuc.ca.gov/regulatory-services/licensing/transportation-licensing-and-analysis-branch/transportation-network-companies/tnc-accessibility-for-persons-with-disabilities-program/tnc---access-for-all-program-access-provider.

IV. ELIGIBLE EXPENSES

A qualifying expense for an Access Provider must improve wheelchair accessible vehicle service and be reasonable, legitimate and included on the list of eligible expenses in this section.

For Access Providers that provide WAV services for a TNC, the Access Provider shall not use Access Fund moneys for trips that are compensated by a TNC. Accordingly, the AFA is permitted to request additional information from Access Provider applicants as necessary to sufficiently review the application. An Access Provider applicant shall disclose whether it is a current or former service provider for a TNC. The Access Provider applicant must demonstrate to the AFA that any Access Fund monies will not be used for services that are compensated by a TNC.

Eligible expenses must be directly related to the execution of the Project Scope of Work proposed in the application and finalized in the executed grant agreement. Metro will only reimburse costs that were actually incurred for the project after the Notice to Proceed has been issued, and only up to the amount awarded in the grant agreement. In the event of project cost overruns, Metro will not pay more than the original amount specified in the grant agreement.

Vehicle Costs
Lease/Rental/Purchase Costs
Rental Subsidies for Driver
Inspections
Maintenance, Service & Warranty
Fuel Cost
Cleaning Supplies/Services
Partnership Costs
Transportation Service Partner Fees/Incentives and/or Management Fees
Vehicle Subsidies
Consultants/Legal
Marketplace Costs
Recruiting
Driver Onboarding
Training Costs
Driver Incentives
Promo Codes for WAV
Operational Costs
Marketing Costs

Technology Investments/Engineering Costs/Enhancements
Community Partnership/Engagement Costs
Rental Management
Pilot Management
Wages, Salaries and Benefits (non-maintenance personnel)

Ineligible Activities and Expenses

Ineligible projects and activities are those that do not align with program goals and objectives. The following activities and expenses are ineligible through the grant program:

- Administrative costs of persons employed by the Grantee for activities not directly related to the preparation and adoption of the proposed activity or activities;
- Costs for work performed prior to Metro issuing a Notice to Proceed to the Grantee;
- Claims or litigation costs.

V. PROGRESS REPORTING REQUIREMENTS

Grantees must complete and submit quarterly progress reports with documentation in conjunction with an invoice to receive reimbursement. Progress report data from Grantees must be submitted to Metro within 30 days after the end of each quarter. Copies of subcontracts must be submitted with the first report containing subcontracted work. Grantees may be required to use specific report templates and an online platform for submissions to Metro.

Metro will measure grant performance against the stated project goals and deliverables in the Project Scope of Work included in the grant agreement. Poor performance may be grounds for termination of the grant agreement and revocation of the grant

The first reports shall be due to Metro within 30 days following the first full quarter after Notice to Proceed. Reporting templates for Access Providers can be accessed here (see Access Provider Templates).

1. **Number of Unique WAVs in Operation** – by quarter and aggregated by hour of the day and day of the week. “In operation” is defined when a WAV: (a) is available to receive a trip request in that quarter/hour/day or (b) has accepted a trip request in that quarter/hour/day.
2. **Number and percentage of WAV trips completed, not accepted, cancelled by passenger, cancelled due to passenger no-show, and cancelled by driver** – by quarter and aggregated by hour of the day and day of the week.
3. **Completed WAV trip request response times** - in deciles, as well as broken out by Period A (time elapsed from when a trip is requested until the trip is accepted) and B (time elapsed from when a trip is accepted until the vehicle arrives). Response time is the elapsed time between when a trip is requested and when the passenger is picked-up (Period A plus Period B). For example, the Access Provider shall report that 10 percent of all trip requests originating in a geographic area and quarter were fulfilled in X response time minutes, 20 percent were fulfilled in X response time

minutes, etc. In addition, the Access Provider shall report that the Period A time was X minutes for 10 percent of completed trips, that the Period B time was X minutes for 10 percent of completed trips, etc. Accordingly, to verify the Access Provider's WAV response times, the Access Provider shall provide WAV trip response times in deciles, as well as Periods A and B in deciles, by quarter.

4. **Trip Completion Rate** – % completed WAV Trip Requests. Calculated by dividing total trips completed by total requested unique trips, multiplied by 100%.
5. **Evidence of outreach** - to publicize and promote available WAV services to disability communities, how the partnership promoted WAV services, and marketing or promotional materials of those activities.
6. **Certification of Driver Training** – Certification that all WAV drivers operating on its platform have completed driver training on transporting peoples with disabilities within the past three years, including sensitivity training, passenger assistance techniques, accessibility equipment use, door-to-door service, and safety procedures.
7. **Report of WAV Driver Training Programs** – List of driver training programs completed and number of WAV drivers that completed each training in that quarter.
8. **Certification of Inspection** - that all WAVs operating on its platform have been inspected and approved to conform with the ADA Accessibility Guidelines for Transportation Vehicles within the past year.
9. **Number of complaints** - received related to WAV driver or WAV services, categorized as follows: securement issues, driving training, vehicle safety and comfort, Service animal issue, stranded passenger, and others.
10. **Funds Expended** – Itemized list of eligible activities funded through this program.
11. **Contract Information** – Identify the parties to the contract, the duration, the amount spent on the contract, and how the amount was determined.
12. **Safety Protocol Declaration Form** – Certify under penalty of perjury to comply with Safety Protocols.

VI. APPLICATION INSTRUCTIONS

Each applicant is allowed to submit one application**.** A minimum of 70 points per application score is required to be considered for funding. If the funding request is not fully awarded, applicant/agency may offer a reduced scope of work and associated budget or decline funding award.

1. Submit the application to Metro by 5:00 pm on February 6, 2023, via email at AccessForAll@metro.net. **The entire signed application and all attachments must be included in the electronic copies, preferably in a single pdf file.**

2. Applications are to be complete and final. Amendments or supplements to the application will not be accepted after 5:00 pm on February 6, 2023. **Application packages with incomplete and/or missing information will not be evaluated.**

3. The application format is provided in fillable PDF forms. An electronic version of the application can be accessed at https://www.metro.net/about/access-for-all/.entire

4. Review these application instructions, guidelines, and evaluation criteria carefully to ensure a complete and competitive application that sufficiently address each of the required and applicable components.

Your attendance at a Workshop for Potential Applicants, to be organized by Metro, tentatively scheduled for December 14, 2022, is highly encouraged. The workshop information can be found at https://www.metro.net/about/access-for-all/.

Selection of Proposals for Funding Award Recommendations:

Applications will be evaluated and ranked based on the final score provided by the Evaluation Panel. Funds will be allocated according to the ranking of projects to the maximum amount made available for the FY 2023 Solicitation for Proposals. Award recommendations will be limited to proposals that receive a final score of 70 or above (out of a maximum of 100) and subject to funds availability. Ultimately, the Metro Board of Directors will approve the funding award recommendations.

Public Record Disclaimer:

Application materials and attachments submitted to the Los Angeles County Metropolitan Transportation Authority (Metro) in response to its FY 2023 Solicitation for Proposals for the Access for All Program are not considered confidential. Application contents and attachments received by Metro are considered public records. Applicants should not include confidential information such as client names, addresses, specific medical diagnoses, telephone numbers, and other personal information.

Responsibility of Grant Subrecipient

When an agency other than the applicant identified in the application is proposed to operate vehicles or other equipment for which Access for All Program funds are requested, control and responsibility for the operation of the vehicles or other equipment must remain with the grant subrecipient throughout the life of the asset operating consistent with the project or service proposal.

In this case, the subrecipient remains the registered owner of the vehicle or equipment and remains fully responsible for program compliance, including, but not limited to, operation oversight, reporting, insurance, maintenance and monitoring. Non-compliance with program requirements may result in the relinquishment of vehicles and/or equipment to Metro.

VII. APPLICATION GUIDELINES & EVALUATION CRITERIA

Los Angeles County Metropolitan Transportation Authority (Metro) staff will screen all proposals received by the time and date deadlines for completeness and eligibility for evaluation consideration. Application packages with incomplete and/or missing information may not be evaluated. Applications as submitted are to be complete and final. Amendments or supplements to the application will not be accepted after the due date. Review these application instructions, guidelines, and evaluation criteria carefully to ensure a complete and competitive application that sufficiently address each of the required and applicable components as detailed in the FY 2023 Access for All Solicitation for Proposals.

Metro will form an Evaluation Panel with representatives knowledgeable of on-demand transportation services for persons with disabilities which will evaluate and score the proposal applications. All proposal applications will be reviewed and scored to ensure the proposed projects are responsive to the eligibility criteria for the program, as well as to the evaluation criteria. The final score for each proposal, and corresponding ranking, will be calculated based on the average scores from the panel members who were tasked to evaluate and score the application.

Applications will be ranked based on the final scores. Award recommendations will be limited to proposals that receive a final score of 70 or above (out of a maximum of 100). From the list of projects with a final score of 70 or above, funds will be allocated from the highest ranked project down to the lowest until available funds have been exhausted. Please note that some projects that score a 70 or above may be partially funded or not recommended for funding due to funds availability.

Project sponsors of projects not recommended for funding will have an opportunity to appeal the decision at Metro's Technical Advisory Committee. Only information contained in the submitted application may be presented to TAC during the appeal. Detailed instructions on the appeal process will be transmitted when project award recommendations are made. Ultimately, the Metro Board of Directors will approve the funding award recommendations that will receive grant funds.

The following outlines in detail the application content required and the maximum score possible for each scoring segment of the application.

PART I - GENERAL INFORMATION

In this section of the application, describe your agency or organization and its experience with providing wheelchair accessible transportation service. Also briefly describe the proposed project's scope, schedule, and budget, and how it will increase the availability of WAVs in Los Angeles County. This section (PART I) will not be scored independently; however, it must support and be consistent with responses to the scored responses in Part II.

Description of Applicant Agency/Organization's Operations*

1. Briefly describe your agency or organization, including its mission, history, and organizational structure.

2. WAV transportation programs and services currently managed and/or provided including identification of third-party Access Providers (if any), existing WAV vehicles and other equipment necessary to provide on-demand WAV service, areas served, days/hours of service. Specifically, to the extent this information is available (if unavailable, please briefly explain):

    a) Number of WAVs in operation - by quarter and aggregated by hour of the day and day of the week;
    b) Number and percentage of WAV trips completed, not accepted, cancelled by passenger, cancelled due to passenger no-show, and cancelled by driver – by quarter and aggregated by hour of the day and day of the week;
    c) Completed WAV trip request response times in deciles, as well as Periods A and B, by quarter

3. The number of individuals who currently receive on-demand WAV transportation assistance managed/provided by your agency or organization, WAV trip request response times and how rides are deployed.

4. Attach a map or brochure showing the existing or proposed service area of your agency or organization, as well as any proposed expansion requested to be funded (if applicable). The map should identify service boundaries and zip codes.

5. Describe WAV driver training programs used and the number of WAV drivers that completed training in the prior year and state whether WAVs have been inspected and approved to conform with ADA Accessibility Specifications for Transportation Vehicles within the past year (if applicable).

6. For services currently in operation, list the number of complaints received related to WAV drivers or WAV services, categorized as follows: securement issue, driving training, vehicle safety and comfort, service animal issue, stranded passenger, and other.

7. Provide financial information including estimated income, estimated expenses, and list and explain all sources of operating revenue.

**Note: If any of the above information is unavailable or not applicable, please explain.*

Description of the Proposed Project

Briefly describe the scope, schedule, and budget for the proposed project using the space provided in the application.

1. What is your proposal for increasing on-demand WAV availability in Los Angeles County? Does it include utilization of existing WAV vehicles, coordination with third-party Access Provider, enhanced dispatch system, acquisition of WAV vehicles to enhance existing fleet or other approaches?

2. How will the project be phased to ensure implementation is successful within the one-year performance period?

3. What is the expected budget to support the successful implementation within the performance period?

PART II – PROJECT IMPLEMENTATION, OBJECTIVES AND BENEFITS

Part II consists of four sections (A-D). Metro will evaluate each application solely on the information provided in these sections. The weight of each section is indicated, and cumulatively total **100 possible points**. Ensure that the narrative responses are clear, concise, complete and accurate and specifically address the evaluation criteria provided as guidance for each section.

Section A: Project Readiness and Technical Capacity (Up to 15 points)

1. Project Readiness is essential in determining whether a project is ready for funding. The Applicant must demonstrate project readiness in providing on-demand WAV services. Applicants should demonstrate an ability to begin offering on-demand WAV services within 30 days of funding agreement execution.

2. The Applicant must demonstrate the technical capacity to manage the proposed grant funded project. Applicants must also demonstrate capacity to fulfil the grant requirements or provide on-demand WAV service to a broad range of users. Applicants should describe 1) the role of key personnel and their relevant experience with providing on-demand WAV service; and 2) any third-party Access Providers that will be assigned to the project.

Section B: Project Implementation Plan (Up to 35 points)

To receive the maximum number of points, provide a detailed and clear description of the project, emphasizing its goals and expected outcomes.

1. Describe the project's operational plan, including: a description of day-to-day project operations for the on-demand WAV service to be provided; the service area to be covered; fare collection; and fare parity with current TNC operators.

2. Describe how the proposed project is consistent with the goals of the grant program to increase the presence and availability of WAV vehicles in service and to reduce response times.

3. Explain how the award of Program funds will allow your organization to continue existing services or otherwise meet existing demand.

4. What percent of the proposed service area covers areas currently unserved by the LA County Coordinated Paratransit operator Access Services? (see Figure A)

5. Describe the Applicant's procedures for preventative and routine vehicle maintenance.

6. Describe the management tools and/or procedures to be used for collecting, tracking, and reporting the project's performance, including the evaluation of performance indicators.

Section C: Customer Experience and Program Outreach (Up to 35 points)

1. Describe how the proposed project was developed in consultation with interested parties to ensure adequate coordination of existing and proposed transportation services. Specifically, to the extent this information is available (if unavailable, please provide a brief explanation): evidence of outreach efforts to publicize and promote available WAV services to disability communities, which may include a list of partners from disability communities, how the partnership promoted WAV services, or marketing and promotional materials of those activities. This should include discussion of any specific efforts to build and preserve relationships with disability communities.

2. Applicants should have a comprehensive and effective strategy to reach disability communities and promote their on-demand WAV services. Describe the proposed strategies to publicize and promote available on-demand WAV services to disability communities.

3. Applicants should provide alternative means to smartphones and other digital tools to access on-demand WAV services. Describe how on-demand WAV services will be available to individuals who do not have a smartphone, internet, or who need additional assistance in requesting the service.

4. Describe the contingency plan to avoid service disruption due to staffing, mechanical, or technical problems.

Section D: Budget Justification (Up to 15 points)

Describe the assumptions for developing the budget for the proposed project included in Part III of the application. All costs must be broken down, and a detailed description for how you determined each cost must be provided. The total project net cost calculated should be the net of operating revenues (i.e., operating cost - farebox revenue collected = net cost). Please address the following evaluation criteria:

1. Assumptions used to prepare the budget, such as quantity and level of service, basis for costs, inflation rate and prior experience. Include maintenance and repair costs, cost of fuel, casualty and liability insurance, and other direct costs; in-direct costs are ineligible.

2. Identify all sources and amounts of operating revenue, including farebox revenue where applicable and revenue from local, state, and/or federal discretionary and/or formula grants that are proposed to be used to fund the proposed project.

3. Identify the total amount of federal funds requested from the specific Access for All Program and discuss the eligibility of the proposed expenditures.

PART III. CERTIFICATIONS

All applicants must certify their ability and willingness to comply with the following requirements. These certifications will not be scored but are required for any organization receiving Access for All program funds.

Safety and Due Diligence Certifications

1. Certify that the Access Provider's WAV drivers have completed WAV driver training, including sensitivity training and passenger assistance techniques, within the past three years or will receive such training prior to receiving an award under this program. Include, if available, a report of WAV driver training programs used and number of WAV drivers that completed the training that quarter.

2. Certify that all WAVs operating on an access provider's platform have been inspected and approved to conform with the ADA Accessibility Specifications for Transportation Vehicles within the past year or will receive such inspection and approval prior to receiving an award under this program.

3. Background checks: Carriers must perform background checks that meet or exceed what is required of TNCs under the TNC Applications Form. (available at https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/licensing/transportation_network_companies/basicinformationfortncs.pdf)

4. Insurance: Carriers must have levels of insurance equivalent to or higher than to what is required of charter-party carriers under General Order 115. (available at:

https://www.cpuc.ca.gov/proceedings-and-rulemaking/cpuc-general-orders)

5. Controlled substance and alcohol testing: Carriers must be enrolled in a controlled substance and alcohol testing program.

6. Secretary of State registration: Carriers must have their articles of incorporation filed with the Secretary of State.

7. Motor Carrier Profile with California Highway Patrol (CHP): Carriers must complete the CHP 362 Motor Carrier Profile and obtain a CA Number from the CHP28.

Civil Rights Certification

All applicants must **attach a Civil Right Certification Letter** describing any lawsuits or complaints against your agency or organization within the last 12 months alleging discrimination on the basis of race, color, creed, national origin, sex, age or disability. The summary of lawsuits should include the date of complaint, lawsuit received and/or acted on, description status or outcome, corrective action taken, and date of final resolution. If no lawsuits or complaints were received or acted on, the letter should indicate that, “There were no lawsuits or complaints received or acted on in the last 12 months relating to Title VI or other relevant Civil Rights requirements.” This letter should also discuss if your agency or organization has a Title VI Plan. Discuss policies and procedures to make written and oral information available to clients and potential clients in languages other than English. This letter is to be printed on letterhead, signed by a duly authorized representative, and attached to the application.

Current Grant Subrecipient Compliance

All applicants must indicate whether or not they are a current Metro grant recipient/subrecipient. If yes, applicants must indicate whether or not they are in good standing or in compliance with any existing Agreement and/or Scope of Work.

Los Angeles County
Metropolitan Transportation Authority

Access for All (AFA) Grant Program

To expand access to Wheelchair Accessible Vehicle (WAV) demand-responsive transportation

FY 2023 Competitive Grant Application

Application Deadline: 5:00 pm on Monday, February 6, 2023

Metro

December 2022

Competitive Grant Application

Access for All (AFA) Grant Program

FY 2023 Solicitation for Proposals

Application Deadline: 5:00 PM on Monday, February 6, 2023

Application Package Contents

Part I. General Information

Part II. Project Implementation, Objectives and Benefits

Part III. Certifications

Application Instructions

Each applicant is allowed to submit one application. A minimum of 70 points per application score is required to be considered for funding. If the funding request is not fully awarded, applicant/agency may offer a reduced scope of work and associated budget or decline funding award.

Submit the application to Metro via email at **AccessForAll@metro.net** by the application deadline, **5:00 PM on Monday February 6, 2023.** The entire signed application and all attachments must be included in the electronic copies, preferably in a single pdf file.

Applications are to be complete and final. Amendments or supplements to the application will not be accepted after 5:00 pm on February 6, 2023. **Application packages with incomplete and/or missing information will not be evaluated.**

Review these application instructions, guidelines, and evaluation criteria carefully to ensure a complete and competitive application that sufficiently address each of the required and applicable components.

Your attendance at a Workshop for Potential Applicants, to be organized by Metro, tentatively scheduled for December 14, 2022, is highly encouraged. The workshop information can be found at https://www.metro.net/about/access-for-all.

The application is provided in fillable PDF form. All questions should be concisely answered in the space provided. Use additional pages as needed.

Technical Assistance

If you have any questions, contact Adam Stephenson at stephensona@metro.net, or Anne Flores at floresa@metro.net. For additional information and resources, refer to the program website at https://www.metro.net/about/access-for-all.

Part I
General Information

Name of Agency or Organization:
Project Title:
Project Decription (Brief):
Total Funding Request: $

Application Information

Address: _____

City/State/Zip: _____

Contact Person (Name and Title): _____

E-mail of Contact Person: _____

Phone (Area code + Number): _____

Funding Category (Select only one)

Capital Operating

Applicant Eligibility (Select only one)

Permitted Transportation Carrier

Permit No._____

Non-Permitted Transportation Carrier

Documents Attached:

Background Checks
Insurance
Controlled Substance and Alcohol Testing
Secretary of State Registration
Motor Carrier Profile with CHP

TNC that Meets Requirements

Attestation Attached

AUTHORIZATION

I, _____, am the person duly authorized to sign this this application and associated certifications on behalf of my agency/organization. I also acknowledge that the information in this application package is a public record. To the best of my knowledge and belief, all data in this application is true and correct. My agency/organization will comply with applicable Certifications, Metro Funding Agreement, and Metro requirements if financial assistance is awarded.

_____ _____

Signature of Authorized Representative Date

_____ _____

Title of Authorized Representative Name of Agency/Organization

Part I
General Information (continued)

Description of Applicant Agency/Organization's Operations

(Follow and address all application guidelines and evaluation criteria, and include all attachments, as detailed in the FY 2023 Access for All Solicitation for Proposals).

A map or brochure showing the existing or proposed service area of your agency or organization, as well as any proposed expansion requested to be funded (if applicable), is attached.

The map identifies service boundaries and zip codes.

Part I
General Information (continued)

Description of Applicant Agency/Organization's Operations (continued)

Part I
General Information (continued)

Description of Applicant Agency/Organization's Operations (continued)

Part I
General Information (continued)

Description of the Proposed Project

(Follow and address all application guidelines and evaluation criteria as detailed in the FY 2023 Access for All Solicitation for Proposals).

Part I
General Information (continued)

Description of the Proposed Project (continued)

Part I
General Information (continued)

Description of the Proposed Project (continued)

Part II - Project Implementation, Objectives and Benefits
Section A

Part II consists of four sections (A-D). Metro will evaluate each application solely on the information provided in these sections. The weight of each section is indicated, and cumulatively total 100 possible points. Ensure that the narrative responses are clear, concise, complete and accurate and specifically address the evaluation criteria provided as guidance for each section. All questions should be answered in the space provided. Use additional pages as needed.

A. Project Readiness and Technical Capacity (Up To 15 Points)

(Follow and address all application guidelines and evaluation criteria as detailed in the FY 2023 Access for All Solicitation for Proposals).

Part II - Project Implementation, Objectives and Benefits
Section A (continued)

A. Project Readiness and Technical Capacity (continued)

Part II - Project Implementation, Objectives and Benefits
Section B

B. Project Implementation Plan (Up To 35 Points)

(Follow and address all application guidelines and evaluation criteria as detailed in the FY 2023 Access for All Solicitation for Proposals).

Part II - Project Implementation, Objectives and Benefits
Section B (continued)

B. Project Implementation Plan (continued)

Part II - Project Implementation, Objectives and Benefits
Section B (continued)

B. Project Implementation Plan (continued)

Part II - Project Implementation, Objectives and Benefits
Section B (continued)

B. Project Implementation Plan (continued)

Part II - Project Implementation, Objectives and Benefits
Section B (continued)

B. Project Implementation Plan (continued)

Part II - Project Implementation, Objectives and Benefits
Section C

C. Customer Experience and Program Outreach (Up To 35 Points)

(Follow and address all application guidelines and evaluation criteria as detailed in the FY 2023 Access for All Solicitation for Proposals).

Part II - Project Implementation, Objectives and Benefits
Section C (continued)

C. Customer Experience and Program Outreach (continued)

Part II - Project Implementation, Objectives and Benefits
Section C (continued)

C. Customer Experience and Program Outreach (continued)

Part II - Project Implementation, Objectives and Benefits
Section C (continued)

C. Customer Experience and Program Outreach (continued)

Part II - Project Implementation, Objectives and Benefits
Section C (continued)

C. Customer Experience and Program Outreach (continued)

Part II - Project Implementation, Objectives and Benefits
Section D

D. Budget Justification (Up To 15 Points)

(Follow and address all application guidelines and evaluation criteria as detailed in the FY 2023 Access for All Solicitation for Proposals).

Part II - Project Implementation, Objectives and Benefits
Section D (continued)

D. Budget Justification (continued)

Part III - Certifications

Safety and Due Diligence Certifications

All applicants must certify their ability and willingness to comply with the following requirements. Check the box next to each requirement and sign the certification below, to confirm your agreement to comply. These certifications will not be scored but are required for any organization receiving Access for All program funds.

(check) 1. Certify that the Access Provider's WAV drivers have completed WAV driver training, including sensitivity training and passenger assistance techniques, within the past three years or will receive such training prior to receiving an award under this program. Include, if available, a report of WAV driver training programs used and number of WAV drivers that completed the training that quarter.

2. Certify that all WAVs operating on an access provider's platform have been inspected and approved to conform with the ADA Accessibility Specifications for Transportation Vehicles within the past year or will receive such inspection and approval prior to receiving an award under this program.

3. Background checks: Carriers must perform background checks that meet or exceed what is required of TNCs under the TNC Applications Form. (available at https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/licensing/transportation_network_companies/basicinformationfortncs.pdf)

4. Insurance: Carriers must have levels of insurance equivalent to or higher than to what is required of charter-party carriers under General Order 115. (available at: https://www.cpuc.ca.gov/proceedings-and-rulemaking/cpuc-general-orders)

5. Controlled substance and alcohol testing: Carriers must be enrolled in a controlled substance and alcohol testing program.

6. Secretary of State registration: Carriers must have their articles of incorporation filed with the Secretary of State.

7. Motor Carrier Profile with California Highway Patrol (CHP): Carriers must complete the CHP 362 Motor Carrier Profile and obtain a CA Number from the CHP28.

Certifying Representative

Name (print): _____

Title (print): _____

Signature: _____ Date: _____

Part III - Certifications *(continued)*

Civil Rights Certification

All applicants must **attach a Civil Right Certification Letter** describing any lawsuits or complaints against your agency or organization within the last 12 months alleging discrimination on the basis of race, color, creed, national origin, sex, age or disability. The summary of lawsuits should include the date of complaint, lawsuit received and/or acted on, description status or outcome, corrective action taken, and date of final resolution.

If **NO** lawsuits or complaints were received or acted on in the last 12 months relating to Title VI or other relevant Civil Rights requirements, please include the following statement in the letter:

"THERE WERE NO LAWSUITS OR COMPLAINTS RECEIVED OR ACTED ON IN THE LAST 12 MONTHS RELATING TO TITLE VI OR OTHER RELEVANT CIVIL RIGHTS REQUIREMENTS."

This letter should also discuss if your agency or organization has a Title VI Plan. Discuss policies and procedures to make written and oral information available to clients and potential clients in languages other than English. This letter is to be printed on letterhead, signed by a duly authorized representative, and attached to the application.

Check Here if a Civil Rights Certification Letter is Attached

Current Grant Subrecipient Compliance

If you are a current grant subrecipient with Metro and are not compliant with all subrecipient grant program requirements, you may not be eligible to apply for grant funds.

	YES	NO
Does your agency/organization currently have an active capital and/or operating project funded through a Metro grant subrecipient program, or is currently reporting to Metro on a past capital project?		
If yes, is your agency/organization currently in compliance with its grant program funding agreement, scope of work, and/or Metro annual self-certification reporting?		

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Metro

Board Report

File #: 2022-0683, **File Type:** Agreement **Agenda Number:** 12.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: AUTHORIZATION FOR METRO SUPPORT SERVICES FOR METROLINK SCORE PHASE 1 PROGRAM

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer or her designee to:

A. PROCEED with property acquisition and negotiation related activities in support of the Chatsworth Station Improvements, El Monte Siding Extension, Marengo Siding Extension, and Burbank Junction Speed Improvements Metrolink SCORE Phase 1 Program capital projects within Los Angeles County (SCORE Projects);

B. EXECUTE funding agreements with SCRRA in the amount of $4,177,500 for the SCORE Projects; and,

C. NEGOTIATE AND EXECUTE all necessary agreements and/or amendments with SCRRA for Metro support associated with the SCORE Projects.

ISSUE

At request of the Southern California Regional Rail Authority (SCRRA), approval of the recommended actions will support the Southern California Optimized Rail Expansion Program (SCORE) Phase 1 Program by providing Real Estate, Design Review, Third Party Utility Coordination Support and Community Outreach Support.

BACKGROUND

Metro is a member of the Southern California Regional Rail Authority (SCRRA) Joint Powers Authority, which operates Metrolink commuter rail service in and through LA County. In September 2019, the Metro Board received a presentation on the Metrolink SCORE Program and approved a Board motion to “adopt as policy SUPPORT for the build-out of the Metrolink SCORE master plan to improve regional mobility, increase transit ridership, and reduce greenhouse gas emissions.”

SCORE Program

SCORE is SCRRA's $10 Billion capital program which invests in track, signal, grade crossing, station, and other capacity and safety improvements to meet the region's future passenger rail needs. When SCORE is implemented, anticipated in time for the 2028 Olympic and Paralympic Games, most Metrolink lines will have the capacity to operate 30-minute bi-directional service, a significant increase compared to current service levels. Additional SCORE benefits will include cleaner air and greenhouse gas reductions, more access to jobs, economic development and affordable housing, and seamless connections to other transportation services as described further in the Attachment A to this report.

Los Angeles County would see reduced traffic congestion and emissions on adjacent freeways, as Metrolink removes the equivalent of one lane of parallel freeway traffic during the peak hour in peak direction in some locations, with similar improvements in other counties served. Fewer vehicles on the road results in fewer accidents, reduced air pollution and emissions, and decreased energy consumption for the residents in Los Angeles County. The envisioned SCORE program is expected to reduce 7.4 million pounds of reactive organic gas emissions, 103.6 million pounds of oxides of nitrogen, 3.6 million pounds of atmospheric particulate matter that have a diameter less than 2.5 micrometers, and 4.0 million pounds of diesel particulate matter (black soot) between 2023 and 2078, and well beyond.

The Los Angeles Economic Development Corporation produced a study assessing the impact of the construction investment in the SCORE program. Through construction and service improvements, Los Angeles County residents can expect to see 45,700 new jobs and $9.801 billion in gross regional product by 2028. By 2050, there will be 704,900 new jobs and a collective total of $356 billion in economic activity. To date, SCRRA has received $2.3 Billion in committed funding, and most of the projects are in various stages of environmental clearance, design, and pre-construction activities. Of the committed funding to-date, Metro had a significant role in achieving total awarded funds. In partnership with the SCORE Program, Metro was successfully awarded $337.57 million by CalSTA in 2018 TIRCP grant funds toward the LINK Union Station Phase A project. Then in 2019, North Los Angeles County Transportation Coalition Board committed up to $113.8 million using Measure M subregional funds in order for Metro to successfully receive an additional $97.05 million by CalSTA in 2020 TIRCP grant funds for the Antelope Valley Line Capital Improvements consisting of Balboa Double Track, Canyon Siding Extension, Lancaster Terminal Improvements and Brighton to McKinley Double Track Improvements. It should be noted, Brighton to McKinley is Segment 1 of the Brighton to Roxford Double Track Improvements which is now in 90% final design. Attachment B shows the location of the 21 SCORE Phase 1 projects that SCRRA or the member agencies are currently advancing to a shovel-ready level.

DISCUSSION

Staff is requesting approval of the recommended actions that provide support services to SCRRA for four (4) of the 21 capital projects for the Metrolink SCORE Phase 1 program which include Chatsworth Station Improvements, El Monte Siding Extension, Marengo Siding Extension, and Burbank Junction Speed Improvements (i.e the SCORE Projects).

SCRRA is currently in final design process for Chatsworth Station Improvements, El Monte Siding Extension and Marengo Siding Extension projects. The Burbank Junction Speed Improvements project is starting construction which is entirely within the Metro owned right-of-way. On a parallel path, SCRRA is in the process of completing appraisals and preparing to extend offers for various parcels on the other projects. SCRRA requests that Metro provides various real estate services in support of property acquisition, including condemnation support, if needed. SCRRA also requests that Metro provide additional support services for design review, third party utility coordination support and communication outreach support on an as needed basis. See Attachment C for a list of representative Metro tasks and responsibilities in support of the SCORE Phase 1 Program.

Supporting Four SCORE Phase 1 Projects

Metro staff has worked closely with SCRRA staff to develop separate funding agreements for Chatsworth Station Improvements, El Monte Siding Extension, Marengo Siding Extension and Burbank Junction Speed Improvement projects which will identify roles and responsibilities, terms, and reimbursement to Metro for providing support services for the SCORE Phase 1 Program as summarized below.

Chatsworth Station Improvements
The Chatsworth Station Improvements Project will create a pedestrian underpass and make other pedestrian, signal, and track improvements at the Metrolink Chatsworth Station such track rehabilitation, signal upgrades, and removal of an existing pedestrian at-grade crossing. Representative Metro support functions may include design oversight and condemnation counsel support, plus property acquisition costs. Since this project is more than the CEO's $500,000 signature authority, board action will authorize the Chief Executive Officer to enter into a funding agreement with SCRRA in the amount of $3,160,391 for the Chatsworth Station Improvements Project.

Burbank Junction Speed Improvements
The Burbank Junction Speed Improvement Project will install higher-speed trackwork. A new crossover will be installed between the Ventura and Valley subdivisions to assist with passenger train and freight movement. Other improvements include reconfiguration and lengthening of tracks within the railroad right-of-way, allowing this key junction to service trains more efficiently, ultimately leading to more frequent and reliable service. This project funding agreement with SCRRA will be under the CEO's $500,000 limit for signature authority.

Marengo Siding Extension
The Marengo Siding Extension Project is along the San Bernardino line and will allow continuous movement of trains. The existing Marengo Siding will be lengthened by 3,300 feet towards Cal State Los Angeles. The work includes performing grading along the guideway, installing approximately 0.75 miles of track, installing a turnout, removing existing signals and installing new signals and segment of wall. This project funding agreement with SCRRA will be under the CEO's $500,000 limit for signature authority.

El Monte Station Improvements and Siding Extension
The El Monte Station Improvements and Siding Extension project consist of two main items of work. First are the pedestrian improvements at the station and the Tyler Avenue grade crossing and second is the lengthening of the existing siding by approximately 2,900 feet further east to the Peck Road bridge, allowing for more capacity, throughput, and reliability along the Metrolink San Bernardino Line. Additional work involves sidewalk improvements, emergency swing gates, pedestrian gates, warning signals, walkway delineators and signage. Existing track shall be shifted, and new track will need to be constructed to support the additional trackwork. This project funding agreement with SCRRA will be under the CEO's $500,000 limit for signature authority.

Other SCORE Phase 1 Program in Los Angeles County
The other SCORE Phase 1 capital projects will require separate funding agreements with specified roles and responsibilities for Metro and Metrolink under separate future board actions such as Link Union Station, Chatsworth ADA Improvements and the Antelope Valley Line Capital Improvements. It is important to note, the Antelope Valley Line Capital Improvements would provide the capacity required to allow commuter and intercity rail service to increase along the Antelope Valley Line to 30-minute bi-directional headways between Los Angeles Union Station and Santa Clarita Valley and up to 60 minute bi-directional headways to Lancaster Terminal by the year 2030.

DETERMINATION OF SAFETY IMPACT

The Metrolink SCORE Program will construct additional sidings, double track segments, pedestrian grade separated crossings, improved signal and communications infrastructure, and make quiet zone ready improvements to the at-grade crossings, all consistent with improved safety along the Metrolink commuter rail system. All improvements will be designed to the latest safety standards established by the FRA and other regulatory agencies.

FINANCIAL IMPACT

SCRRA was awarded a $875,708,000 Transit and Intercity Rail Capital Program (TIRCP) grant by CALSTA in April 2018 for the SCORE Program, including design and construction of these four capital projects. These Projects are eligible for funding and reimbursement of all Metro's support service costs under the 2018 TIRCP grant.

Subject to Metro Board approval, the SCRRA funding agreements will provide a mechanism for SCRRA to reimburse Metro costs in support of the Metrolink SCORE Program. Eligible Metro costs for reimbursement would include staff time, property acquisition related costs, and consultant support costs. SCRRA has received CTC allocations of 2018 TIRCP funds for SCORE Phase 1 project costs for the four projects identified within this report. Metro will track SCORE Phase 1 project costs via a new project number, advance any expenses required to support the Metrolink SCORE program, generate monthly invoices and obtain reimbursement by SCRRA, via the funding agreement terms.

EQUITY PLATFORM

The Metrolink SCORE program represents a 21st Century transportation system accessible to residents in each of the five counties, regardless of occupation or neighborhood. In Los Angeles County, the SCORE Phase 1 capital projects would directly improve quality of life in the Equity Focus Communities of Lancaster, Santa Clarita, San Fernando, Chatsworth, Burbank, Glendale, Los Angeles, Monterey Park, Alhambra, El Monte and Rosemead, which have or are located near a Metrolink system station.

It should be noted, all four SCORE Phase 1 capital projects that Metro will be supporting are within or adjacent to the Equity Focus Communities of Chatsworth, Burbank, Monterey Park, Alhambra, El Monte and Rosemead. These four capital projects collectively have operations on three of the seven Metrolink Rail Networks. Specifically, the Rail Networks for the capital projects that Metro is supporting under the SCORE Phase 1 program operate on the Ventura County Line, Antelope Valley Line, and San Bernardino Line. The median income by Line is $76,166 on the Ventura, $40,823 on the Antelope Valley and $60,913 on the San Bernardino according to a 2022 Metrolink Rider Survey. 39% of all current Metrolink riders report household incomes below $50,000. The average age of Metrolink riders in 2022 has increased to 51 years. The same data shows rider demographics at 38% Hispanic or Latino, 31% White, 17% Asian or Pacific Islander, 10% African American and 4% Other.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Metro membership in the new Agency supports Vision 2028 Strategic Plan goals 1, 2 and 3, as follows:

- Goal 1: Provide high-quality mobility options that enable people to spend less time traveling;
- Goal 2: Deliver outstanding trip experiences for all users of the transportation system;
- Goal 3: Enhance communities and lives through mobility and access to opportunity;

ALTERNATIVES CONSIDERED

The Board could choose to not provide support services to SCRRA, such as Real Estate services. This would not allow SCRRA to finalize acquisitions offers since Metro is the owners of the railroad corridor. In other cases, SCRRA would have more costly third party related expenses, and they would not have the benefit of the existing Metro utility agreements, experience and subject matter experts. Metro involvement is also required for project messaging and community outreach support using internal resources and connections only available to Metro. Since Metro involvement is required for these support functions, these Board actions will enable Metro staff and their consultants support teams to participate fully in the SCORE project delivery process and obtain reimbursement for Metro's efforts.

NEXT STEPS

Subject to Board approval of the staff recommendation, Metro and Metrolink will execute the funding agreement required for the Chatsworth Station Improvements, El Monte Siding Extension, Marengo Siding Extension, and Burbank Junction Speed Improvements Metrolink SCORE Phase 1 Program capital projects. This will enable Metro Real Estate to provide real estate related support services

necessary to acquire permanent and temporary rights required for the four SCORE Phase 1 projects. Services include but are not limited to valuation analysis, acquisitions and negotiations, condemnation coordination, and execution of real estate related transactional documents. Metro Program Management will engage in design plan review and Third-party coordination support. Metro Community outreach staff will support future community meetings and SCORE project groundbreaking activities as requested by SCRRA, which will occur as early as November 2022. Staff will return to the Board on other SCORE Phase 1 Program in Los Angeles County such as the Link Union Station, Chatsworth ADA Improvements, and Antelope Valley Line Capital Improvements.

ATTACHMENTS

Attachment A - SCORE Program Fact Sheet
Attachment B - SCORE Phase 1 Projects
Attachment C - Metro Tasks in Support of SCRRA SCORE Phase 1 Program

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Jeanet Owens, SEO, Program Management, (213) 418-3189

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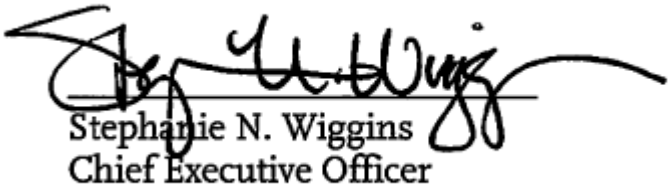


Stephanie N. Wiggins
Chief Executive Officer

METROLINK

SCORE

Southern California Optimized Rail Expansion

GET MORE WITH SCORE

What is SCORE?

Metrolink's Southern California Optimized Rail Expansion (SCORE) is a $10+ billion capital improvement program that includes grade crossing, station and signal improvements as well as track additions across five counties. As Metrolink's service area continues to grow from its current 18 million people, we must do more to serve Californians and meet the state's ambitious goals to reduce greenhouse gases and improve access to affordable housing and jobs. SCORE will accelerate Metrolink's goal towards a zero-emissions future and prepare for the millions of tourists, workers and residents expected to celebrate the 2028 Olympics and Paralympics. SCORE represents a 21st Century transportation system equitable to residents in each of the five counties, regardless of occupation or neighborhood.

With SCORE the region gets MORE.

- More safety improvements
- More seamless connections to other transit providers
- More peak and off-peak rail service
- More jobs and economic development
- More access to job centers and affordable housing
- Healthier air for all

Metrolink is the only public transit option for long distance travel throughout the entire region.

Metrolink carries passengers across all city and county lines, taking riders from city-to-city, county-to-county for a region-wide commute, and runs parallel to five of Southern California's major freeways.

- **SCORE investments advance access to transportation for those who need it most, including essential workers**
- **SCORE will reduce 51.7 million metric tons of carbon dioxide**
- **SCORE's construction plan alone will create over 113,100 good paying jobs – each on average nearly $64,000**
- **The cross-county and inter-city connections will promote active transportation and improve public health and safety**

2028 Goal:

With millions expected to visit California for the 2028 Olympics, the SCORE program is an ambitious plan to upgrade Metrolink's railway system. Metrolink is the third largest commuter rail system in the nation and has reduced 9.3 million car trips annually to eliminate 3.4 billion vehicle miles traveled from 2023-2078.

Metrolink is the answer to freeway gridlock and gives people a better quality of life, while protecting our environment. The benefits from SCORE will make the region increasingly attractive for the millions projected to arrive in SoCal in 2028 and, will contribute to the economic engine of the region for decades to come.

SCORE
Frequently Asked Questions (FAQs)

1. How is SCORE funded?

The majority of SCORE is unfunded. After local partners contributed over $595 million, Metrolink successfully leveraged those funds against state-level grant opportunities. In 2018, Metrolink was awarded an $876 million grant from the California Transit Intercity Rail Capital Program (TIRCP) for Phase One of SCORE. To date, Metrolink has raised approximately 23%, or $2.3 billion, of the $10 billion funding goal. Metrolink is now in the process of identifying and pursuing additional grant opportunities to reach the overall funding goal.

2. How are SCORE projects identified and prioritized?

In alignment with the State Rail Plan – a 20-year planning and implementation framework for California's rail network – Metrolink identified railroad improvements that would upgrade safety, enable more frequent service, and make existing service more reliable. Metrolink's planning team underwent a comprehensive analysis to identify and prioritize major bottlenecks and projects that greatly benefit the operations for multiple rail operators such as Metrolink, Amtrak, BNSF, UPRR and future High-Speed Rail.

3. What are the benefits to the community?

The projects would generate jobs and business opportunities, provide environmental benefits, and increase the frequency and the reliability of Metrolink service. Los Angeles County would see reduced traffic congestion and emissions on adjacent freeways, as Metrolink removes the equivalent of 1 lane of parallel freeway traffic during the peak hour in peak direction in some locations, with similar improvements in other counties served. Fewer vehicles on the road results in fewer accidents, reduced air pollution and emissions, and decreased energy consumption.

4. How will the SCORE Improvements Projects benefit riders?

Passengers will go to a train station and wait no more than 30 minutes for the next train in both directions. The Project improvements and updates would enable Metrolink to operate safe and reliable services, which means a better customer experience for passengers.

5. Are there any economic benefits to the area?

The Los Angeles Economic Development Corporation (LAEDC) produced a study assessing the impact of the construction investment in the SCORE program. Through construction and service improvements, Los Angeles County residents can expect to see 45,700 new jobs and $9.801 billion in gross regional product by 2028. By 2050, there will be 704,900 new jobs and a collective total of $356 billion in economic activity. SCORE is Metrolink's legacy initiative.

For more information about SCORE projects.

Please visit: metrolinktrains.com/score

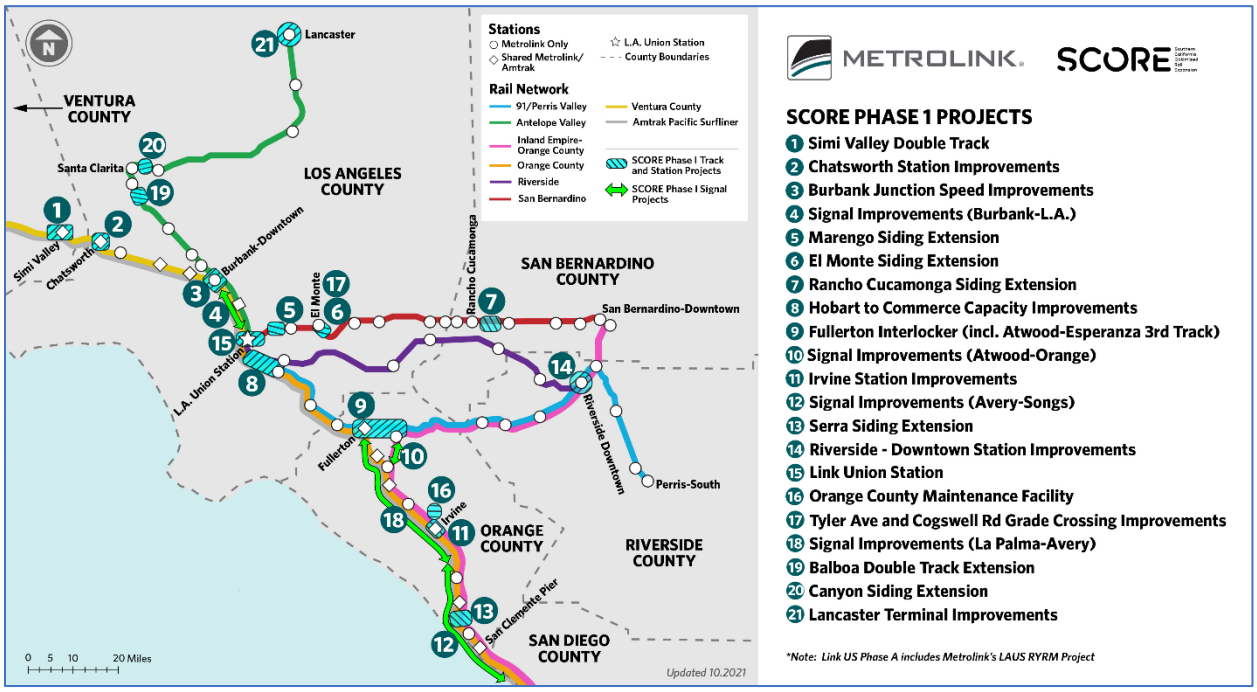
Contact: Jeanette Flores,
Assistant Director of Public Affairs,
SCORE at floresj@scrra.net

SCORE Southern California Optimized Rail Expansion

GET MORE WITH SCORE

Attachment B

Metrolink SCORE Phase 1 Projects



ATTACHMENT C

Metro Tasks and Responsibilities in Support of SCORE Program
(Phase 1 Projects)

Chatsworth Station Improvements
Burbank Junction Speed Improvements
Marengo Siding Extension
El Monte Station Improvement and Siding Extension
(Design (PS&E) Phase)

Projects Status:

The Projects are currently in the Design (PS&E) Phase.

SCRRA has completed CEQA Environmental Clearance for the Projects, and is currently undertaking NEPA Environmental Clearance, if and where applicable. The Environmental Phase for the Projects has completed.

SCRRA has completed the Preliminary Design (30% design level) for the Projects, and SCRRA is currently developing the Final Design (90% to 100% / Camera-ready design level) for the Projects. The Design Phase for the Projects is scheduled to continue through 2023.

Scope of LACMTA Services:

This scope of work is for Los Angeles County Metropolitan Transportation Authority (LACMTA) to provide support to the Projects, as set forth below:

1. Right-of-Way Acquisition Support

LACMTA shall provide supporting right-of-way acquisition services for the Projects, which includes support to SCRRA for acquisition of right-of-way, easements, and temporary construction easements. LACMTA's roles and responsibilities for the ROW Acquisition Work are as follows:

1. Review title reports and provide comments to SCRRA regarding required property conditions/title clearances, SCRRA to coordinate title clearances
2. Review and comment on property impact statements
3. Set Just Compensation
4. Review and approve offer packages
5. Review and approve administrative and litigation settlements
6. Execute escrow and transaction related documents
7. In the event condemnation is needed to acquire any Property Interests, obtain approval from LACMTA Board of Directors or delegee in connection with

Resolutions of Necessity for condemnation, amount of just compensation, and any other approvals needed as determined by LACMTA in its sole discretion

8. Engage outside legal counsel and experts, as needed in connection with condemnation proceedings

2. Design Review

LACMTA shall review the design plans for each of the remaining design levels for the Projects, provide written comments to SCRRA, and participate in comment resolution meetings. As part of this review process, LACMTA will review the Projects' cost estimates, milestones for the Projects, and consultant deliverables at each of the milestones. LACMTA will provide comments on the design plans within twenty-five (25) business days' of receipt of the Project design documents. The work product from this phase of design review work shall be PS&E documents for the procurement of the construction of each of the Projects.

3. Utility Coordination Support

LACMTA shall provide legal support services for the Projects where existing utilities are impacted by the Projects. This includes coordination with utility owners on possible relocations or protections as agreed upon in existing license agreements between LACMTA and utility owners.

4. Community Outreach Support

LACMTA shall provide community outreach support services for the Projects. At least one LACMTA community outreach representative would attend community outreach meetings for the Projects as scheduled and led by SCRRA (or SCRRA's Public Outreach consultant). SCRRA anticipates three (3) community meetings and one (1) public hearing meeting for each of the Projects, The LACMTA Public Outreach representative would coordinate with SCRRA's Community Relations Manager and SCRRA's Public Outreach consultant during the and Design Phase of the Projects, and will distribute SCRRA-provided public notices as needed through digital media, such as LACMTA's metro.net website and social media.

<u>Milestones and Deliverables:</u>

Expected completion of Design (PS&E) Phase: December 30, 2023

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0695, **File Type:** Project **Agenda Number:**

REVISED
PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: TRANSPORTATION COMMUNICATION NETWORK ENVIRONMENTAL IMPACT REPORT

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING the Transportation Communication Network (TCN) Project;

B. CERTIFYING, in accordance with the California Environmental Quality Act (CEQA), the Final Environmental Impact Report (Final EIR) for the Transportation Communication Network, if the Board concludes that it satisfies the requirements of CEQA and reflects the Board's independent judgment following CEQA Guidelines, section 15090;

C. ADOPTING, in accordance with CEQA, the:
1. Findings of Fact;
2. Mitigation Monitoring and Reporting Program; and

D. AUTHORIZING the Chief Executive Officer to file a Notice of Determination with the Los Angeles County Clerk and the State of California Clearinghouse.

ISSUE

The Metro Transportation Communication Network (TCN) Project proposes a network of transportation communication digital displays that will promote efficient roadways, increase public transit ridership, improve public safety, and provide revenue generation for transportation programs. Metro, as the Lead Agency, prepared and circulated for public comment a Draft Environmental Impact Report (Draft EIR). The public comment period closed on October 24, 2022. The Final EIR, Findings of Fact and Mitigation Monitoring and Reporting program are located at www.metro.net/tcn <http://www.metro.net/tcn>. Staff is recommending the Board adopt and certify the Final EIR.

BACKGROUND

Real Estate, ITS, Communications and Metro's partner, Allvision, have been collaborating to

implement a network of transportation communication digital displays that will promote efficient roadways, increase public transit ridership, improve public safety and provide revenue generation for transportation programs. The desired outcome is to create a comprehensive communication network. The locations of the proposed TCN Structures include 34 freeway-facing and 22 non-freeway-facing locations within the City of Los Angeles (City) (see Attachment A).

Pursuant to Board Action (File# 2021-0062) on March 24, 2021, Metro staff and County Counsel negotiated a Memorandum of Agreement (MOA) with the City for the Metro TCN on Metro property within the City of Los Angeles. The City Council approved the MOA on December 16, 2021, and it was executed on January 12, 2022.

Metro is the Lead Agency for CEQA, and the City is a Responsible Agency. On April 18, 2022, Metro issued a Notice of Preparation (NOP) to commence the formal process for the EIR. The Draft EIR was circulated for public comment from September 9, 2022, to October 24, 2022.

DISCUSSION

California Environmental Quality Act (CEQA)

As the Lead Agency, Metro prepared the "Transportation Communication Network" EIR in accordance with CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines.

Project Analyzed Under the EIR

Metro proposes to implement the TCN Program which would provide a network of TCN Structures that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro's communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City. Implementation of the Project will include the installation of up to 34 Freeway-Facing TCN Structures and 22 Non-Freeway Facing TCN Structures all on Metro-owned property (see Attachment A). The total maximum amount of digital signage associated with the TCN Structures would be up to approximately 55,000 square feet.

As part of the TCN Program, a take-down component would be implemented including the removal of at least 110,000 square feet (2 to 1 square footage take-down ratio) of existing off-premises static displays. Signage to be removed would include, at a minimum, approximately 200 off-premises static displays located within the City of Los Angeles.

As part of the Project, the City must amend the City's sign regulations in Chapter I of the Los Angeles Municipal Code (LAMC) to create a mechanism to review and approve the TCN Structures Zoning Ordinance and associated static display take-down program.

The site locations for the TCN Structures are located within property owned and operated by Metro along freeways and major streets, within the City. Most of the Site Locations are located on vacant land with limited vegetation and are generally inaccessible to the public. The Site locations for the TCN Structures are generally designated and zoned as commercial, public facilities, and

manufacturing uses. None of the site locations are zoned for residential use.

Project Objectives

In accordance with Section 15124(b) of the CEQA Guidelines, the following objectives were identified in the EIR:

- Incorporate features for real-time data collection to aid in traffic signal timing, micro-transit data, and Metro vanpool on-demand services.
- Geographically space the multifunctional TCN Structures to expand Metro's transportation public messaging network and ability to broadcast information to commuters in a variety of ways to further increase Metro's visibility and accessibility for all commuters.
- Improve public safety by notifying the public of roadway improvements, road hazards, Earthquake Early Warning System notifications, Amber Alerts, and emergency situations.
- Maximize efficiency of the congested road network by promoting public awareness of travel alternatives based on geography and time constraints such as alternative routes, carpooling alternatives, and public transportation opportunities.
- Maximize advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that would further Goal 2 of the Metro Vision 2028 Strategic Plan, by creating a funding source for programs to enhance experiences for all Metro users such as improving security and increasing customer satisfaction.
- Implement Goal 4 of the Metro Vision 2028 Strategic Plan by creating an avenue for regional collaboration and comprehensive, timely, and real-time information sharing across government agencies to regionally improve traffic and transportation systems.
- Reduce overall square footage of existing static off-premise displays within the City of Los Angeles.
- Locate the TCN Structures at sites, elevations, and angles that would not increase distraction to motorists while still efficiently relaying information to commuters.

Notice of Preparation, Scoping Meeting, and AB52 Consultation

On April 18, 2022, a Notice of Preparation (NOP) was published, which included an Initial Study determining that a Draft EIR would be needed to evaluate potentially significant impacts to: Aesthetics, Air Quality, Biological Resources, Cultural and Historic Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems.
Two virtual scoping meetings were held on Thursday, May 19, 2022, at 5:00 pm and Saturday, May 21, 2022, at 10:00 am. Following the scoping sessions, the scoping comment period was open for 45 days (versus the minimum required 30 days). In addition to the required public agency notifications, public notifications were placed in the Los Angeles Times, a digital/internet marketing effort was

focused on areas around each location, and 17,247 postcards, which included the scoping meeting information, were mailed to all properties within a 750-foot radius around each location. During the scoping period, LACMTA received six (6) comments/responses from the public and government agencies. The NOP and details of the scoping meetings can be found at the project website: www.metro.net/TCN <http://www.metro.net/TCN>
As part of the CEQA process, Assembly Bill 52 (2014) requires Lead Agencies to follow certain procedures to consult with Native American tribes that are traditionally and culturally affiliated with the area of a proposed project to identify and address potential adverse impacts to tribal cultural resources. Pursuant to AB 52, staff initiated the tribal consultation process in May 2022 and continued through October 2022Metro received comments from the Gabrielino Band of Mission Indians - Kizh Nation, the Gabrielino Tongva Indians of California, the Gabrielino Tongva Tribe, and the Santa Ynez Band of Chumash Indians. Consultations were held via meetings and correspondence in July and August 2022 and continued through the Draft EIR public comment period. Metro completed the consultation process with preparation of responses to comments on the Draft EIR.

Notice of Availability of the Draft EIR and Public Comment

The Notice of Availability (NOA) of the Draft EIR was circulated for public comment from September 9, 2022, to October 24, 2022. The NOA was mailed to 17,247 mailboxes consisting of residents, property owners, and business owners within a 750-foot radius around each location. Additionally, a legal ad containing the NOA was placed in the Los Angeles Times on September 9, 2022.

As the lead agency, Metro conducted virtual community meetings on October 6 and 7, 2022, to accept public comments on the Draft EIR. In general, comments received during the Draft EIR public comment period and at the community meetings consisted of concerns regarding the proposed takedown ratio of existing static displays to installation of digital displays, traffic safety, advertising revenue generation from the proposed displays, advertising content of the proposed digital displays, and conflicts with the City's existing sign ordinance.

In addressing the takedown ratio, the EIR allows for a takedown ratio of at least 2 to 1 square feet of static displays, however, the final takedown ratio will be determined as part of the City's consideration of the ordinance. About traffic safety, the Federal Highway Administration conducted an independent investigation (*Driver Visual Behavior in the Presence of Commercial Electronic Variable Message Signs (CEVMS), 2012)* on the effect of digital displays on drivers. In summary, the study found that drivers still dedicated their visual attention to driving, with minimal fixations on CEVMS, billboards, and/or other objects. In response to advertising revenue from the TCN Structures, revenue would be used to fund new and expanded transportation programs. Regarding advertising content, the Project would adhere to Metro's System Advertising Content Restrictions which prohibits advertisement of alcohol, smoking, cannabis, as well as any content containing violence, obscenities, and other related subject matters. Further, as part of Project the City would adopt an ordinance which would specifically allow for the 56 TCN Structures, and therefore, would not conflict with the existing sign ordinance.

Several comments in support of the project were also received from members of the public, specifically supporting the reduction and replacement of static displays with digital displays to generate revenue for public transportation improvements.

Agency comment letters on the Draft EIR were received from four (4) agencies including California Department of Transportation (Caltrans), South Coast Air Quality Management District, Los Angeles County Fire, and Los Angeles County Sheriff's Department. Specifically, comments from Caltrans acknowledged that the TCN Structures would be compliant with all Caltrans regulations regarding the placement of outdoor advertisement displays visible from California highways.

The community outreach program conducted a thorough and meaningful outreach to City of Los Angeles residents and businesses. This ensured that residents, business owners, neighborhood groups, and others had adequate and comprehensive opportunities to understand the program, ask questions about it, and provide their feedback. Key stakeholder groups such as neighborhood councils, business organizations, community-based organizations, transportation organizations and the Los Angeles/Orange Counties Building and Construction Trades Council.

In addition to soliciting feedback virtually through surveys, Allvision engaged in a digital outreach effort that utilized social media, search, and geo-fenced targeting that provided opportunities for feedback and ensured awareness of virtual and in-person community meetings. An additional email was released the last week in September reminding the public of the comment period.

Draft EIR Analysis

Below is a list of some of the key determinations that were included in the Draft EIR analysis:

- *Impacts Considered Less than Significant*: The Initial Study determined that the Project had the potential to result in significant impacts to a number of CEQA resource areas. However, upon further examination, the Draft EIR found that the Project would result in a "less than significant" impact with no mitigation required for: Air Quality, Energy, Geology and Soils, Greenhouse Gas Emissions, Transportation, and Electric Power.

- *Impacts Considered Less than Significant with Mitigation Measures Incorporated*: The Draft EIR found that impacts to Biological Resources, Archaeological Resources, Paleontological Resources, Hazards and Hazardous Materials, Noise, and Tribal Cultural Resources would be reduced to a "Less Than Significant Level" with mitigation measures incorporated. With the mitigation measures identified in the EIR, the Project was found to be less than significant in these CEQA resource areas.

- *Impacts Considered Significant and Unavoidable:* The Draft EIR found that the Project would have "Significant and Unavoidable" environmental impacts related to a subset of the TCN Structures for the following resource areas: Aesthetics, Historical Resources, and Land Use and Planning. Specifically, the Project would be inconsistent with goals and policies of the Central City North, Central City, and North Hollywood-Valley Village Community Plans regarding historic resources and visual impacts at four of the Site Locations (Site Locations NFF-2, NFF-3, NFF-16, and NFF-21) and would result in significant impacts associated with views, visual character and setting of historical resources. Additionally, the Project would also be inconsistent with Palms - Mar Vista - Del Rey Community Plan policies regarding placement of off-site premises signs within the coastal area (relative to Site Locations FF 29 and FF 30). Review of potential measures to reduce the Project's significant impacts, such as modification to the size and height of the

signs was considered. However, such modifications would not materially reduce these impacts. Rather, the primary way to substantially reduce these impacts would be to eliminate or relocate the subset of the Site Locations that are associated with these significant and unavoidable impacts. The EIR included Alternatives as part of the Project that would eliminate the significant and unavoidable impacts.

Alternatives

The EIR analyzed the following three alternatives:

- Alternative 1, No Project Alternative: Alternative 1 assumes that the Project would not be approved, no new permanent development would occur within the Site Locations, and the existing environment would be maintained. No existing static signs would be removed. Thus, the physical conditions of the Site Locations would generally remain as they are today. No new construction would occur. Further, no revenue would be generated from the Project to fund new and expanded transportation programs.

- Alternative 2, Elimination of Impacts Relating to Historical Resources: Alternative 2 would eliminate TCN Structures at Site Locations NFF-2, NFF-3, NFF-16, and NFF-21 proposed by the Project. The remaining 52 TCN Structures would be proposed under this alternative. As with the Project, Alternative 2 would provide for an overall reduction in static displays (at least a 2 to 1 square footage take-down ratio), throughout the City. Impacts to historical resources and the related aesthetic and land use impacts associated with Site Locations NFF-2, NFF-3, NFF-16, and NFF-21 would be eliminated. As with the proposed Project, under Alternative 2, the City would establish a Zoning Ordinance that would provide a mechanism to review and approve the TCN Structures citywide.

- Alternative 3, Elimination of All Project Significant and Unavoidable Impacts: Alternative 3 assumes that the Project would eliminate Site Locations NFF-2, NFF-3, NFF-16, and NFF-21, as well as eliminate or relocate FF-29 and FF-30 outside of the coastal area of the Palms-Mar Vista-Del Rey Community Plan. The remaining 50 TCN Structures would be proposed under this alternative. As with the Project, Alternative 3 would provide for an overall reduction in static displays (at least a 2 to 1 square footage take-down ratio), throughout the City. Impacts to aesthetics, historic resources, and land use would be eliminated. As with the Project, under Alternative 3 the City would establish a Zoning Ordinance that would provide a mechanism to review and approve the TCN Structures citywide.

As part of its consideration of the CEQA Findings of Fact for the TCN Program, the Board will determine whether the Alternatives are feasible, which will include an evaluation of whether and how each Alternative would fulfill the Project Objectives described above. The No Project Alternative would not fulfill any of the Project Objectives. Alternatives 2 and 3 would fulfill some of the Project Objectives, but not as well as the Project. Alternatives 2 and 3 would not fulfill the key Project Objective to maximize advertising revenue to fund new and expanded transportation programs.

City of Los Angeles Ordinance

The TCN Program is contingent on the adoption of a Zoning Ordinance by the City. The proposed Zoning Ordinance would amend the City's sign regulations in Chapter I of the LAMC to authorize the TCN Structures. On June 28, 2022, the City Council passed the motion to draft the ordinance.

The proposed Zoning Ordinance would create a mechanism for the review and approval of the TCN Structures; would not authorize new signage other than the TCN Structures; and would address the time, manner, and place aspects of the TCN Program, including the allowable locations, size and height limitations, urban design requirements, and applicable community benefits including take-down requirements for the removal of existing static off-premises signs.

The proposed Zoning Ordinance would not otherwise change the existing regulations for signs, including off-site and digital signage, in the City. Based on the above, the anticipated development from the Zoning Ordinance would be limited to the 56 TCN Structures as described above and in the EIR, Chapter 3, as well as the take-down of approximately 200 static displays located within the City.

The adoption of a Zoning Ordinance includes the drafting of said ordinance, a public hearing, review and recommendation by the City's Planning Commission, and consideration and adoption by the City Council.

FINANCIAL IMPACT

The TCN will generate additional revenue for public transportation purposes. No capital expenditure by Metro is required. Metro's partner, Allvision, is responsible for the upfront costs of the CEQA process, which will then be reimbursed from the future revenue stream, if the network is approved.

Until the Board and the City take final action on the project, the precise number of structures is not certain. Rough order of magnitude revenue estimates is between $300-$500 million over the initial 20 -year term.

Impact to Budget

There is no impact to the Budget.

EQUITY PLATFORM

Communities have struggled with the blight of static billboards, which more often plague underserved communities and communities of color. The TCN will help reduce blight and readjust this imbalance by removing approximately 200 static sign faces located on 82 Metro-owned properties within the City. The 82 locations that will be part of the take down program include 47 properties (or 57% of all take downs) within Equity Focus Communities (EFCs). Whereas only 17 (30%) of the 56 proposed TCN Structure locations are in EFCs.

The MOA stipulates that the use of funds by the City be directed toward improving transportation, including projects that are consistent with Metro's Vision 2028 Plan and complement existing City goals. The MOA also notes that projects may include those that promote pedestrian and cyclist safety in the general vicinity of transit stops and that benefit bus riders in the City, with a focus on low-

income, persons of color in Metro's defined EFCs. Bus ridership in Los Angeles is disproportionately low-income (median income of under $18,000), Latinx, Black, or Indigenous, and essential service workers.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The TCN will yield enhanced communication and support, as well as revenues, resulting in:

- Goal 1: High quality mobility options for all
- Goal 3: Enhancing communities and lives
- Goal 4: Transform LA County through collaboration and leadership.

NEXT STEPS

If the Metro board certifies the EIR, the City will consider the adoption of an ordinance that would amend the LAMC to authorize the TCN Structures. As part of that process, Metro in partnership with the City will continue community outreach on the proposed ordinance.

The outdoor advertising companies will be engaged to discuss potential additional takedowns within the City.

ATTACHMENTS

Attachment A - Locations
Attachment B - Findings of Fact
Attachment C - Mitigation Monitoring and Reporting Program
Attachment D - Notice of Determination

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Chief Executive Officer

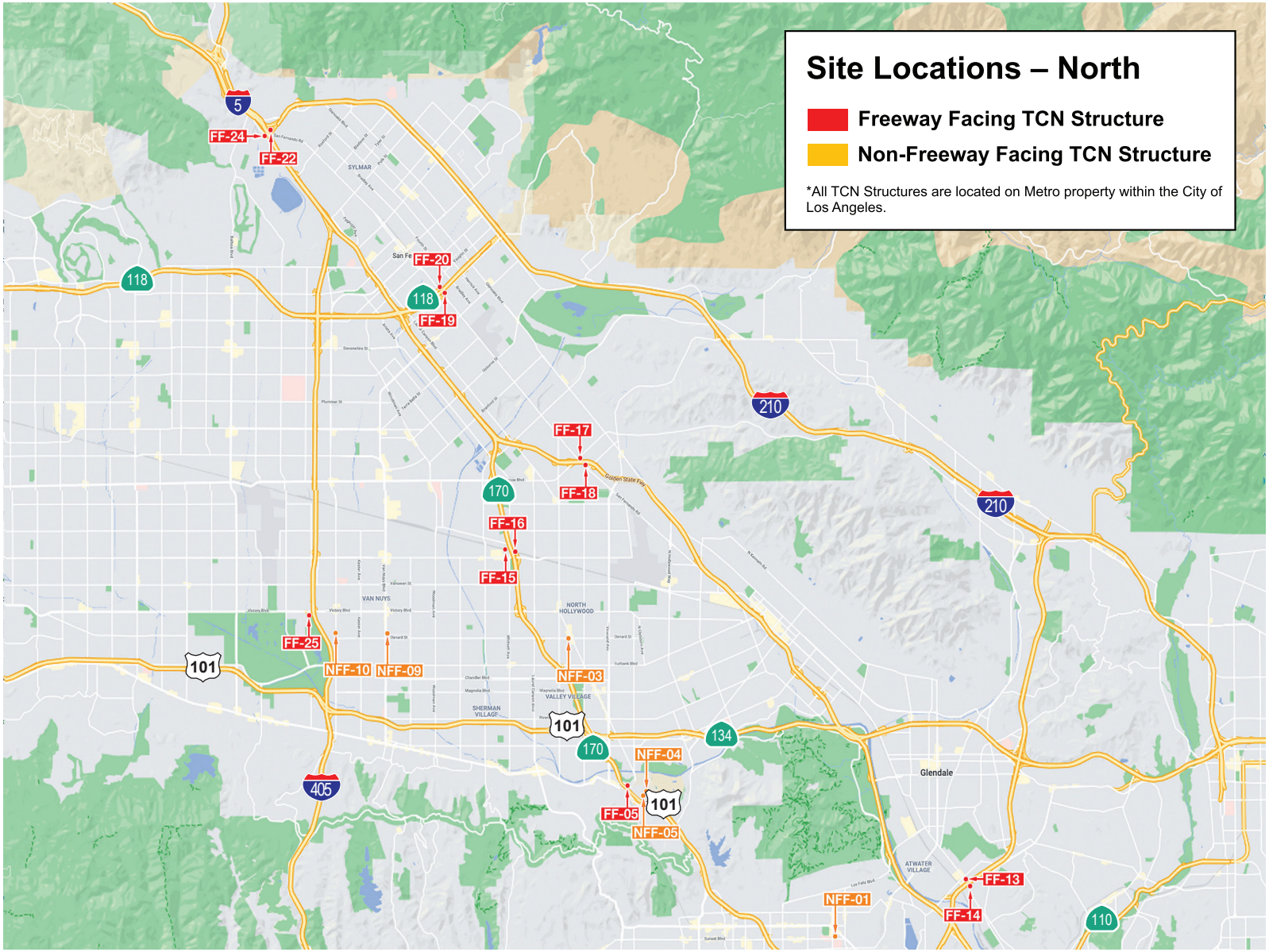

Figure 1

Regional Project Location Map – North

Source: ALLVISION, 2022.

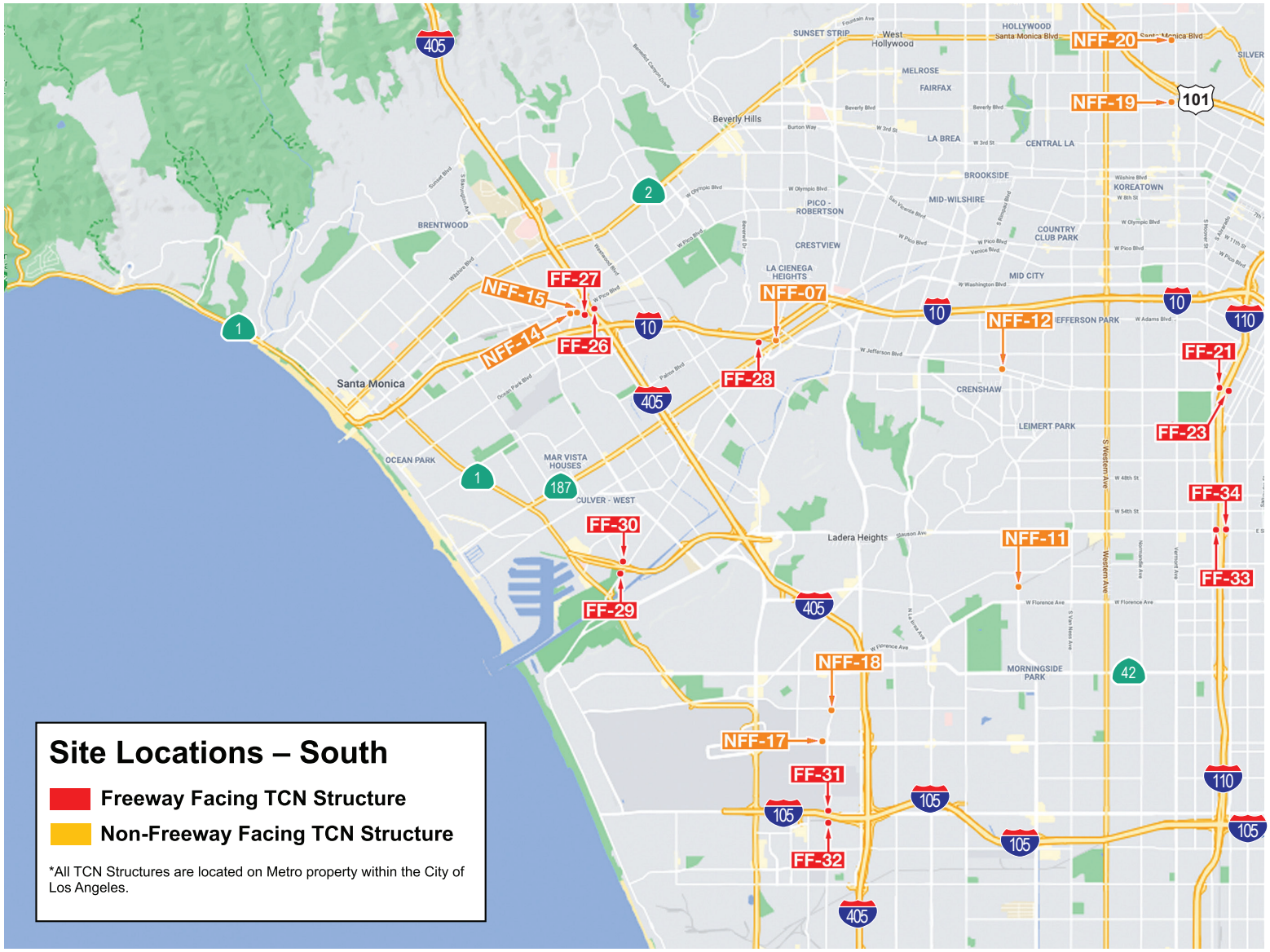

Figure 2

Regional Project Location Map – South

Source: ALLVISION, 2022.

Figure 3

Regional Project Location Map – Downtown

Source: ALLVISION, 2022.

REVISED
ATTACHMENT B

Findings of Fact

Pursuant to CEQA Guidelines Section 15091 and Public Resources Code Section 21081

Transportation Communication Network Program

November 2022

Metro

TABLE OF CONTENTS

ABBREVIATIONS/ACRONYMS

AB ..... Assembly Bill
ACM ..... Asbestos-containing material
AQMP ..... Air Quality Management Plan
BMPs ..... Best Management Practices
BSA..... Biological Study Area
CAAP ..... Climate Action and Adaptation Plan
CAFE ..... Corporate Average Fuel Economy
CALGreen ..... California Green Building Standards
Caltrans..... California Department of Transportation
CARB ..... California Air Resources Board
CCR ..... California Code of Regulations
CDFW ..... California Department of Fish and Wildlife
CEQA..... California Environmental Quality Act
City..... City of Los Angeles
CO..... Carbon Monoxide
COC ..... Chemicals of Concern
County..... Los Angeles County
EIR ..... Environmental Impact Report
ESA..... Environmentally Sensitive Area
FF..... Freeway-Facing
FTA ..... Federal Transit Administration
General Plan ..... City of Los Angeles General Plan
GHG..... Greenhouse Gases
HASP ..... Health and Safety Plan
LADBS ..... Los Angeles Department of Building and Safety
LADOT ..... Los Angeles Department of Transportation
LADWP ..... Los Angeles Department of Water and Power
LAMC ..... Los Angeles Municipal Code
LBP ..... Lead-Based Paint
LED ..... Light-Emitting Diode
Metro ..... Los Angeles County Metropolitan Transportation Authority
Mobility Plan..... Mobility Plan 2035
MRDC ..... Metro Rail Design Criteria
MMRP ..... Mitigation Monitoring and Reporting Program
NAHC..... Native American Heritage Commission
OHP ..... Office of Historic Preservation
PAHs..... Polynuclear Aromatic Hydrocarbons
PCE..... Percholroethylene
PM2.5..... Fine Particulate Matter ≤ 2.5 Microns
PM10..... Particulate Matter ≤ 10 Microns
PPE..... Personal Protective Equipment

ppm ..... Parts Per Million
PQS ..... Professional Qualifications Standards
PRC ..... Public Resources Code
RIITS..... Regional Integration of Intelligent Transportation Systems
RTP/SCS ..... Regional Transportation Plan/Sustainable Communities Strategy
RWQCBs ..... Regional Water Quality Control Boards
SB ..... Senate Bill
SCAG..... Southern California Association of Governments
SCAQMD ..... South Coast Air Quality Management District
SHPO..... State Historic Preservation Officer
SLs..... Screening Levels
SMP ..... Soil Management Plan
SOI..... Secretary of the Interior
State..... State of California
SWCA ..... SWCA Environmental Consultants
TAC..... Toxic Air Contaminant
TCE..... Tetrachloroethylene
TCN..... Transportation Communication Network
TCR MMP ..... Tribal Cultural Resource Mitigation and Monitoring Program
TPHd..... Total Petroleum Hydrocarbons as Diesel
TPHg..... Total Petroleum Hydrocarbons as Gasoline
TPHo..... Total Petroleum Hydrocarbons as Oil
U.S. ..... United States
USACE..... United States Army Corp of Engineers
USFWS ..... United States Fish and Wildlife Service
UST..... Underground Storage Tank
Vision Plan..... Metro 2028 Vision Plan
VMT ..... Vehicle Miles Traveled
VOC ..... Volatile Organic Compound
WEAP ..... Worker Environmental Awareness Program
WOS .....Waters of the State

1. INTRODUCTION

The Los Angeles County Metropolitan Transportation Authority (Metro) followed a prescribed process, in accordance with California Environmental Quality Act (CEQA) and the CEQA regulations, to identify the issues to be analyzed, including the solicitation of input from the public, stakeholders, elected officials, and other affected parties. Implementation of the proposed Transportation Communication Network (TCN) Program (Project or TCN Program) would result in significant unavoidable impacts related to aesthetics, cultural resources, and land use and planning, and no feasible mitigation measures were identified to mitigate these impacts. In accordance with CEQA, Metro, in adopting these Findings of Fact, also adopts a Mitigation Monitoring and Reporting Program (MMRP). Metro finds that the MMRP, which is included in Chapter IV. MMRP of the Final Environmental Impact Report (EIR) and is provided as a part of these findings as Attachment B to the [Month] Metro Board Report, meets the requirements of Public Resources Code (PRC) Section 21081.6 by providing for the implementation and monitoring of measures to mitigate potentially significant effects of the Project.

In accordance with the CEQA Guidelines, Metro adopts these findings as part of the approval of the Project. Pursuant to PRC Section 21082.1(c)(3) and CEQA Guidelines Section 15090, Metro certifies that the Final EIR:

1) Has been completed in compliance with the CEQA;

2) The Final EIR was presented to the Board of Directors and that the Board reviewed and considered the information contained in the Final EIR prior to approving the Project; and

3) The Final EIR reflects Metro's independent judgment and analysis.

2. ORGANIZATION

The Findings of Fact and Statement is comprised of the following sections after the Introduction:

Section 3. A brief description of the Project and its objectives

Section 4. Statutory requirements of the findings and a record of proceedings

Section 5. Significant impacts of the Project that cannot be mitigated to a less-than-significant level

Section 6. Potentially significant impacts of the Project that can be mitigated to a less-than-significant level

Section 7. Environmental impacts that are less than significant

Section 8. Environmental resources to which the Project would have no impact

Section 9. Potential cumulative impacts

Section 10. Alternatives analyzed in the evaluation of the Project and findings on mitigation measures

Section 11. Statement of Overriding Considerations

3. PROJECT DESCRIPTION AND OBJECTIVES

The Project would provide a network of structures with digital displays (TCN Structures) that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro's communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City of Los Angeles (City). The specific objectives of the project are:

- Incorporate features for real-time data collection to aid in traffic signal timing, micro-transit data, and Metro vanpool on-demand services.

- Geographically space the multifunctional TCN Structures to expand Metro's transportation public messaging network and ability to broadcast information to commuters in a variety of ways to further increase Metro's visibility and accessibility for all commuters.

- Improve public safety by notifying the public of roadway improvements, road hazards, Earthquake Early Warning System notifications, Amber Alerts, and emergency situations.

- Maximize efficiency of the congested road network by promoting public awareness of travel alternatives based on geography and time constraints such as alternative routes, carpooling alternatives, and public transportation opportunities.

- Maximize advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that would further Goal 2 of the Metro Vision 2028 Strategic Plan, by creating a funding source for programs to enhance experiences for all Metro users such as improving security and increasing customer satisfaction.

- Implement Goal 4 of the Metro Vision 2028 Strategic Plan by creating an avenue for regional collaboration and comprehensive, timely, and real-time information sharing across government agencies to regionally improve traffic and transportation systems.

- Reduce overall square footage of existing static off-premise displays within the City of Los Angeles.

- Locate the TCN Structures at sites, elevations, and angles that would not increase distraction to motorists while still efficiently relaying information to commuters.

As discussed in Section II, Project Description, of the Draft EIR, and shown in Tables 1 and 2 below, implementation of the Project would include the installation of up to 34 Freeway-Facing TCN Structures and 22 Non-Freeway Facing TCN Structures on Metro-owned property. The total amount of TCN Structure digital signage would be a maximum of approximately 55,000 square feet. The TCN Program would also include the removal of at least 110,000 square feet (2 to 1 square footage take-down ratio) of existing off-premise static displays within the City. The new TCN Structures would use intelligent technology to improve roadway efficiency and increase public safety and communication, while also generating advertising revenue for both Metro and the City.

The TCN Structures would be equipped with Metro's Regional Integration of Intelligent Transportation Systems (RIITS), which provides comprehensive real-time information among freeway, traffic, transit, and emergency systems and across various agencies. This information would be used to improve traffic and transportation systems and to disseminate information regarding roadway improvements and emergency events. Further, the TCN Structures may include live video and security feeds to supplement Caltrans' limited number of existing cameras on the freeway and street corridors for public safety. All information received from these additional cameras would only be used for mass traffic data, and no personal or private information would be collected or used. Additionally, the TCN Program would be designed to support future innovations such as autonomous vehicles, smart energy grids, and high-speed wireless cameras.

The TCN Structures would increase roadway efficiency by aiding traffic signal timing, micro-transit data, and Metro vanpool on-demand services. It would also improve the experience of bus passengers by facilitating transit signal priority, boosting bus wi-fi, and relaying accurate bus arrival time information. Finally, the TCN Program would enable data collection during large events in the City, to minimize congestion and provide parking information.

The TCN Program would create advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs. The TCN Structures would follow Metro's Advertising Content Guidelines. Off-site advertising would include information related to a business, commodity, industry or other activity which is sold, offered or conducted elsewhere than on the premises upon which the TCN Structure is located.

As part of the Project, the City would need to amend its sign regulations in Chapter I of the Los Angeles Municipal Code (the Zoning Code) to create a mechanism for reviewing and approving the TCN Structures (Zoning Ordinance) and the static display removals. The Zoning Ordinance, and other potential associated Zoning Code and General and/or Specific Plan amendments, would create a new class of signage for the TCN Structures given their unique attributes and intelligent technology.

Tables 1 and 2 below describe the Site Locations for freeway facing TCN structures, and non-freeway facing TCN structures, respectively.

Table 1
Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor's Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
FF-1	3	US-101 North Lanes at Union Station	5409023941	1,200 (1)	30	40	40
FF-2	3	US-101 South Lanes at Center Street	5173019901	672 (2)	14	48	72
FF-3	3	US-101 North Lanes at Keller Street	5409021902	672 (2)	14	48	72
FF-4	3	US-101 South Lanes at Beaudry Street	5160024904	672 (2)	14	48	75
FF-5	1	US-101 North Lanes, Northwest of Lankershim Boulevard	2423038970	672 (2)	14	48	65
FF-6	3	I-5 South Lanes at North Avenue 19	5415002903	672 (2)	14	48	85
FF-7	3	I-5 North Lanes at San Fernando Road	5445007903	672 (2)	14	48	85
FF-8	3	I-5 South Lanes and Exit Ramp to I-10	5410009901	672 (2)	14	48	85
FF-9	3	I-10 West Lanes (Bus Yard)	5410009901	672 (2)	14	48	50
FF-10	3	I-10 West Lanes and Entrance Ramp from I-5	5170010901	672 (2)	14	48	95
FF-11	3	I-10 East Lanes and Exit Ramp to SR-60 and I-5	5170010901	672 (2)	14	48	95
FF-12	3	I-10 West Lanes at Griffin Avenue and East 16th Street	5132029905	672 (2)	14	48	80
FF-13	1	SR-2 South Lanes Northeast of Casitas Avenue	5436033906	672 (2)	14	48	85
FF-14	1	SR-2 North Lanes Northeast of Casitas Avenue	5442001900	672 (2)	14	48	85
FF-15	1	SR-170 South Lanes at Raymer Street	2324002901	672 (1)	14	48	40
FF-16	1	SR-170 North Lanes North of Sherman Way	2307021901	672 (1)	14	48	40
FF-17	1	I-5 North Lanes South of Tuxford Street	2408038900	672 (2)	14	48	85
FF-18	1	I-5 South Lanes South of Tuxford Street	2632001901	672 (2)	14	48	85
FF-19	1	SR-118 East of San Fernando Road	2523001900	672 (2)	14	48	80

Sign ID	Map No.	Location	Assessor's Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
FF-20	1	SR-118 East of San Fernando Road	2523001900	672 (2)	14	48	80
FF-21	2	I-110 South Lanes at Exposition Boulevard	5037030902	672 (2)	14	48	80
FF-22	1	I-5 North Lanes at San Fernando Road	2603001901	672 (2)	14	48	65
FF-23	2	I-110 North Lanes at Exposition Boulevard	5122024909	672 (2)	14	48	80
FF-24	1	I-5 South Lanes at San Fernando Road and Sepulveda Boulevard	2605001915	672 (2)	14	48	95
FF-25	1	I-405 South Lanes at Victory Boulevard	2251002905	672 (2)	14	48	80
FF-26	2	I-405 North Lanes at Exposition Boulevard	4256010902	672 (2)	14	48	95
FF-27	2	I-405 South Lanes at Exposition Boulevard	4260039906	672 (1)	14	48	95
FF-28	2	I-10 West at Robertson Boulevard	4313024906	672 (1)	14	48	80
FF-29	2	SR-90 East at Culver Boulevard	4211007907	672 (2)	14	48	80
FF-30	2	SR-90 West at Culver Boulevard	4223009906	672 (2)	14	48	80
FF-31	2	I-105 West Lanes at Aviation Boulevard	4129028901	672 (2)	14	48	95
FF-32	2	I-105 East Lanes at Aviation Boulevard	4138001902	672 (2)	14	48	95
FF-33	2	I-110 South Lanes at Slauson Avenue	5001037907	672 (1)	14	48	80
FF-34	2	I-110 North Lanes at Slauson Avenue	5101040900	672 (2)	14	48	80

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sf = square feet

ft = feet

Source: Eyestone Environmental, 2022.

Table 2
Non-Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
NFF-1	1	Northeast corner of Vermont Avenue and Sunset Boulevard	5542015900	300 (2)	10	30	30
NFF-2	3	Spring Street Bridge, 326 feet North of Aurora Street	5409002900	300 (2)	10	30	65
NFF-3	1	Northwest corner of Lankershim Boulevard and Chandler Boulevard	2350016906	300 (1)	10	30	30
NFF-4	1	Northwest corner of Lankershim Boulevard and Universal Hollywood Drive	2423036919	300 (1)	10	30	30
NFF-5	1	Southwest corner of Lankershim Boulevard and Universal Hollywood Drive	2423036919	300 (1)	10	30	30
NFF-6	3	Southwest corner of 4th Street and Hill Street	5149015902	300 (1)	10	30	30
NFF-7	2	Venice Boulevard, 240 feet West of Robertson Boulevard	4313024909	300 (1)	10	30	30
NFF-8	3	Southeast corner of Alameda Street and Commercial Street	5173001901	672 (2)	14	48	60
NFF-9	1	Northeast corner of Van Nuys Boulevard and Orange Line Busline	2240008905	300 (2)	10	30	30
NFF-10	1	Southeast corner of Sepulveda Boulevard and Erwin Street	2242001904	300 (1)	10	30	30
NFF-11	2	Southwest of Crenshaw Boulevard, 175 feet South of 67th Street	4006025900	300 (1)	10	30	30
NFF-12	2	Southeast corner of Crenshaw Boulevard and Exposition Boulevard	5044002900	300 (2)	10	30	30
NFF-13	3	Southeast corner of East Cesar Chavez Avenue and North Vignes Street	5409023941	300 (2)	10	30	30
NFF-14	2	Pico Boulevard and Exposition Boulevard, South of rail	4260025902	300 (1)	10	30	30
NFF-15	2	Pico Boulevard, 445 feet West of Sawtelle Boulevard	4260039906	300 (1)	10	30	30
NFF-16	3	Southeast corner of South Central Avenue and East 1st Street	5161018903	300 (2)	10	30	30

Sign ID	Map No.	Location	Assessor Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
NFF-17	2	Century Boulevard, 152 feet West of Aviation Boulevard	4125026904	672 (2)	14	48	80
NFF-18	2	Southwest Aviation Boulevard and South of Arbor Vitae Street	4125020907	672 (2)	14	48	30
NFF-19	2	Northwest corner of Vermont Avenue and Beverly Boulevard	5520019900	300 (2)	10	30	30
NFF-20	2	Southwest corner of Santa Monica Boulevard and Vermont Avenue	5538022903	300 (2)	10	30	30
NFF-21	3	South of 4th Street 210 feet East of South Santa Fe Avenue	5163017900	300 (2)	10	30	65
NFF-22	3	Northwest corner of East 7th Street and South Alameda Street	5147035904	300 (2)	10	30	30

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sf = square feet

ft = feet

Source: Eyestone Environmental, 2022.

4. STATUTORY REQUIREMENTS

CEQA (PRC Section 21081), and particularly the CEQA Guidelines (Title 14 California Code Regulations Section 15091) require that:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the Project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. [CEQA Finding 1]
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been

adopted by such other agency or can and should be adopted by such other agency. [CEQA Finding 2]

3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR. [CEQA Finding 3]

(b) The findings required by subdivision (a) shall be supported by substantial evidence in the record.

(c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subdivision (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.

(d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.

(e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.

(f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to avoid or mitigate significant environmental impacts that would otherwise occur with implementation of the Project.[1]

For those significant impacts that cannot be mitigated to less-than-significant levels, the lead agency is required to find that specific overriding economic, legal, social, technological, or other benefits of the Project outweigh the significant impacts on the environment.[2] CEQA Guidelines Section 15093(a) states that, "If the specific economic, legal, social, technological, or other benefits of a Project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'" If the adverse environmental effects are considered acceptable the lead agency is required to prepare a Statement of Overriding Considerations.

[1] CEQA Guidelines Section 15091 (a) and (b).
[2] Public Resources Code Section 21081 (b).

4.1 RECORD OF PROCEEDINGS

For purposes of CEQA and the findings set forth herein, the record of proceedings for Metro's decision on the Project consists of: (a) matters of common knowledge to Metro, including, but not limited to, federal, State, and local laws and regulations; and (b) the following documents which are in the custody of Metro, One Gateway Plaza, Records Management, MS 99-PL-5, Los Angeles, CA 90012:

- Notice of Preparation and other public notices issued by Metro in conjunction with the Project;
- The Draft EIR dated September 2022, including all associated appendices and documents that were incorporated by reference;
- All testimony, documentary evidence, and all correspondence submitted in response to the Project during the scoping meetings or by agencies or members of the public during the public comment period on the Draft EIR, and responses to those comments (Chapter II, Responses to Comments, of the Final EIR);
- The Final EIR dated November 2022 including all associated appendices and documents that were incorporated by reference;
- The MMRP (Chapter IV of the Final EIR);
- All findings and resolutions adopted by Metro in connection with the Project, and all documents cited or referred to therein;
- All final technical reports and addenda, studies, memoranda, maps, correspondence, and all planning documents prepared by Metro or the consultants relating to the Project;
- All documents submitted to Metro by agencies or members of the public in connection with development of the Project;
- All actions of Metro with respect to the Project; and
- Any other materials required by PRC Section 21167.6(e) to be in the record of proceedings.

5. ENVIRONMENTAL IMPACTS FOUND TO BE SIGNIFICANT AND UNAVOIDABLE

Metro finds that, based upon substantial evidence in the record, as discussed below, the following impacts associated with the Project would be significant and unavoidable.

5.1 AESTHETICS

As discussed in Section IV.A of the Draft EIR, the Project would have significant impacts related to aesthetics with respect to the following significance thresholds:

- Have a substantial adverse effect on a scenic vista; and

- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). In an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.

Impacts. *Scenic Vistas:* As discussed more fully in Section IV.A, Aesthetics, Section IV.D, Cultural Resources, and Section VI, Other CEQA Considerations, of the Draft EIR, most of the TCN Structures would not have significant impacts on scenic vistas. However, the Project would include four TCN Structures (at Site Locations NFF-2, NFF-3, NFF-16, and NFF-21) that would be in close proximity to five historical resources (the North Spring Street Bridge (Caltrans Bridge No. 53C0859), Lankershim Depot, the Little Tokyo Historic District, the Japanese Village Plaza, and the Fourth Street Bridge (Caltrans Bridge No. 53C0044)). While these TCN Structures would not physically impact these historical resources, they would impede visibility of and thus detract from the character defining features of these five historical resources. Although these historical resources are located within urban areas where public views of these historical resources are affected by existing infrastructure and buildings, the proposed TCN Structures would further contribute to the urban visual components surrounding the historical resources. As such, the Project would result in a substantial adverse effect on a scenic vista, and this impact would be significant.

References. Section IV.A, Aesthetics, of the Draft EIR, pages IV.A-28 through IV.A-48. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64. Section VI, Other CEQA Considerations, of the Draft EIR, pages VI-1 through VI-3.

Mitigation Measures.

While Metro considered potential modifications to the size and height of the TCN Structures to mitigate this aesthetic impact, it determined that such modifications would not materially reduce this impact. Thus, no feasible mitigation measures have been identified to mitigate this impact.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that impacts to aesthetic resources related to scenic vistas would be significant. No feasible mitigation measures exist to mitigate these impacts. Thus, Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a)(3) of the CEQA Guidelines.

Impact. *Existing Visual Character and Quality of Public Views:* Most TCN Structures would not significantly impact visual character or public views. As discussed above, however, the TCN Structures at Site Locations NFF-2, NFF-3, NFF-16, and NFF-21 would detract from the character defining features of five historical resources. Thus, the Project would have significant impacts on the existing visual character and quality of public views in the vicinity of those historical resources.

References. Section IV.A, Aesthetics, of the Draft EIR, pages IV.A-28 through IV.A-48. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64. Section VI, Other CEQA Considerations, of the Draft EIR, pages VI-1 through VI-3.

Mitigation Measures.

While Metro considered potential modifications to the size and height of the TCN Structures to mitigate these aesthetic impacts, it determined that such modifications would not materially reduce the impacts. Thus, no feasible mitigation measures have been identified to mitigate these impacts.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to aesthetic resources related to visual character and quality of public views would be significant. No feasible mitigation measures exist to mitigate the impacts. Thus, Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a)(3) of the CEQA Guidelines.

Impact. *Conflicts with Plans, Policies, and Regulations Governing Scenic Quality:* Most of the TCN Structures would not conflict with plans, policies, and regulations governing scenic quality. However, as discussed in Section IV.A, Aesthetics, Section VI, Other CEQA Considerations, and Appendix I, Land Use, of the Draft EIR, Site Locations NFF-2, NFF-3, NFF-16 and NFF-21 would be inconsistent with several goals and policies of the Central City North, Central City, and North Hollywood–Valley Villa Community Plans regarding historical resources and associated visual impacts. In addition, the Project would also be inconsistent with Palms–Mar Vista–Dey Community Plan policies regarding placement of off-site premises signs within the coastal area (relative to Site Locations FF-29 and FF-30). Thus, the project conflicts with applicable plans, policies, and regulations governing scenic quality, and this impact would be significant.

References. Section IV.A, Aesthetics, of the Draft EIR, pages IV.A-28 through IV.A-48. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64. Section VI, Other CEQA Considerations, of the Draft EIR, pages VI-1 through VI-3. Appendix I, Land Use, to the Draft EIR, pages 21–50.

Mitigation Measures.

While Metro considered potential modifications to the size and height of the TCN Structures to mitigate these aesthetic impacts, it determined that such modifications would not materially reduce the impacts. Thus, no feasible mitigation measures have been identified to mitigate these impacts.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to aesthetic resources related to conflicts with plans, policies, and regulations governing scenic quality would be significant. No feasible mitigation measures exist to mitigate these impacts. Thus, Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a)(3) of the CEQA Guidelines.

5.2 CULTURAL RESOURCES

As discussed in Section IV.D of the Draft EIR, the Project would have significant impacts related to cultural resources with respect to the following significance threshold:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.

Impact. *Historical Resources:* As discussed above and in Section IV.D, Cultural Resources, and Section VI, Other CEQA Considerations, of the Draft EIR, most of the TCN Structures would not significantly impact historical resources; however, the Project would result in visual impacts to five historical resources, including the North Spring Street Bridge (Caltrans Bridge No. 53C0859), the Lankershim Depot, the Little Tokyo Historic District, the Japanese Village Plaza, and the Fourth Street Bridge (Caltrans Bridge No. 53C0044). Such impacts are specifically associated with Site Locations NFF-2, NFF-3 NFF-16, and NFF-21. These Site Locations are within immediate proximity of these historical resources, and the Project would likely result in permanent and unavoidable visual impacts by fundamentally affecting the integrity of setting and feeling. Although these historical resources are within an urban setting subjected to the visual, atmospheric, and audible effects of the environment on a regular basis, the TCN Structures at these Site Locations would likely detract from the character-defining features and affect the viewsheds of the resources. As such, these impacts to historical resources would be significant.

References. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64. Section VI, Other CEQA Considerations, of the Draft EIR, pages VI-2 through VI-3.

Mitigation Measures.

While Metro considered potential modifications to the size and height of the TCN Structures to mitigate the cultural impacts to historical resources, it determined that such modifications would not materially reduce the impacts. Thus, no feasible mitigation measures have been identified to mitigate these impacts.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to cultural resources related to historical resources would be significant. No feasible mitigation measures exist to mitigate these impacts. Thus, Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a)(3) of the CEQA Guidelines.

5.3 LAND USE AND PLANNING

As discussed in Section IV.I of the Draft EIR, the Project would have significant impacts related to land use and planning with respect to the following significance threshold:

- Conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts. As discussed more fully in Section IV.I, Land Use and Planning, and Section VI, Other CEQA Considerations, of the Draft EIR, the Project would not conflict with most of the goals, policies, and objectives in state, regional, and local plans that were adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the Project would not overall conflict with environmental policies of or impede implementation of the Coastal Act, SCAG's 2020-2045

RTP/SCS, Metro's Vision Plan, the Mobility Plan and most of the policies set forth in the General Plan, including the Community Plans. However, the Project would conflict with a few goals and policies related to historical and aesthetic resources associated with Site Locations NFF-2. NFF-3, NFF-16 and NFF-21 in the Central City North, Central City, North Hollywood–Valley Village Community Plans, as well as the General Plan's Conservation Element policies related to historical resources. In addition, the Project would conflict with the Palms–Mar Vista–Del Rey Community Plan policy regarding placement of off-site advertising within coastal areas due to Site Locations FF-29 and FF-30. As such, these impacts related to conflicts with applicable plans, policies, and regulations would be significant.

References. Section IV.I, Land Use and Planning, of the Draft EIR, pages IV.I-13 through IV.I-26. Section VI, Other CEQA Considerations, of the Draft EIR, page VI-3.

Mitigation Measures.

Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. Thus, there are no feasible measures that would mitigate these impacts to less-than-significant levels.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to land use and planning would be significant. No feasible mitigation measures exist to mitigate these impacts. Thus, Metro adopts CEQA Finding 3, as identified in Section 4 above and in Section 15091(a)(3) of the CEQA Guidelines.

6. ENVIRONMENTAL IMPACTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION

Metro finds that, based upon substantial evidence in the record, as discussed below, the following impacts associated with the Project are potentially significant, but can be reduced to less-than-significant levels through the proposed mitigation measures listed below and in the MMRP. The following Findings summarize the analysis in the EIR, but do not purport to provide the full analysis of each environmental impact contained in the EIR. A full explanation of these environmental findings and conclusions can be found in the Draft EIR and Final EIR and these Findings hereby incorporate by reference the discussion and analysis in those documents supporting the Final EIR's determinations regarding mitigation measures and the Projects' impacts and mitigation measures designed to address those impacts. As identified in the EIR, the Metro Board finds that changes or alterations which avoid or substantially lessen the significant environmental effects have been required in, or incorporated into, the Project.

6.1 BIOLOGICAL RESOURCES

As discussed in Section IV.C of the Draft EIR, the Project would result in potentially significant impacts related to biological resources with respect to the following significance thresholds:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; and
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact. *Candidate, Sensitive, and Special Status Species:* As discussed more fully in Section IV.C of the Draft EIR, the Project has the potential to impact 14 special-status wildlife species and 5 special-status plant species through construction activities, habitat removal, and the addition of new TCN structures within suitable habitat areas. To minimize these impacts to a less-than-significant level, Mitigation Measures **BIO-MM-1** through **BIO-MM-4**, set forth below, would be implemented.

Reference. Section IV.C, Biological Resources, of the Draft EIR, pages IV.C-23 through IV.C-39.

Mitigation Measures

BIO-MM-1: **Implement Biological Resource Protection Measures during Construction (All Site Locations and takedown locations of existing static displays).** The following BMPs shall be implemented during construction to minimize direct and indirect impacts on biological resources and special-status species:

- Prior to the commencement of construction, a Project biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or a related environmental science; greater than five years of experience and knowledge of natural history, habitat affinities, and id of flora and fauna species; and knowledge of all relevant federal, state, and local laws governing biological resources, including CDFW qualifications for field surveyors)) shall be designated to be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor on issues relating to biological resources and compliance with applicable environmental requirements. The Project biologist may designate other qualified biologists or biological monitors to help oversee Project compliance or conduct preconstruction surveys

for special-status species. These biologists will have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.

- The Project biologist or designated qualified biologist shall review final plans; designate areas that need temporary fencing (e.g., ESA fencing); and monitor construction activities within and adjacent to areas with native vegetation communities, regulated aquatic features, or special-status plant and wildlife species. The qualified biologist shall monitor compliance with applicable environmental requirements during construction activities within designated areas during critical times, such as initial ground-disturbing activities (fencing to protect native species). The qualified biologist shall check construction barriers or exclusion fencing and provide corrective measures to the contractor to ensure the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a federally or state-listed species is encountered within the Project footprint during construction. Construction activities shall cease until the Project biologist or qualified biologist determines that the animal will not be harmed or that it has left the construction area on its own. The Project biologist shall notify Metro, and Metro shall notify the appropriate regulatory agency within 24 hours of sighting of a federally or State-listed species.
- Prior to the start of construction, all Project personnel and contractors who will be on the Site Locations during construction shall complete mandatory training conducted by the Project biologist or a designated qualified biologist. Any new Project personnel or contractors that start after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on special-status vegetation communities and special-status species and the potential penalties for impacts on such vegetation communities and species. At a minimum, the training shall include the following topics: (1) occurrences of special-status species and special-status vegetation communities within the Site Location footprints (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction); (2) the purpose for resource protection; (3) sensitivity of special-status species to human activities; (4) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced areas to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or in the BSA by fencing); (5) environmentally responsible construction practices; (6) the protocol to resolve conflicts that may arise at any time during the construction process; (7) reporting requirements and procedures to follow should a special-status species be encountered during construction; and (8) Avoidance Measures designed to reduce the impacts on special-status species.

- The training program will include color photos of special-status species and special-status vegetation communities. Following the education program, the photos will be made available to the contractor. Photos of the habitat in which special-status species are found will be posted on site. The contractor shall provide Metro with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project biologist or designated biologist of any incidents that could affect special-status vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project biologist shall notify Metro of any incident, and Metro shall notify the appropriate regulatory agency.
- The Project biologist shall conduct a preconstruction survey for special-status species within the Project footprint prior to vegetation clearing, and/or ground disturbance. Any wildlife encountered will be encouraged to leave the Site Location footprint or relocated outside of the Site Location footprint if feasible.
- The Project biologist shall request that the contractor halt work, if necessary, and confer with Metro prior to contacting the appropriate regulatory agencies to ensure the proper implementation of species and habitat protection measures. The Project biologist shall report any noncompliance issue to Metro, and Metro will notify the appropriate regulatory agencies.
- The Project biologist shall inspect the Site Location footprint immediately prior to, and during, construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the Project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies.
- ESA fencing shall be placed along the perimeter of the Site Location footprint, where necessary, to prevent inadvertent intrusions into habitat identified as ESA. Work areas will be clearly marked in the field and confirmed by the Project biologist or designated biologist prior to any clearing, and the marked boundaries will be maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, will be flagged and fenced with ESA fencing (e.g., orange plastic snow fence, orange silt fencing). Fences and flagging will be installed by the contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of Metro.
- No work activities, materials or equipment storage, or access shall be permitted outside the Site Location footprint without permission from Metro. All parking and equipment storage used by the contractor related to the Project shall be confined to the Site Location footprint and established paved areas. Undisturbed areas and

special-status vegetation communities outside and adjacent to the Site Location footprint shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the Site Location footprint and established roads and construction access points.

- The contractor shall be required to conduct vehicle refueling and maintenance in upland areas where fuel cannot enter waters of the U.S. or WOS waters of the State and areas that do not have suitable habitat to support federally and/or state-listed species. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces shall be cleaned up and disposed of in accordance with applicable local, State, and federal requirements.

BIO-MM-2: **Avoid Impacts on Migratory and Nesting Birds (All Site Locations and takedown locations of existing static displays)** If construction activities occur between January 15 and September 15, a preconstruction nesting bird survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within the area proposed for disturbance in order to avoid the nesting activities of breeding birds by establishing a buffer until the fledglings have left the nest. The size of the buffer area varies with species and local circumstances (e.g., presence of busy roads) and is based on the professional judgement of the monitoring biologist, in coordination with the CDFW. The results of the surveys shall be submitted to Metro (and made available to the wildlife agencies [USFWS/CDFW], upon request) prior to initiation of any construction activities.

BIO-MM-3: **Avoid impacts on Least Bell's Vireo, if present (Applicable to Site Locations FF-29 and FF-30)** Suitable habitat for Least Bell's Vireo shall be removed outside of the nesting season (March 15 through September 30), between October 1 and March 14. Should habitat for Least Bell's Vireo require removal between March 15 and September 30, or construction activities are initiated during this time, preconstruction surveys consisting of three separate surveys no more than seven days prior to vegetation removal shall be conducted by a qualified biologist. Should Least Bell's Vireo be detected within 500 feet of the Site Location, construction activities shall be halted unless authorization has been obtained from USFWS.

BIO-MM-4: **Avoid Potential Impacts on Special-Status Bats (All Site Locations and take down locations of static displays)** A qualified bat biologist shall conduct a preconstruction survey for potential bat habitat within the take down area of the static display or Site Location footprint prior to vegetation clearing, and/or ground disturbance for take down locations and all Site Locations. If suitable habitat is not found, then no further action is required.

If suitable habitat is determined to be present:

- A qualified bat biologist shall survey potentially suitable structures and vegetation during bat maternity season (May 1st through October 1st), prior to construction, to assess the potential for the structures' and vegetation's use for bat roosting and

bat maternity roosting, as maternity roosts are generally formed in spring. The qualified bat biologist shall also perform preconstruction surveys or temporary exclusion within 2 weeks prior to construction during the maternity season, as bat roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys.

- If a roost is detected, a bat management plan shall be prepared if it is determined that Project construction would result in direct impacts on roosting bats. The bat management plan shall be submitted to CDFW for review and approval prior to implementation and include appropriate avoidance and minimization efforts such as:
- Temporary Exclusion. If recommended by the qualified bat biologist, to avoid indirect disturbance of bats while roosting in areas that would be adjacent to construction activities, any portion of a structure deemed by a qualified bat biologist to have potential bat roosting habitat and may be affected by the Project shall have temporary eviction and exclusion devices installed under the supervision of a qualified and permitted bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion shall be conducted during the fall (September or October) to avoid trapping flightless young bats inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of two weeks to implement, and must be continued to keep the structures free of bats until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW) if the structure is occupied by bats. If deemed appropriate, the biologist may recommend installation of temporary bat panels during construction.

If a roost is detected but would only be subject to indirect impacts:

- Daytime Work Hours. All work conducted under the occupied roost shall take place during the day. If this is not feasible, lighting and noise will be directed away from night roosting and foraging areas.

Finding. These potentially significant biological impacts would be mitigated through the use of best practices during construction, seasonally-appropriate surveying and monitoring of potentially impacted species, and techniques to avoid and minimize impacts on biological resources during the Project's construction and operations. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **BIO-MM-1** through **BIO-MM-4,** the Project's impacts to biological resources related to candidate, sensitive, and special-status species would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines

Impact. *Riparian Habitat and Other Sensitive Natural Communities:* As discussed more fully in Section IV.C.3 of the Draft EIR, construction activities in two Site Locations could interfere with sensitive vegetation communities. To minimize these impacts to a less-than-significant level, Mitigation Measure **BIO-MM-1**, set forth above, would be implemented

Reference. Section IV.C, Biological Resources, of the Draft EIR, pages IV.C-23 through IV.C-39.

Mitigation Measure

BIO-MM-1: **Implement Biological Resource Protection Measures during Construction** (See above)

Finding. These potentially significant biological impacts would be mitigated through the use of best practices during construction. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measure **BIO-MM-1**, the Project's impacts to biological resources related to riparian habitat and other sensitive natural communities would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

Impact. *Wetlands:* As discussed more fully in Section IV.C.3 of the Draft EIR, construction activities in eight site locations could have indirect impacts to downstream aquatic resources if fill or hazardous materials were to spill into nearby waterways. To minimize these impacts to a less-than-significant level, Mitigation Measure **BIO-MM-1**, set forth above, would be implemented.

Reference. Section IV.C, Biological Resources, of the Draft EIR, pages IV.C-23 through IV.C-39.

Mitigation Measure

BIO-MM-1: **Implement Biological Resource Protection Measures during Construction** (See above)

Finding. These potentially significant biological impacts would be mitigated through the use of best practices during construction. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measure **BIO-MM-1**, the Project's impacts to biological resources related to wetlands would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

Impact. *Movement of Wildlife Species, Migratory Corridors, and Wildlife Nursery Sites:* As discussed more fully in Section IV.C of the Draft EIR, static display removal could interfere with bird nesting. Additionally, there could be impacts to wildlife that stray from ordinary migratory

corridors and pass closer to Project construction or operations. To minimize these impacts to a less-than-significant level, Mitigation Measures **BIO-MM-1**, **BIO-MM-2**, and **BIO-MM**-4, set forth above, would be implemented.

Reference. Section IV.C, Biological Resources, of the Draft EIR, pages IV.C-23 through IV.C-39.

Mitigation Measures

BIO-MM-1: **Implement Biological Resource Protection Measures during Construction** (See above)

BIO-MM-2: **Avoid Impacts on Migratory and Nesting Birds** (See above)

BIO-MM-4: **Avoid Potential Impacts on Special-Status Bats** (See above)

Finding. The potentially significant biological impacts would be mitigated through the use of best practices during construction, seasonally-appropriate surveying and monitoring of potentially impacted species, and techniques to avoid and minimize impacts on biological resources during the Project's construction and operations. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **BIO-MM-1**, **BIO-MM-2**, and **BIO-MM-4,** the Project's impacts to biological resources related to movement of wildlife species, migratory corridors, and wildlife nursery sites would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines

6.2 CULTURAL RESOURCES

As discussed in Section IV.D of the Draft EIR, the Project would create potentially significant impacts related to cultural resources with respect to the following significance threshold:

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

Impact. *Archaeological Resource:* As discussed more fully in Section IV.D of the Draft EIR, the Project would include excavations to a maximum depth of approximately 50 feet below ground surface. As a result, unknown archaeological resources at the Site Locations could potentially be impacted. Mitigation Measure CUL-MM-1, as set forth below, would be implemented to mitigate these impacts to a less-than-significant level.

Reference. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64.

Mitigation Measures

CUL-MM-1: Prior to the start of ground disturbance activities during Project construction, including demolition, digging, trenching, drilling, or a similar activity (Ground

Disturbance Activities), a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology shall be retained to prepare a written Cultural Resource Monitoring and Treatment Plan in accordance with the Secretary of the Interior's Standards for Archaeological Documentation, to reduce potential Project impacts on unanticipated archaeological resources unearthed during construction. The Cultural Resource Monitoring and Treatment Plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Site Locations, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements.

Prior to the commencement of any Ground Disturbance Activities, the archaeological monitor(s) shall provide Worker Environmental Awareness Program (WEAP) training to construction workers involved in Ground Disturbance Activities that provides information on regulatory requirements for the protection of cultural resources. As part of the WEAP training, construction workers shall be informed about proper procedures to follow should a worker discover a cultural resource during Ground Disturbance Activities. In addition, construction workers shall be shown examples of the types of resources that would require notification of the archaeological monitor. The Applicant shall maintain on the Site Locations, for Metro inspection, documentation establishing that the training was completed for all construction workers involved in Ground Disturbance Activities.

The archaeological monitor(s) shall observe all Ground Disturbance Activities on the Site Locations that involve native soils. If Ground Disturbance Activities are occurring simultaneously at multiple Site Locations, the principal archaeologist shall determine if additional monitors are required for other Site Locations where such simultaneous Ground Disturbance Activities are occurring. The on-site archaeological monitoring shall end when the archaeological monitor determines that monitoring is no longer necessary.

Finding. The potential impacts to archaeological resources would be mitigated by requiring a qualified archeologist to oversee construction activities. For the reasons set forth above and in the Draft EIR, Metro finds that, through implementation of Mitigation Measure **CUL-MM-1**, the Project's impacts to cultural resources related to archaeological resources would be mitigated to less-than-significant levels. Because this impact related to cultural resources would be reduced to less-than-significant levels, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

6.3 GEOLOGY AND SOILS

As discussed in Section IV.F of the Draft EIR, the Project would create potentially significant impacts related to geology and soils with respect to the following significance threshold:

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact. *Paleontological Resources:* As discussed in Section IV.F of the Draft EIR, the Project would include excavations up to 50 feet below grade in soils that could be conducive to preserving vertebrate fossils. It is possible that paleontological resources may be encountered during grading and drilling operations within the Site Locations. Therefore, potential impacts to unique paleontological resources would be potentially significant. To minimize these impacts to a less-than-significant level, Mitigation Measure **GEO-MM-1**, set forth below, would be implemented.

Reference. Section IV.F, Geology and Soils, of the Draft EIR, page IV.F-46 through IV.F-56.

Mitigation Measure

GEO-MM-1: The services of a Project paleontologist who meets the Society of Vertebrate Paleontology standards (including a graduate degree in paleontology or geology and/or a publication record in peer reviewed journals, with demonstrated competence in the paleontology of California or related topical or geographic areas, and at least two full years of experience as assistant to a Project paleontologist), shall be retained prior to ground disturbance activities associated with Project construction in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The Paleontological Resource Mitigation and Treatment Plan shall specify the levels and types of mitigation efforts based on the types and depths of ground disturbance activities and the geologic and paleontological sensitivity of the Site Locations. The Paleontological Resource Mitigation and Treatment Plan shall also include a description of the professional qualifications required of key staff, communication protocols during construction, fossil recovery protocols, sampling protocols for microfossils, laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens.

Finding. The potential impacts to paleontological resources would be mitigated by requiring a qualified paleontologist to preemptively develop protocols for reporting and handling any paleontological resources that are discovered during ground disturbance activities. For the reasons stated above and as set forth in the EIR, Metro finds that, through implementation of Mitigation Measure **GEO-MM-1**, the Project's impacts to geology and soils related to paleontological resources would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

6.4 HAZARDS AND HAZARDOUS MATERIALS

As discussed in Section IV.H of the Draft EIR, the Project would result in potentially significant impacts related to hazards and hazardous materials with respect to the following significance thresholds:

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; and
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Impact. *Release of Hazardous Materials:* As discussed more fully in Section IV.H of the Draft EIR and in the Hazards Report, impacts related to the release of hazardous materials into the environment would be potentially significant. The primary Chemicals of Concern (COCs) likely to be encountered at all sites include Total Petroleum Hydrocarbons as Gasoline (TPHg), Total Petroleum Hydrocarbons as Diesel (TPHd), Total Petroleum Hydrocarbons as Oil (TPHo), arsenic, lead, chromium and polynuclear aromatic hydrocarbons (PAHs). A Soil Management Plan (SMP)/Health and Safety Plan (HASP) will be implemented for all Site Locations during construction activities, as provided below in Mitigation Measure **HAZ-MM-1**. In addition, 19 of the 54 Site Locations were identified as high risk and may contain solvent hydrocarbons (primarily Percholroethylene [PCE]/Tetrachloroethylene [TCE] and breakdown by-products) and gasoline in addition to the primary COCs listed above. Furthermore, four Site Locations are near suspected oil wells and may have Underground Storage Tanks (USTs) on the parcels. Therefore, impacts related to the release of hazardous materials into the environment would be potentially significant. To mitigate these impacts to a less-than-significant level, Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, described below, would be implemented.

References. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49. Appendix H, Hazards Technical Report, to the Draft EIR.

Mitigation Measures

HAZ-MM-1: **(All Site Locations):** Soil Management Plan (SMP)—The Project Applicant shall implement an SMP, which shall be submitted to the Metro Capital Engineering Group and/or City of Los Angeles Department of Building and Safety for review and approval prior to the commencement of excavation and grading activities. The Site Locations shall be subject to the general protocols described in the SMP regarding prudent precautions and general observations and evaluations of soil conditions to be implemented throughout grading, excavation, or other soil disturbance activities on the Site Locations.

The protocols in the SMP shall include, but not be limited to, the following:

- Special precautions shall be taken to manage soils that will be disturbed during Project earthwork activities in areas containing Chemicals of Concern (COCs) above screening levels (SLs).

- The following requirements and precautionary actions shall be implemented when disturbing soil at the Site Locations: no soil disturbance or excavation activities shall occur without a Project-specific Health and Safety Plan (HASP). Any soil that is disturbed, excavated, or trenched due to on-site construction activities shall be handled in accordance with applicable local, state, and federal regulations. Prior to the re-use of the excavated soil or the disposal of any soil from the Site Locations, the requirements and guidelines in the SMP shall be implemented. The General Contractor shall conduct, or have its designated subcontractor conduct, visual screening of soil during activities that include soil disturbance. If the General Contractor or subcontractor(s) encounter any soil that is stained or odorous (Suspect Soil), the General Contractor and subcontractor(s) shall immediately stop work and take measures to not further disturb the soils (e.g., cover suspect soil with plastic sheeting) and inform the Metro's representative and the environmental monitor. The environmental monitor, an experienced professional trained in the practice of the evaluation and screening of soil for potential impacts working under the direction of a licensed Geologist or Engineer, shall be identified by Metro prior to the beginning of work.
- Prior to excavation activities, the General Contractor or designated subcontractor shall establish specific areas for stockpiling Suspect Soil, should it be encountered, to control contact by workers and dispersal into the environment, per the provisions provided in the SMP.
- The General Contractor shall ensure that on-site construction personnel comply with all applicable federal, state, and local regulations, as well as the State of California Construction Safety Orders (Title 8). Additionally, if Suspect Soil is expected to be encountered, personnel working in that area shall comply with California Occupational Safety and Health Administration regulations specified in CCR Title 8, Section 5192. The General Contractor shall prepare a Project-specific HASP. It is the responsibility of the General Contractor to review available information regarding Site Location conditions, including the SMP, and potential health and safety concerns in the planned area of work. The HASP should specify COC action levels for construction workers and appropriate levels of personal protective equipment (PPE), as well as monitoring criteria for increasing the level of PPE. The General Contractor and each subcontractor shall require its employees who may directly contact Suspect Soil to perform all activities in accordance with the General Contractor and subcontractor's HASP. If Suspect Soil is encountered, to minimize the exposure of other workers to potential contaminants on the Site Location, the General Contractor or designated subcontractor may erect temporary fencing around excavation areas with appropriate signage as necessary to restrict access and to warn unauthorized on-site personnel not to enter the fenced area.
- The General Contractor shall implement the following measures as provided in the SMP to protect human health and the environment during construction activities involving contact with soils at the Site Location: decontamination of construction and transportation equipment; dust control measures; storm water pollution controls and best management practices; and proper procedures for the handling, storage, sampling, transport and disposal of waste and debris.

- The excavated soil should be screened using a calibrated hand-held PID to test for VOCs and methane as necessary.
- In the event volatile organic compound (VOC)-contaminated soil is encountered during excavation on-site, a South Coast Air Quality Management District (SCAQMD) Rule 1166 permit shall be obtained before resuming excavation. Rule 1166 defines VOC-contaminated soil as a soil which registers a concentration of 50 ppm or greater of VOCs as measured before suppression materials have been applied and at a distance of no more than three inches from the surface of the excavated soil with an organic vapor analyzer calibrated with hexane. Notifications, monitoring, and reporting related to the SCAQMD Rule 1166 permit shall be the responsibility of the General Contractor. Protection of on-site construction workers shall be accomplished by the development and implementation of the HASP.
- Known below-grade structures at the Site Locations (i.e., storm water infrastructure) shall be removed from the ground or cleaned, backfilled, and left in place as appropriate during grading and excavation. If unknown below-grade structures are encountered during Site Location excavation, the General Contractor shall promptly notify the Metro's representative the same day the structure is discovered. Based on an evaluation of the unknown below-grade structure by the appropriate professional (e.g., environmental monitor, geotechnical engineer), Metro shall address the below-grade structure in accordance with applicable laws and regulations.
- A geophysical investigation shall be conducted at the Site Locations to clear the construction area of buried utilities

HAZ-MM-2: **(Site Locations FF-1, FF-2, FF-3, FF-4, FF-5, FF-6, FF-13, FF-14, FF-29, FF-30, NFF-1, NFF-2, NFF-3, NFF-8, NFF-12, NFF-13, NFF-18, NFF-19, and NFF-21):** Soil/vapor sampling and testing of soil samples shall be obtained during the site location-specific, design-level geologic and geotechnical investigation. Results of the testing would be submitted and approved by the Metro Capital Engineering Group and/or the Los Angeles Department of Building and Safety (LADBS).

HAZ-MM-3: **(Site Locations FF-4, NFF-3, NFF-18, and NFF-21):** A geophysical investigation shall be conducted to clear the construction area of buried utilities and to identify buried substructures, specifically oil wells and USTs. Results of the geophysical investigation shall be submitted to and approved by the Metro Capital Engineering Group and/or LADBS.

Finding. The potential impacts related to hazards and hazardous materials described above would be mitigated by requiring compliance with site-specific Soil Management Plans, and where necessary, conducting additional testing and investigations at high-risk Site Locations and Site Locations near suspect oil wells. For the reasons set out above and in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, the Project's hazards and hazardous materials impacts related to release of hazardous materials would be reduced to less-than-significant levels. For each of these impacts, Metro

adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

Impact. *Hazards Near Schools:* As discussed in Section IV.H of the Draft EIR, the Project would involve construction of TCN Structures and takedown of existing static displays on a variety of locations on Metro property within the City, some of which would be within 0.25 mile of a school. Although the Project would involve the use of hazardous materials common to urban construction projects and TCN Structure operations, all activities involving the handling, use, storage, transport, and disposal of hazardous materials and wastes would occur in compliance with applicable federal, state, and local requirements. In addition, as discussed above, if construction activities uncover hazardous conditions that have the potential to result in risk of upset, Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, described above, would be implemented, which would reduce such impacts to less than significant levels. As such, the Project would not create a significant hazard to nearby schools. Therefore, impacts regarding potential emissions or the handling of hazardous materials and wastes within 0.25 mile of an existing school would be less than significant with mitigation.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures

HAZ-MM-1: **(All Site Locations):** Soil Management Plan (SMP) (See above)

HAZ-MM-2: **(Site Locations FF-1, FF-2, FF-3, FF-4, FF-5, FF-6, FF-13, FF-14, FF-29, FF-30, NFF-1, NFF-2, NFF-3, NFF-8, NFF-12, NFF-13, NFF-18, NFF-19, and NFF-21)** (See above)

HAZ-MM-3: **(Site Locations FF-4, NFF-3, NFF-18, and NFF-21)** (See above)

Finding. These potential impacts related to hazards and hazardous materials would be mitigated by requiring compliance with site-specific Soil Management Plans, and where necessary, conducting additional testing and investigations at high-risk Site Locations and Site Locations near suspect oil wells. For the reasons set out above and in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, these hazards and hazardous materials impacts near schools would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines

Impact. *Hazardous Materials Sites:* As discussed in Section IV.H of the Draft EIR, two Site Locations have been identified as hazardous waste or contaminated sites pursuant to Government Code Section 65962.5. Although no current violations and no active regulatory cases were identified for the Site Locations, the Project may create a significant hazard to the public or the environment caused in whole or in part from the Project's exacerbation of existing environmental conditions. Therefore, impacts with respect to these sites would be potentially

significant. To mitigate these impacts to a less-than-significant level, Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, described above, would be implemented. Therefore, impacts relating to hazardous materials sites would be less than significant with mitigation.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures

HAZ-MM-1: **(All Site Locations):** Soil Management Plan (SMP) (See above)

HAZ-MM-2: **(Site Locations FF-1, FF-2, FF-3, FF-4, FF-5, FF-6, FF-13, FF-14, FF-29, FF-30, NFF-1, NFF-2, NFF-3, NFF-8, NFF-12, NFF-13, NFF-18, NFF-19, and NFF-21)** (See above)

HAZ-MM-3: **(Site Locations FF-4, NFF-3, NFF-18, and NFF-21)** (See above)

Finding. These potential impacts would be mitigated by requiring compliance with site-specific Soil Management Plans, and where necessary, conducting additional testing and investigations at high-risk Site Locations and Site Locations near suspect oil wells. For the reasons set out above and in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **HAZ-MM-1** through **HAZ-MM-3**, the Project's hazards and hazardous materials impacts related to hazardous materials sites would be reduced to less-than-significant levels. For each of these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

6.5 NOISE

As discussed in Section IV.J of the Draft EIR, the Project would create potentially significant impacts related to noise with respect to the following significance thresholds:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; and
- Generate excessive groundborne vibration or groundborne noise levels.

Impact. *Increased Ambient Noise Levels (On-Site Construction):* As discussed in Section IV.J of the Draft EIR, noise generated by the Project's on-site construction equipment would cause a substantial temporary increase in ambient noise levels. Noise levels would exceed the City's significance criteria in the vicinity of seven Site Locations during the daytime and four Site

Locations at nighttime.[3] To mitigate these noise impacts to less-than-significant levels, Mitigation Measures **NOI-MM-1** through **NOI-MM-3**, set forth below, would be implemented.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures

NOI-MM-1: A temporary and impermeable sound barrier shall be erected at the locations listed below. At plan check, building plans shall include documentation prepared by a noise consultant verifying compliance with this measure.

- During TCN Structure NFF 11 Construction: Between the Project construction area and the residential uses on 67th Street north of the Site Location (receptor location R5). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R5.
- During TCN Structure NFF 12 Construction: Between the Project construction area and the residential uses on Victoria Avenue west of the Site Location (receptor location R6). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R6.
- During TCN Structure NFF 14 Construction: Between the Project construction area and the residential uses on Exposition Boulevard southeast of the Site Location (receptor location R7). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R7.
- During TCN Structure NFF 19 Construction: Between the Project construction area and the residential uses on New Hampshire Avenue west of the Site Location (receptor location R10). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R10.
- During TCN Structure NFF 20 Construction: Between the Project construction area and the residential uses on New Hampshire Avenue northwest of the Site Location (receptor location R12). The temporary sound barrier shall be designed to provide a minimum 7-dBA noise reduction at the ground level of receptor location R12.

[3] Site Locations NFF 11, NFF 12, NFF 19, NFF 20, NFF 21, FF 28, and FF 33 will experience significant daytime ambient noise level increases, and Site Locations NFF 14, FF 13, FF 26, and FF 28 will experience significant nighttime ambient noise level increases.

- During TCN Structure NFF 21 Construction: Between the Project construction area and the residential uses on Mateo Street west of the Site Location (receptor location R13). The temporary sound barrier shall be designed to provide a minimum 7-dBA noise reduction at the ground level of receptor location R13.
- During TCN Structure FF 13 Construction: Between the Project construction area and the residential uses on Casitas Avenue Street west of the Site Location (receptor location R20). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R20.
- During TCN Structure FF 26 Construction: Between the Project construction area and the residential uses on Sepulveda Boulevard northeast of the Site Location (receptor location R25). The temporary sound barrier shall be designed to provide a minimum 6-dBA noise reduction at the ground level of receptor location R25.
- During TCN Structure FF 28 Construction: Between the Project construction area and the residential uses on Exposition Boulevard south of the Site Location (receptor location R27). The temporary sound barrier shall be designed to provide a minimum 6-dBA noise reduction at the ground level of receptor location R27.
- During TCN Structure FF 33 Construction: Between the Project construction area and the residential uses on Slauson Avenue north of the Site Location (receptor location R28. The temporary sound barrier shall be designed to provide a minimum 11-dBA noise reduction at the ground level of receptor location R28.

NOI-MM-2: Construction for TCN Structure NFF-20 shall be completed prior to occupation of the adjacent future residential building (receptor R12B). Alternatively, construction equipment for the installation of the TCN Structure NFF-20 shall be limited to a maximum 75 dBA (L_{eq}) at 50 feet from the equipment.

NOI-MM-3: A temporary noise barrier shall be provided during the removal of existing static signage where noise sensitive uses are located within 200 feet of and have direct line-of-sight to the existing static signage to be removed. The temporary noise barrier shall be a minimum six feet tall and break the line-of-site between the construction equipment and the affected noise sensitive receptors.

Finding. These potential noise impacts would be mitigated by requiring temporary sound barriers and limiting certain construction equipment, as described above. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measures **NOI-MM-1** through **NOI-MM-3**, these noise impacts related to ambient noise from on-site construction would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

Impact. *Vibrations (Human Annoyance from On-Site Construction):* As discussed more fully in Section IV.J of the Draft EIR, the Project construction would result in vibration levels above the threshold for human annoyance at two Site Locations.[4] To mitigate these impacts to a less-than-significant level, Mitigation Measure **NOI-MM-4**, set forth below, would be implemented.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measure

NOI-MM-4: The use of large construction equipment (i.e., large bulldozer, caisson drill rig, and/or loaded trucks) shall be limited to a minimum of 80 feet away from the existing residences near proposed TCN Structure FF-33 (receptor 28) and the future residences near proposed TCN Structure NFF-20 (receptor 12B), if these residences are constructed and occupied at the time Project construction activities occurs.

Finding. These potential noise impacts would be mitigated by limiting certain construction equipment, as described above. For the reasons stated above and as set forth in the Draft EIR, Metro finds that, through implementation of Mitigation Measure **NOI-MM-4**, these impacts related to on-site construction vibrations would be reduced to a less-than-significant level. Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

6.6 TRIBAL CULTURAL RESOURCES

As discussed in Section IV.L of the Draft EIR, the Project could result in significant impacts related to tribal cultural resources with respect to the following significance threshold:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - (i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k); or
    - (ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

[4] Site Locations FF-33 and NFF-20 will experience vibrations above the human annoyance threshold.

Impacts. As discussed more fully in Section IV.L of the Draft EIR, the Site Locations may contain known or reasonably foreseeable resources determined by Metro to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1 (i.e., tribal cultural resources). As such, the Project may cause a substantial adverse change in the significance of a known tribal cultural resource with cultural value to a California Native American tribe or that is listed or eligible for listing in the California Register or in a local register. Therefore, Project impacts related to tribal cultural resources would be potentially significant.

Reference. Section IV.L, Tribal Cultural Resources, of the Draft EIR, pages IV.L-34 through IV.L-42.

Mitigation Measures

TCR-MM-1: **(Retain a Tribal Consultant and Qualified Archaeologist):** Prior to any ground-disturbing activities on the Site Locations associated with the Project Area, a tribal consultant and qualified archaeologist shall be retained to monitor ground-disturbing activities and ensure proper implementation of the Tribal Cultural Resources Monitoring and Mitigation Program (described in Mitigation Measure TCR-2, below).

Ground disturbing activities are defined as excavating, digging, trenching, drilling, tunneling, grading, leveling, removing asphalt, clearing, driving posts, augering, backfilling, blasting, stripping topsoil or a similar activity at a Site Location. A tribal consultant is defined as one who is on the Native American Heritage Commission (NAHC) Tribal Contact list. The tribal consultant will provide the services of a representative, known as a tribal monitor.

A qualified archaeologist is defined as one who meets the Secretary of the Interior's (SOI) Professional Qualifications Standards (PQS) for archaeology. The qualified archaeologist shall submit a letter of retention to Metro no fewer than 30 days before ground-disturbing activities commence. The letter shall include a resume for the qualified archaeologist that demonstrates fulfillment of the SOI PQS.

TCR-MM-2: **(Develop a Tribal Cultural Resource Mitigation and Monitoring Program):** Prior to any ground-disturbing activities within the Project Area, a Tribal Cultural Resource Mitigation and Monitoring Program (TCR MMP) shall be prepared by the qualified archaeologist. The TCR MMP shall incorporate the results of SWCA's Tribal Cultural Resources Assessment for the Los Angeles County Metropolitan Transportation Authority's Transportation Communication Network Project report, and reasonable and feasible recommendations from tribal parties resulting from consultation. The TCR MMP shall include provisions for avoidance of unanticipated discoveries and procedures for the preservation of unanticipated discoveries where possible.

The TCR MMP shall include, but not be limited to, provisions to conduct a worker training program, a monitoring protocol for ground-disturbing activities, discovery and processing protocol for inadvertent discoveries of tribal cultural resources, and

identification of a curation facility should artifacts be collected. The TCR MMP shall require monitoring of ground-disturbing activities at all Site Locations and will provide a framework for assessing the geoarchaeological setting to determine whether sediments capable of preserving tribal cultural resources are present, and include a protocol for identifying the conditions under which additional or reduced levels of monitoring (e.g., spot-checking) may be appropriate at any given Site Location. The duration and timing of the monitoring shall be determined based on the rate of excavation, geoarchaeological assessment, and, if present, the quantity, type, spatial distribution of the materials identified, and input of the tribal consultant or their designated monitor. During monitoring, daily logs shall be kept and reported to Metro on a monthly basis.

During ground-disturbing activities, the monitors shall have the authority to temporarily halt or redirect construction activities in soils that are likely to contain potentially tribal cultural resources, as determined by the qualified archaeologist in consultation with the tribal monitor. In the event that tribal cultural resources or potential tribal cultural resources are exposed during construction, work in the immediate vicinity of the find shall stop within a minimum of 25 ft or as determined by the qualified archaeologist in consultation with the tribal consultant based on the nature of the find and the potential for additional portions of the resource to remain buried in the unexcavated areas of the project site. The qualified archaeologist in consultation with the tribal consultant will evaluate the significance of the find and implement the protocol described in the TCR MMP before work can resume in the area surrounding the find that is determined to have sensitivity. Construction activities may continue in other areas in coordination with the qualified archaeologist and tribal consultant. Soils that are removed from the work site are considered culturally sensitive and will be subject to inspection on-site by the tribal and archaeological monitors. Provisions for inspection at an off-site location would be determined through consultation with the tribal and archaeological monitors, construction personnel, and Metro. Any tribal cultural resources that are not associated with a burial are subject to collection by the qualified archaeologist.

The TCR MMP shall also summarize the requirements for coordination with consulting tribal parties in the event of a tribal cultural resource or potential tribal cultural resource is inadvertently discovered, as well as the applicable regulatory compliance measures or conditions of approval for inadvertent discoveries, including the discovery of human remains, to be carried out in concert with actions described in the TCR MMP and treatment plan prepared in compliance with Mitigation Measure TCR-3. The TCR MMP shall be prepared in compliance with Public Resources Code Section 5024.1, Title 14 California Code of Regulations, Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1. The TCR MMP shall be submitted to Metro at least 30 days prior to initiating ground-disturbing activities.

TCR-MM-3: **(Treatment of Known Tribal Cultural Resources):** A treatment plan will be developed for any historical archaeological sites that may be adversely

affected/significantly impacted by the Project, including but not limited to CA-LAN-1575/H. The treatment plan will be developed based on the known constituents to guide the post-discovery process and initial treatment requirements upon discovery. The treatment plan will outline data recovery procedures to be followed and shall require controlled archaeological excavation within the first eight feet (ft) at all Site Locations proposed to be located within known tribal cultural resources, specifically an excavation unit measuring 3.28 ft by 3.28 ft across extending to a depth of at least 4.92 ft below the unpaved surface, followed by the use of a 4 inch hollow stem hand-auger to a total depth of at least 9.84 ft below the unpaved surface. Subsequent mechanical drilling will be conducted in approximately 1.64-ft increments to a depth of approximately 20 ft below the surface. Sediments from each of the 1.64-ft mechanical excavation levels will be inspected for the presence of Native American objects or evidence of a tribal cultural resource, and relevant environmental information obtained from the sediments will be recorded. The treatment plan will include provisions to allow for standard mechanical excavation to resume at levels above these depths in the event that sufficient evidence is identified to demonstrate that the sediments are more than 20,000 years old.

The treatment plan may be modified and updated depending on the nature of the discovery and consultation with the State Historic Preservation Office (SHPO) and consulting parties. The treatment plan would be developed so that treatment of historical resources meets the Secretary of the Interior's Standards and Guidelines (1983) for archaeological documentation, the California Office of Historic Preservation (OHP)'s Archaeological Resources Management Report, Recommended Contents and Formats (1989), the Advisory Council on Historic Preservation's publication Treatment of Archaeological Properties: A Handbook, and the Department of the Interior's Guidelines for Federal Agency Responsibility under Section 110 of the National Historic Preservation Act, and the Society for California Archaeology's Guidelines for Determining the Significance of and Impacts to Cultural Resources and Fieldwork and Reporting Guidelines for Archaeological, Historic, and Tribal Cultural Resources

Findings. With the implementation of Mitigation Measures **MM-TCR-1** through **MM-TCR-3**, impacts related to tribal cultural resources would be reduced to a less than significant level. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these impacts related to tribal cultural resources would be reduced to less-than-significant levels. For these impacts, Metro adopts CEQA Finding 1, as identified in Section 4 above and in Section 15091(a)(1) of the CEQA Guidelines.

7. ENVIRONMENTAL IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

Metro finds that, based upon substantial evidence in the record, as discussed below, the following impacts associated with the Project are less than significant, and no mitigation is required.

7.1 AESTHETICS

As discussed in Section IV.A of the Draft EIR, the Project would result in less-than-significant impacts related to aesthetics with respect to the following significance thresholds:

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; and
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

Impact. *Scenic Resources Within a Scenic Highway:* As evaluated in the Initial Study for the Project and discussed in Section IV.A of the Draft EIR, the Site Locations identified for the Project are located within property owned and operated by Metro along freeways and major streets within the City. Most of the Site Locations are located on vacant land with limited vegetation and are generally inaccessible to the public. In addition, the Site Locations are not adjacent to any state-designated scenic highways. Thus, the Project would not result in the removal of any structures or trees or be located within a state scenic highway that may be considered scenic resources. Therefore, impacts with respect to scenic resources within a state-designated scenic highway would be less than significant.

References. Section IV.A, Aesthetics, of the Draft EIR, pages IV.A-28 through IV.A-48. Appendix A.1, Initial Study, to the Draft EIR, pages 16–17.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Initial Study and Draft EIR, Metro finds that these aesthetic impacts related to scenic resources within a scenic highway would be less than significant.

Impact. *Light and Glare:* As discussed more fully in Section IV.A of the Draft EIR, none of the digital displays proposed for the Project would generate enough light to introduce a substantial light trespass at any nearby residential or other light-sensitive sites. Similarly, none of the displays would generate enough light to create a new source of glare on the roadway. Additionally, the incorporation of Project Design Feature AES-PDF-1 would require state of the art louvers or other equivalent design features to be incorporated into the design of TCN

Structures FF-13, FF-14, FF-25, FF-29, and FF-30 such that the light trespass illuminance at sensitive habitat at the proposed Bowtie State Park, at the mapped biological resources in the vicinity of TCN Structure FF-25, and at the ~~the adjacent residential zoned property and~~ Ballona Wildlife Reserve to the south of the Marina Freeway, west of Culver Boulevard, does not exceed 0.02 footcandles. Therefore, impacts with respect to light and glare would be less than significant.

Reference. Section IV.A, Aesthetics, of the Draft EIR, pages IV.A-28 through IV.A-48.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these aesthetic impacts related to light and glare would be less than significant.

7.2 AIR QUALITY

As discussed in Section IV.B of the Draft EIR, the Project would result in less-than-significant impacts related to air quality with respect to the following significance thresholds:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact. *Consistency with Air Quality Plan (Pollutant Emissions):* As discussed more fully in Section IV.B of the Draft EIR, Project construction emissions would not exceed SCAQMD's recommended significance thresholds for local emissions of NOx, CO, PM10, or PM2.5, and operational emissions of these pollutants would be less than significant. Therefore, the project would not significantly impact localized air quality, increase frequency or severity of an existing CO violation or contribute to new CO violations, or delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.

Reference. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to air quality plan consistency would be less than significant.

Impact. *Consistency with Air Quality Plan (AQMP Assumptions):* As described more fully in Section IV.B, Air Quality, Section IV.G, Greenhouse Gas Emissions, and Appendix A, Initial Study, of the Draft EIR, the project would not generate substantial long-term employment or residential population growth. Additionally, the Project would comply with all applicable regulatory standards required by SCAQMD, as well as the Metro Green Construction Policy. Finally, the Project would reduce VMT and related vehicular air emissions by removing a higher number of static displays than it will erect TCN Structures, reducing daily vehicle trips for maintenance. For these reasons, the Project would not exceed assumptions utilized in preparing the AQMP and therefore would not conflict with or obstruct implementation of SCAQMD's AQMP.

References. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61. Section IV.G, Greenhouse Gas Emissions, of the Draft EIR, pages IV.G-39 through IV.G-72. Appendix A, Initial Study, to the Draft EIR, pages 44-45.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to air quality plan consistency would be less than significant.

Impact. *Consistency with Air Quality Element of City's General Plan:* As discussed above and in Section IV.B of the Draft EIR, the Project will not generate VMT, increase the frequency or severity of an existing air quality violation or cause or contribute to new violations, or exceed State and federal air quality standards or delay timely attainment of air quality standards or interim emission reductions specified in the AQMP. The Project would not conflict with growth projections assumed by the AQMP and thus would be consistent with emissions forecasts in the AQMP. Furthermore, compliance with applicable regulatory requirements would prevent any significant air quality impacts. Thus, the Project would serve to implement goals, objectives, and policies of the City's Air Quality Element pertaining to the Project. Therefore, the Project will have a less-than-significant impact on the implementation of the air quality plan.

References. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61. Section IV.G, Greenhouse Gas Emissions, of the Draft EIR, pages IV.G-39 through IV.G-72. Appendix A, Initial Study, to the Draft EIR, pages 44-45.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to General Plan consistency would be less than significant.

Impact. *Increase in Non-Attainment Criteria Pollutants:* As discussed above and in Section IV.B of the Draft EIR, Project construction and operations would not result in significant regional or

localized emissions. Therefore, Project emissions would result in a less than significant air quality impact.

Reference. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to criteria pollutant emissions would be less than significant.

Impact. *Sensitive Pollutant Receptors:* As described more fully in Section IV.B of the Draft EIR, maximum construction emissions for criteria pollutants would not exceed SCAQMD thresholds at the closest off-site sensitive receptors. Additionally, Project construction would not result in a long-term source of Toxic Air Contaminants (TACs). Similarly, Project operation would not introduce any significant new sources of criteria pollutants, mobile-source CO emissions, or TACs. Therefore, because the Project would not involve substantial TAC sources and would be consistent with applicable CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or TACs that exceed the maximum incremental cancer risk or chronic hazard index, and potential impacts would be less than significant.

Reference. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61. Appendix A, Initial Study, to the Draft EIR, pages 32–35. Appendix C-2, Air Quality Worksheets and Modeling Output Files, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to sensitive pollutant receptors would be less than significant.

Impact. *Odors:* As described more fully in Section IV.B, Air Quality, and Chapter VI, Other CEQA Considerations, of the Draft EIR, and as evaluated in the Initial Study, Appendix A.1 to the Draft EIR, no objectionable odors are anticipated to adversely affect a substantial number of people as a result of either construction or operation of the Project. Therefore, the potential odor impacts during construction and operation of the Project would be less than significant.

Reference. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61. Appendix A, Initial Study, to the Draft EIR, pages 32–35.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these air quality impacts related to odors would be less than significant.

7.3 BIOLOGICAL RESOURCES

As discussed in Section IV.C of the Draft EIR, the Project would result in less-than-significant impacts related to biological resources with respect to the following significance threshold:

- Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands).

Impact. *Consistency with Local Policies and Ordinances:* As discussed more fully in Section IV.C, Biological Resources, and Chapter VI, Other CEQA Considerations, of the Draft EIR, and evaluated in the Initial Study, Appendix A.1 to the Draft EIR, the proposed Site Locations do not include any protected trees or shrubs and no trees would be removed. Any trees in the vicinity of the Site Locations would be avoided and preserved in place. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources. Any trees in the vicinity of the Site Locations would be avoided and preserved in place. As such, the Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, impacts related to a conflict with any local policies or ordinances protecting biological resources would be less than significant.

References. Section IV.C, Biological Resources, of the Draft EIR, pages IV.B-32 through IV.B-61. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-18. Appendix A.1, Initial Study, to the Draft EIR, pages 22–25.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these biological resources impacts related to consistency with local policies and ordinances would be less than significant.

7.4 CULTURAL RESOURCES

As discussed in Section IV.D of the Draft EIR, the Project would result in less-than-significant impacts related to cultural resources with respect to the following significance threshold:

- Disturb any human remains, including those interred outside of dedicated cemeteries.

Impact. As discussed in Section IV.D, Cultural Resources, Section VI, Other CEQA Considerations, and Appendix A, Initial Study, of the Draft EIR, the Site Locations for the TCN Structures are located within urbanized areas of the City that have been subject to previous grading and development. No known traditional burial sites have been identified on the Site Locations. Nevertheless, as the Project would require excavation at depths of up to 50 feet, the

potential to uncover existing but undiscovered human remains exists. If human remains are discovered during Project construction, work in the immediate vicinity of the construction area for the TCN Structure would be halted, and the County Coroner, construction manager, and other entities would be notified per California Health and Safety Code Section 7050.5. In addition, disposition of the human remains and any associated grave goods would occur in accordance with PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e), which requires that work stop near the find until a coroner can determine that no investigation into the cause of death is required and if the remains are Native American. Specifically, in accordance with CEQA Guidelines Section 15064.5(e), if the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission who shall identify the most likely descendent. The most likely descendent may make recommendations regarding the treatment of the remains and any associated grave goods in accordance with PRC Section 5097.98. Compliance with these regulatory standards would ensure appropriate treatment of any potential human remains unexpectedly encountered during grading and excavation activities.

References. Section IV.D, Cultural Resources, of the Draft EIR, pages IV.D-32 through IV.D-64. Section VI, Other CEQA Considerations, of the Draft EIR, page VI-18. Appendix A, Initial Study, to the Draft EIR, pages 26–27.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these cultural resources impacts related to human remains would be less than significant.

7.5 ENERGY

As discussed in Section IV.E of the Draft EIR, the Project would result in less-than-significant impacts related to energy with respect to the following significance thresholds:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; and
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact. *Energy Consumption:* As discussed more fully in Section IV.E of the Draft EIR, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, and unnecessary consumption of energy resources during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or require additional capacity. The Project's energy usage during peak and base periods would also be consistent with electricity future projections for the region. As also discussed, gasoline fuel usage for the region is expected to be on the decline over the next 10 years. The Project's transportation fuel consumption is also expected to decline based on more stringent CAFE fuel economy standards. As transportation fuel supply is not expected to decrease significantly over

this same period, supplies would be sufficient to meet Project demand. Therefore, electricity generation capacity and supplies of transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. With respect to operation, the Project would comply with existing energy efficiency requirements, such as CALGreen Code, as well as include energy conservation measure requirements. For all the reasons set forth above and in the Draft EIR, the Project's energy demands would not cause wasteful, inefficient, or unnecessary use of energy. Therefore, this Project impact related to energy use would be less than significant with respect to both construction and operation.

References. Section IV.E, Energy, of the Draft EIR, pages IV.E-18 through IV.E-36. Appendix F, Energy Calculations, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these energy impacts related to energy consumption would be less than significant.

Impact. *Consistency with Energy Plans:* The energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2019 CALGreen Code, Metro's Green Construction Policy, Metro's CAAP the City of Los Angeles Green Building Code, City of LA Green New Deal, and SCAG's 2020–2045 RTP/SCS. As these conservation policies would be incorporated as part of the Project, the Project would not conflict with applicable plans for renewable energy or energy efficiency. Regarding transportation uses, the Project would not generate trips or VMT on a regular basis. The removal of existing static displays would result in a net reduction in maintenance trips and VMT in comparison to the Project. In addition, the TCN Structures would relay traffic information to the public such as traffic congestion events and provide travel alternatives to maximum efficiency of the congested road network reducing fuel consumption. Further, the TCN Structures would provide off-site advertising create funds for new and expanded transportation programs including the potential to fund GHG reduction measures such as bus electrification programs and programs to further improve the experience for bus passengers. While these actions may not directly reduce VMT, the increase in efficiency of the roadway would reduce travel and delay times throughout the region. In addition, vehicle trips generated during Project operations would comply with CAFE fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations reducing unnecessary energy consumption. For these reasons, the Project would not conflict with or obstruct adopted energy conservation plans or violate State or local energy standards for renewable energy or energy efficiency. Therefore, Project impacts related to consistency with renewable energy or energy efficiency plans would be less than significant.

Reference. Section IV.E, Energy, of the Draft EIR, pages IV.E-18 through IV.E-36.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these energy impacts related to energy plan consistency would be less than significant.

7.6 GEOLOGY AND SOILS

As discussed in Section IV.F of the Draft EIR, the Project would result in less-than-significant impacts related to geology and soils with respect to the following significance thresholds:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42;
    - (ii) Strong seismic ground shaking; or
    - (iii) Seismic-related ground failure, including liquefaction;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site:
    - Lateral spreading;
    - Subsidence;
    - Liquefaction; or
    - Collapse; and
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

Impact. *Earthquake Faults:* As discussed in Section IV.F of the Draft EIR and the Geology and Soils Evaluation included as Appendix G of the Draft EIR, no known active or potentially active faults underlie the Site Locations. In addition, the Site Locations are not located within a state-designated Alquist-Priolo Earthquake Fault Zone. Each Site Location is between 0.25 mile and 6 miles from its nearest fault, and the nearest fault varies by Site Location. The potential for surface rupture due to faulting occurring beneath the Site Locations is considered low. Additionally, ground disturbance associated with the removal of static displays would be temporary and minimal. Therefore, impacts associated with surface rupture from a known earthquake fault would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to earthquake faults would be less than significant.

Impact. *Strong Seismic Ground Shaking:* As described in Section IV.F of the Draft EIR and the Geology and Soils Evaluation included as Appendix G of the Draft EIR, the Site Locations are located within the seismically active region of Southern California and would potentially be subject to strong seismic ground shaking if a moderate to strong earthquake occurs on a local or regional fault. However, State and local codes require that structures are designed and constructed to reduce risk of collapse during an earthquake. Additionally, compliance with Project Design Feature GEO-PDF-1, which would require all development activities to incorporate various geotechnical recommendations, will reduce these risks. Further, the Project would not involve any construction or operations activities that would create unstable seismic conditions or stresses in the earth's crust. As discussed above, there are no known active faults underlying the Project site. Therefore, impacts associated with strong seismic ground shaking would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to seismic ground shaking would be less than significant.

Impact. *Seismic-Related Ground Failure:* As discussed in Section IV.F of the Draft EIR and the Geology and Soils Evaluation included as Appendix G of the Draft EIR, site-specific liquefaction analyses would be required by Project Design Feature GEO-PDF-1 in order to determine if the site soils would be susceptible to liquefaction during the design-based seismic event, which is the event a structure is designed to withstand without collapsing. If the sites are susceptible to liquefaction, the proposed TCN Structures would be supported by a deep foundation system consisting of caissons or piles. Additionally, the Project would be designed in accordance with the MRDC and Los Angeles Building Code, which requires implementation of engineering techniques to minimize ground failure hazards. Lastly, ground disturbance associated with the removal of static displays would be temporary and minimal. As such, the Project would not exacerbate existing environmental conditions or cause or accelerate geologic hazards related to liquefaction. Therefore, impacts associated with seismic-related ground failure, including liquefaction, would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to seismic ground failure would be less than significant.

Impact. *Erosion and Soil Loss:* The TCN Structures would be constructed with the use of a drill rig that would drill a hole up to 50 feet in depth on an approximately 10-foot by 10-foot area, depending on soil conditions and size of the digital display. As such, grading activities and potential soil erosion and loss of topsoil would be limited. In addition, all grading activities would require review and approval of a final site-specific geotechnical report by the Metro Capital Engineering Group and/or LADBS, which would include requirements and standards designed to ensure that substantial soil erosion does not occur. Furthermore, on-site grading and site preparation would comply with all applicable provisions of LAMC Chapter IX, Article 1, which addresses grading, excavations, and fills. Lastly, ground disturbance associated with the removal of static displays would be temporary and minimal. Therefore, with compliance with regulatory requirements, the Project would not result in substantial soil erosion or the loss of topsoil. As such, this impact related to geology and soils would be less than significant.

Reference. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to soil loss would be less than significant.

Impact. *Soil Instability – Liquefaction and Lateral Spreading:* As discussed more in Section IV.F of the Draft EIR and the Geology and Soils Evaluation, the Project's impacts the Site Locations are susceptible to lateral spreading wherever they are susceptible to liquefaction, as liquefaction-related effects include lateral spreading. As discussed above, Project Design Feature GEO-PDF-1 will require site-specific liquefaction analyses to avoid ground failure. The Project would not cause or accelerate liquefaction. Therefore, impacts related to liquefaction and lateral spreading would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to soil instability would be less than significant.

Impact. *Soil Instability – Subsidence:* As discussed more in Section IV.F of the Draft EIR and the Geology and Soils Evaluation, no large-scale extraction of groundwater, gas, oil, or geothermal energy currently occurs or is planned at the Site Locations. Therefore, the potential for ground subsidence due to the withdrawal of fluid or gas at the Site Locations are low. Project excavations for placement of the TCN Structures would extend to a maximum depth of approximately 50 feet. As discussed in the Geology and Soils Evaluation, the historic high groundwater levels vary according to the location of each TCN Structure and may be as shallow as 5 feet below ground surface. Although dewatering operations may be required during construction, such activities would be limited and temporary and would not involve large-scale water extraction. Lastly, ground disturbance associated with the removal of static displays would be temporary and minimal. As such, the Project would not be located on or exacerbate a geologic unit or soil that is unstable, which could potentially result in subsidence. Impacts related to subsidence would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to soil instability would be less than significant.

Impact. *Soil Instability – Collapse:* As discussed in Section IV.F of the Draft EIR and the Geology and Soils Evaluation, the fill soil composition and depth that underlie the proposed TCN Structures vary by Site Location. The proposed TCN Structures would thus be supported by foundation systems according to the soil type, with deep foundation systems potentially necessary at certain sites. Depending on the geologic materials at each individual site, the foundation system may derive its bearing capacity from native alluvial soils, and/or bedrock. Fill materials are not considered suitable for support of the recommended foundation system and would not be used. These recommendations would be incorporated in accordance with Project Design Feature GEO-PDF-1. In addition, the Project would be required to provide a final, site-specific geotechnical report that would include the preliminary recommendations from the Geology and Soils Evaluation as well as final recommendations that would be enforced by the Metro Capital Engineering Group and/or LADBS. Lastly, ground disturbance associated with the removal of static displays would be temporary and minimal. As such, the Project would not be located on or exacerbate a geologic unit or soil that is unstable or that would become unstable as a result of the Project and potentially result in collapse. Impacts associated with collapsible soils would be less than significant.

Reference. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these geology and soils impacts related to soil instability would be less than significant.

Impact. *Expansive Soils:* As discussed in Section IV.F of the Draft EIR and the Geology and Soils Evaluation, the on-site geologic materials at the Site Locations are in the low to high expansion range. Per Project Design Feature GEO-PDF-1, it is anticipated that where structurally necessary, the proposed TCN Structures would be supported by a deep foundation system, consisting of caissons or piles. Depending on the geologic materials encountered at each individual site, the foundation system may derive its bearing capacity from native alluvial soils, and/or bedrock. Fill materials are not considered suitable for support of the recommended foundation system and would not be used. Lastly, ground disturbance associated with the removal of static displays would be temporary and minimal. With implementation of Project Design Feature GEO-PDF-1, potential impacts associated with expansive soils would be less than significant.

References. Section IV.F, Geology and Soils, of the Draft EIR, pages IV.F-46 through IV.F-56. Appendix G, Geology and Soils Evaluation, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of project design features as well as applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts related to expansive soils would be less than significant.

7.7 GREENHOUSE GAS EMISSIONS

As discussed in Section IV.G of the Draft EIR, the Project would result in less-than-significant impacts related to greenhouse gas emissions with respect to the following significance thresholds:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Impact. The Project would result in direct and indirect GHG emissions generated by different types of emissions sources, including construction, display operations, vehicles accessing the Project site, and off-road equipment. As discussed more fully in Section IV.G of the Draft EIR, when taking into consideration implementation of the Metro 2019 CAAP GHG reduction measures, as well as the applicable requirements set forth in Metro's Green Construction Policy and the City of Los Angeles Green Building Code, and full implementation of current State mandates, the Project's GHG emissions for the Project in 2025 would equal 35 $MTCO_2e$ per year (amortized over 30 years) during construction and 479 $MTCO_2e$ per year during operation of the Project with a combined total of approximately 514 $MTCO_2e$ per year.

CEQA Guidelines Section 15064.4(b)(2) allows a lead agency to determine a threshold of significance that applies to the Project, and, accordingly, the threshold of significance applied here is whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Project, the applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2020–2045 RTP/SCS, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals. This analysis also considers qualitative consistency with regulations or requirements adopted by AB 32's *2008 Climate Change Scoping Plan* and subsequent updates, Metro's 2019 CAAP and the City of LA's Green New Deal.

As described in Section IV.G of the Draft EIR, the Project's features, and design render it consistent with Statewide, regional, and local climate change mandates, plans, policies, and recommendations. The Project's signage would assist with reducing congestion and delay times of motorists by providing traffic information and alternative routes which would result in a reduction in GHG emissions. Further, the TCN Structures would provide off-site advertising that would direct funds to new and expanded transportation programs including the potential to fund GHG reduction measures such as bus electrification programs which would be consistent with goals of SCAG's 2020-2045 RTP/SCS. The plan consistency analysis provided in the Draft EIR demonstrates that the Project complies with or exceeds the plans, policies, regulations, and GHG reduction actions/strategies outlined in CARB's *2008 Climate Change Scoping Plan* and subsequent updates, SCAG's 2020–2045 RTP/SCS, City of Los Angeles' Green New Deal and Metro's 2019 CAAP. Thus, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, because the Project would be consistent with these plans, policies, and regulations, the Project's incremental increase in GHG emissions as described above would not result in a significant impact on the environment. Therefore, Project impacts related to GHG emissions would be less than significant.

References. Section IV.G, Greenhouse Gas Emissions, of the Draft EIR, pages IV.G- through IV.G-72. Appendix C-3, Greenhouse Gas Worksheets and Modeling Output Files, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with the incorporation of applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that this impact related to greenhouse gas emissions would be less than significant.

7.8 HAZARDS AND HAZARDOUS MATERIALS

As discussed in Section IV.H of the Draft EIR, the Project would result in less-than-significant impacts related to hazards and hazardous materials with respect to the following significance thresholds:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; and
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan

Impact. *Transport, Use, and Disposal of Hazardous Materials:* As discussed in Section IV.H, Hazards and Hazardous Materials, Section VI, Other CEQA Considerations, and Appendix A, Initial Study, of the Draft EIR, the Project could include the routine use of hazardous materials such as fuel and oils associated with construction equipment, coatings, paints, adhesives, and cleaners. Project Operations would involve the routine use of small quantities of potentially hazardous materials typical of those used for maintenance of TCN Structures. Such use would be consistent with that currently occurring within the vicinity of the Site Locations. All potentially hazardous materials used during construction and operations would be used and disposed of in accordance with manufacturers' specifications and instructions. Additionally, the transport, use, and storage of hazardous materials during construction and operations would be required to comply with all applicable State and federal laws. As such, with compliance with all applicable local, state, and federal laws and regulations relating to environmental protection and the management of hazardous materials, impacts associated with the routine transport, use, or disposal of hazardous materials during construction and operation of the Project would be less than significant.

References. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49. Section VI, Other CEQA Considerations, pages VI-19 through VI-20. Appendix A, Initial Study, to the Draft EIR, pages 32–35.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hazards and hazardous materials impacts related to the transport, use, and disposal of hazardous materials would be less than significant.

Impact. *Release of Methane Gas:* As discussed in Section IV.H of the Draft EIR, several Site Locations are located zones where there may be subsurface methane gas produced from naturally occurring petroleum fields. The Project would comply with all applicable regulations regarding methane. When properly implemented, compliance measures would reduce methane-related risks to a less than significant level. As such, with regulatory compliance, the Project would not exacerbate the risk of upset and accident conditions associated with methane. Therefore, impacts related to methane would be less than significant.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hazards and hazardous materials impacts related to the release of methane gas would be less than significant.

Impact. *Release of Asbestos-Containing Materials:* As discussed in Section IV.H of the Draft EIR, asbestos-containing materials (ACMs) may be present in the static displays that would be removed as part of the Project. The Project would comply with all applicable regulatory measures regarding ACMs. With compliance with applicable regulations and requirements, Project construction activities would not expose people to a substantial risk resulting from the release of asbestos fibers into the environment. As such, with regulatory compliance, the Project would not exacerbate the risk of upset and accident conditions associated with ACMs. Therefore, impacts related to ACMs would be less than significant.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hazards and hazardous materials impacts related to the release of asbestos-containing materials would be less than significant.

Impact. *Release of Lead-Based Paint:* As discussed in Section IV.H of the Draft EIR, lead-based paint (LBP) may be present in the approximately 200 static displays (at minimum) to be taken down as part of the Project. The Project would comply with all applicable regulatory

measures regarding LBP. With compliance with applicable regulations and requirements, Project construction activities would not expose people to a substantial risk resulting from the release of LBP into the environment. As such, with regulatory compliance, the Project would not exacerbate the risk of upset and accident conditions associated with LBPs. Therefore, impacts related to LBP would be less than significant.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hazards and hazardous materials impacts related to the release of lead-based paints would be less than significant

Impact. *Release of Hazardous Materials (During Project Operation):* As discussed in Section IV.H of the Draft EIR, Project operation would involve the routine use of small quantities of potentially hazardous materials. Such use would be consistent with that currently occurring within the vicinity of the Site Locations. In addition, all hazardous materials used at the Site Locations during operation would be used, stored, and disposed of in accordance with all applicable federal, state and local requirements. Therefore, impacts related to the release of hazardous materials during operation would be less than significant.

Reference. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hazards and hazardous materials impacts related to the release of hazardous materials during Project operations would be less than significant.

Impact. *Emergency Plan Interference:* As discussed in Section VI, Other CEQA Considerations, Appendix A, Initial Study, and Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, the Project would involve construction of TCN Structures and takedown of existing static displays on a variety of locations on Metro property within the City and would, therefore, be located near several disaster routes designated by the City's Safety Element. However, Project construction would not result in interference with adopted emergency plans because temporary construction barricades or other obstructions would be subject to the City's permitting process, which requires a traffic control plan subject to City review and approval. Development and implementation of these plans for all construction activity would minimize potential impacts associated with emergency procedures. During operation, the Project would not require the

permanent closure of any local public or private streets and would not impede emergency vehicle access to the Site Locations or surrounding area Therefore, with compliance with applicable regulatory requirements, the Project would not impede emergency access within the Site Locations or vicinity that could cause an impediment along City designated disaster routes such that the Project would impair the implementation of the City's emergency response plan. Furthermore, one of the primary benefits of the TCN Program is to enhance communication during emergency events. Therefore, impacts related to the implementation of the City's emergency response plan would be less than significant.

References. Section IV.H, Hazards and Hazardous Materials, of the Draft EIR, pages IV.H-20 through IV.H-49. Section VI, Other CEQA Considerations, pages VI-19 through VI-20. Appendix A, Initial Study, to the Draft EIR, pages 32–35.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the EIR, Metro finds that these hazards and hazardous materials impacts related to emergency plan interference would be less than significant.

7.9 HYDROLOGY AND WATER QUALITY

As discussed in the Initial Study, Appendix A.1 to the Draft EIR, the Project would result in less-than-significant impacts related to hydrology and water quality with respect to the following significance thresholds:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - (i) Result in substantial erosion or siltation on- or off-site;
    - (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - (iv) Impede or redirect flood flows; or
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact. *Surface and Groundwater Quality:* As discussed more fully in Section VI, Other CEQA Considerations, and Appendix A.1, Initial Study, of the Draft EIR, with the implementation of regulatory requirements and BMPs, Project construction would not result in the discharge of potential pollutants into stormwater runoff for all Site Locations, including those adjacent to the LA River and Ballona Wetlands. Furthermore, the Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirement associated with groundwater protection for all Site Locations including those adjacent to the LA River and Ballona Wetlands. Similarly, all hazardous materials used at the Site Locations during operation would be used in accordance with manufacturers specifications and regulatory requirements. Therefore, the Project would not result in discharge that would violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface water quality or groundwater quality.

References. Chapter VI, Other CEQA Considerations, to the Draft EIR, pages VI-20 through VI-23. Appendix A, Initial Study, to the Draft EIR, pages 36–41.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hydrology and water quality impacts related to surface and groundwater quality would be less than significant.

Impact. *Groundwater Recharge:* Due to the limited size of the holes that would be drilled and the temporary nature of any dewatering, the Project would not substantially impact groundwater supplies or groundwater recharge during construction. Therefore, the Project's temporary construction activities would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basins for all Site Locations, including those adjacent to the LA River and Ballona Wetlands. Additionally, the amount of impervious area created by the Project would be minimal, as each of the 56 proposed TCN Structures would be constructed on an approximately 10-foot by 10-foot area. Furthermore, the Project would not include the installation of water supply wells. Therefore, Project operations would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basins. Thus, impacts with regard to groundwater recharge during construction and operation would be less than significant.

References. Chapter VI, Other CEQA Considerations, to the Draft EIR, pages VI-20 through VI-23. Appendix A, Initial Study, to the Draft EIR, pages 36–41.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hydrology and water quality impacts related to groundwater recharge would be less than significant.

Impact. *Erosion, Siltation, and Runoff:* Each TCN Structure would be constructed on an approximately 10-foot by 10-foot area, and would not be located within a stream or river. In addition, as discussed above, grading and trenching activities associated with construction of the TCN Structures would be limited. As discussed above, during construction, the Project would implement BMPs and erosion control measures in accordance with regulatory requirements for all Site Locations, including those adjacent to the LA River and Ballona Wetlands. Such BMPs and erosion control measures would also control runoff. Additionally, the impervious area created by the TCN Structures would be minimal and would not alter existing drainage patterns in the area such that substantial erosion or siltation would occur. Therefore, impacts with regard to erosion and siltation as well as runoff during construction and operation would be less than significant.

References. Chapter VI, Other CEQA Considerations, to the Draft EIR, pages VI-20 through VI-23. Appendix A, Initial Study, to the Draft EIR, pages 36–41.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hydrology and water quality impacts related to erosion, siltation, and runoff would be less than significant.

Impact. *Flooding:* The TCN Structures would be constructed on an approximately 10-foot by 10-foot area, creating an impervious area that would not be large enough to substantially impede, alter or redirect flood flows. Additionally, the use of hazardous materials during construction and operations would comply with manufacturers' specifications and instructions and regulatory requirements. Therefore, the Project would not risk release of pollutants due to project inundation, and impacts with regard to the release of pollutants due to project inundation would be less than significant.

References. Chapter VI, Other CEQA Considerations, to the Draft EIR, pages VI-20 through VI-23. Appendix A, Initial Study, to the Draft EIR, pages 36–41.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hydrology and water quality impacts related to flooding would be less than significant.

Impact. *Consistency with Water Plans:* During construction, the implementation of BMPs and erosion control measures in accordance with regulatory requirements would target any pollutants that could potentially be carried in stormwater runoff. Furthermore, any hazardous materials used during construction and operation (for maintenance) would be used in accordance with manufacturer's specifications and regulatory requirements. In addition, the minimal excavation required for the TCN Structures would not substantially impact groundwater, and in the event dewatering is required, such dewatering would occur in accordance with regulatory requirements. As such, the Project would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. Therefore, impacts with regard to a water quality control plan or a sustainable groundwater management plan would be less than significant.

References. Chapter VI, Other CEQA Considerations, to the Draft EIR, pages VI-20 through VI-23. Appendix A, Initial Study, to the Draft EIR, pages 36–41.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these hydrology and water quality impacts related to Water Quality Control Plans and Sustainable Groundwater Management Plans would be less than significant.

7.10 LAND USE AND PLANNING

As discussed in Section IV.I of the Draft EIR, the Project would result in less-than-significant impacts related to land use and planning with respect to the following significance threshold:

- Physically divide an established community.

Impact. *Physical Division of Community:* As discussed further in Section IV.I, Land Use and Planning, Chapter VI, Other CEQA Considerations, and Appendix A.1, Initial Study, to the Draft EIR, the Project would involve construction of TCN Structures and takedown of existing static displays on a variety of locations on Metro property within the City. The TCN Structures would be constructed on a 10-foot by 10-foot area, and, therefore, the area of disturbance for each TCN Structure would be minimal. In addition, the Project does not include buildings or large infrastructure improvements (such as a freeway) that could divide the existing surrounding community. Therefore, as determined in the Initial Study, the Project would not physically divide an established community. As such, these impacts would be less than significant.

References. Section IV.I, Land Use and Planning, of the Draft EIR, page IV.I-14. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-23. Appendix A.1, Initial Study, to the Draft EIR, pages 41–42.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these land use and planning impacts related to physical division of an established community would be less than significant.

7.11 MINERAL RESOURCES

As discussed in Chapter VI of the Draft EIR, the Project would result in less-than-significant impacts related to mineral resources with respect to the following significance thresholds:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Impact. *Availability of Known Valuable Resources:* As discussed further in Chapter VI, Other CEQA Considerations, and Appendix A.1, Initial Study, to the Draft EIR, some of the Site Locations are mapped within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present, a mineral producing area as classified by the California Geological Survey, and a City-designated oil field or oil drilling area. However, no mineral extraction operations currently occur at the Site Locations for the TCN Structures, nor are any such operations proposed as part of the Project. In addition, the TCN Structures would be constructed on a 10-foot by 10-foot area located adjacent to already developed roadways and the Zoning Ordinance enabling the review and approval of Site Locations for TCN Structures would further limit the locations for development. As such, these impacts would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-23. Appendix A.1, Initial Study, to the Draft EIR, pages 42–43.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to mineral resources related to the availability of known valuable mineral resources would be less than significant.

Impact. *Locally-Important Recovery Sites:* For the same reasons discussed above with respect to the availability of known valuable mineral resources, these impacts would be less than significant..

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-23. Appendix A.1, Initial Study, to the Draft EIR, pages 42–43.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these impacts to mineral resources related to the availability of locally-important mineral resource recovery sites would be less than significant.

7.12 NOISE

As discussed in Section IV.J of the Draft EIR, the Project would result in less-than-significant impacts related to noise with respect to the following significance thresholds:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

Impact. *Increased Ambient Noise Levels (Off-Site Construction):* As discussed in Section IV.J of the Draft EIR, the major noise sources associated with off-site construction trucks would be from the material delivery/concrete/haul trucks, which would travel between the Site Locations and the nearest freeway ramps. Project construction would generate a maximum of five trucks per day. Noise generated by these trucks would be well below the existing ambient noise levels along the roadways between the Site Locations and the nearest freeway. Therefore, temporary noise impacts from of-site construction traffic would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to off-site construction would be less than significant.

Impact. *Increased Ambient Noise Levels (Operation):* As discussed in Section IV.J of the Draft EIR, Project operations would not generate any on-site noise or significant vehicle trips. Vehicle trips would only occur occasionally for maintenance activities as needed. As such, Project operations would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the City's general plan or noise ordinance, or applicable standards of other agencies. Therefore, the Project's operational noise impacts from on- and off-site sources would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to Project operations would be less than significant.

Impact. *Vibrations (Building Damage from On-Site Construction):* As discussed in Section IV.J of the Draft EIR, the Project would generate groundborne construction vibration. The FTA has published standard vibration velocities for various construction equipment operations. The highest vibration generation would occur during the drilling for the structure foundation and would remain well below the most stringent vibration thresholds. In addition, the removal of the existing static displays would not require the use of large earthmoving equipment. Therefore, vibration associated with the existing static displays removal (e.g., a mobile crane, container truck and small backhoe) would be well below the building damage significance threshold. Therefore, the on-site vibration impacts during construction of the Project, pursuant to the significance criteria for building damage, would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to on-site construction vibrations would be less than significant.

Impact. *Vibrations (Off-Site):* According to FTA data, "[i]t is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads." Therefore, vibration generated by construction trucks traveling along the anticipated haul routes would be well below both the most stringent building damage criterion and the applicable human annoyance criterion. As such, the Project's vibration impact from off-site construction activities (i.e., construction trucks traveling on public roadways) would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to off-site vibrations would be less than significant.

Impact. *Vibrations (Operation):* As discussed in Section IV.J of the Draft EIR, the Project operation would not generate any significant vibration sources. Therefore, operation of the Project would not result in the generation of excessive groundborne vibration levels that would be perceptible in the vicinity of the Project Site. As such, vibration impacts associated with operation of the Project would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to Project operations would be less than significant.

Impact. *Airport Noise:* Several Site Locations are located within two miles of a public airport. However, there are no people residing in or working at the TCN Structures, which would be exposed to aircraft noise. Therefore, the Project would not expose people to excessive airport noise levels, and noise impacts would be less than significant.

Reference. Section IV.J, Noise, of the Draft EIR, pages IV.J-26 through IV.J-49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these noise impacts related to airport noise would be less than significant.

7.13 POPULATION AND HOUSING

As discussed in Chapter VI of the Draft EIR, the Project would result in less-than-significant impacts related to population and housing with respect to the following significance threshold:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact. *Population Growth:* While construction of the Project would create temporary construction-related jobs, the construction workers would likely be hired from the large, highly mobile regional construction work force already living and working within the Los Angeles

metropolitan region that moves from project to project. The work requirements of most construction projects are highly specialized such that construction workers remain at a job site only for the time in which their specific skills are needed to complete a particular phase of the construction process. Typically, construction workers pass through various development projects on an intermittent basis as their particular trades are required. Given the short duration of the work for construction of each TCN Structure and takedown of an existing static display, and the large size and mobility of the construction labor pool that can be drawn upon in the region, construction workers would not be expected to relocate their residences within this region or move from other regions into this region in response to the short-term Project-related construction employment opportunities and, therefore, no new permanent residents would be generated during construction of the Project. Additionally, while the TCN Program operations could result in additional employment, the additional employees would not be substantial in number and would likely already live in the region. As such, Project operations would not induce substantial unplanned population growth. Therefore, the Project's impacts relating to substantial population growth would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-24. Appendix A.1, Initial Study, to the Draft EIR, pages 44–45.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these population and housing impacts related to population growth would be less than significant.

7.14 PUBLIC SERVICES

As discussed in Chapter VI of the Draft EIR, the Project would result in less-than-significant impacts related to public services with respect to the following significance threshold:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection;
    - Police protection;
    - Schools;
    - Parks;
    - Other public facilities.

Impact. *Public Facilities:* Due to the small size of the construction areas and limited duration of construction activities, construction of the Project would generate minimal demand for police and fire protection services. In addition, construction workers would not be expected to relocate

their residences within this region or move from other regions into this region and thus would not generate a demand for additional schools, parks or libraries. As such, construction of the Project would not result in a demand for new fire facilities, police facilities, schools, parks, or other public facilities such as libraries, the construction of which could cause significant impacts. In addition, while the TCN Program could result in additional employees associated with operation of the Program, the additional employees would not be substantial in number and would likely already live in the region. As such, operation of the Project would not result in the demand for new fire facilities, police facilities, schools, parks, or other public facilities such as libraries, the construction of which could cause significant impacts. Therefore, impacts associated with public services would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-25. Appendix A.1, Initial Study, to the Draft EIR, pages 45–46.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these public services impacts would be less than significant.

7.15 RECREATION

As discussed in Chapter VI of the Draft EIR, the Project would result in less-than-significant impacts related to recreation with respect to the following significance thresholds:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact. *Increased Facility Use:* As discussed more in Chapter VI, Other CEQA Considerations, and Appendix A.1, Initial Study, of the Draft EIR, the Project does not propose the development of residential uses, which would create a demand on nearby parks or recreational facilities. Additionally, the Project would not result in a substantial increase in new employees within the region. Therefore, the Project would not substantially increase the demand for offsite public parks and recreational facilities such that substantial physical deterioration of those facilities would occur or be accelerated. These impacts would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-25. Appendix A.1, Initial Study, to the Draft EIR, page 47.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these recreation impacts related to increased recreational facility use would be less than significant.

Impact. *New/Expanded Facilities:* As discussed more in Chapter VI, Other CEQA Considerations, and Appendix A.1, Initial Study, of the Draft EIR, the Project does not include recreational facilities. Additionally, as discussed above, the Project does not include residential uses that would result in the increased use of existing facilities. Thus, the Project would not necessitate construction of new facilities. These impacts would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, page VI-25. Appendix A.1, Initial Study, to the Draft EIR, page 47.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these recreation impacts related to new or expanded recreational facilities would be less than significant.

7.16 TRANSPORTATION

As discussed in Section IV.K of the Draft EIR, the Project would result in less-than-significant impacts related to transportation with respect to the following significance thresholds:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and
- Result in inadequate emergency access.

Impact. *Consistency with Programs, Plans, Ordinances, and Policies:* The programs, plans, ordinances, and policies applicable to the Project include the Metro 2028 Vision Plan, the 2020-2045 RTP/SCS, the Mobility Plan, the LAMC, LADOT's Vision Zero Program, the Health and Wellness Element of the Plan for a Healthy Los Angeles, the California Vehicle Code, and the California Outdoor Advertising Permit Requirements. As discussed more fully in Section IV.K, Transportation, Section IV.B, Air Quality, and Appendix I, Land Use, of the DEIR, the Project would not conflict with any of these programs, plans, ordinances, or policies. Therefore, the Project's impacts related to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities is less than significant.

References. Chapter IV.K, Transportation, of the Draft EIR, pages IV.K-10 through IV.K-23. Section IV.B, Air Quality, of the Draft EIR, pages IV.B-32 through IV.B-61. Appendix I, Land Use, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these transportation impacts related to program, plan, ordinance, and policy consistency would be less than significant.

Impact. *Geometric Design Features and Incompatible Uses:* The digital display faces of the TCN Structures would use LED lighting with a daytime maximum of up to 6,000 candelas and 300 maximum candelas at nighttime, depending on the Site Location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and in turn would create a sharper image. Further, the digital displays would be set to refresh every 8 seconds and would transition instantly with no motion, moving parts, flashing, or scrolling messages. Illumination of the digital displays would conform to applicable Federal and State regulations for signs oriented toward roadways and freeways. Thus, as described more fully in Section IV.K, Transportation, and Appendix K, Transportation and Traffic Safety Review, of the Draft EIR, Project operation would not create a dangerous distraction for drivers. Based on the facts above and in the Draft EIR, Project impacts relating to hazards from geometric design features or incompatible uses would be less than significant.

References. Chapter IV.K, Transportation, of the Draft EIR, pages IV.K-10 through IV.K-23. Appendix K, Transportation and Traffic Safety Review, to the Draft EIR.

Mitigation Measures. These impacts would be less than significant with compliance with applicable laws and regulations and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these transportation impacts related to geometric design features and incompatible uses would be less than significant.

Impact. *Emergency Access:* As discussed in Section IV.K, Transportation, Section VI, Other CEQA Considerations, and Appendix A, Initial Study, of this Draft EIR, while it is expected that most construction activities for the Project would be confined to the Site Locations, limited off-site construction activities may occur in adjacent street rights-of-way during certain periods of the day, which could potentially require temporary lane closures. However, if lane closures are necessary, the remaining travel lanes would be maintained in accordance with standard construction management plans that would be implemented to ensure adequate circulation and emergency access. Additionally, Project operations would not alter existing traffic patterns. Furthermore, one of the primary benefits of the TCN Program is to provide communication to travelers during emergency events. Therefore, the Project would not result in inadequate emergency access to the Site Locations or surrounding uses. As such, impacts regarding emergency access would be less than significant.

References. Section IV.K, Transportation, of the Draft EIR, pages IV.K-10 through IV.K-23. Section VI, Other CEQA Considerations, of the Draft EIR, pages VI-25 through VI-26. Appendix A, Initial Study, to the Draft EIR, pages 47–49.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and as set forth in the Draft EIR, Metro finds that these transportation impacts related to emergency access would be less than significant.

7.17 UTILITIES AND SERVICE SYSTEMS

As discussed in Section IV.M, Utilities and Service Systems, and Chapter VI, Other CEQA Considerations, of the Draft EIR, the Project would result in less-than- significant impacts related to utilities and service systems with respect to the following significance thresholds:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impact. *Electrical Facilities:* As discussed more fully in Section IV.M, Utilities and Service Systems, and Section IV.E, Energy, of the Draft EIR, Project construction would require minimal electricity and would not adversely affect existing electrical infrastructure serving the surrounding uses. Similarly, LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's operational electricity demand. Based on these facts and those in the Draft EIR, Project construction and operations would not result in an increase in demand for electricity that exceeds the existing available supply or distribution infrastructure capabilities, such that construction of new energy facilities or expansion of existing facilities would be required. Therefore, this impact related to utilities and service systems would be less than significant.

References. Section IV.M, Utilities and Service Systems, of the Draft EIR, pages IV.M-5 through IV.M-7. Section IV.E, Energy, of the Draft EIR, pages IV.E-18 through IV.E-36.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these utilities and service systems impacts related to electrical facilities would be less than significant.

Impact. *Water, Wastewater Treatment, Stormwater Drainage, Natural Gas, and Telecommunications Facilities:* The Project would involve limited use of water during construction and operation (associated with maintenance) and would not generate wastewater. Additionally, the Project would not be of a size or type that would generate the demand for substantial stormwater drainage infrastructure improvements. Furthermore, construction and operation of the Project would not utilize natural gas and thus would not generate a demand for new natural gas infrastructure. Finally, construction and operation of the Project would not result in the demand for substantial telecommunications infrastructure improvements. Therefore, the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, natural gas or telecommunication facilities. Thus, these impacts would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, pages VI-26 through VI-27. Appendix A.1, Initial Study, to the Draft EIR, pages 50–53.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these utilities and service systems impacts related to water, wastewater, stormwater, natural gas, and telecommunications facilities would be less than significant.

Impact. *Water Supply:* The Project would have a minimal demand for water during construction and during operation (related to maintenance). Therefore, the Project would not result in impacts associated with water supply.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, pages VI-26 through VI-27. Appendix A.1, Initial Study, to the Draft EIR, pages 50–53.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these utilities and service systems impacts related to water supply would be less than significant.

Impact. *Solid Waste Generation:* The project would generate a minimal amount of construction waste which would be accommodated within the Azusa Land Reclamation Landfill's remaining disposal capacity of 58.84 million tons. Soil export is not included in the calculation of construction waste since soil is not disposed of as waste but, rather, is typically used as a cover material or fill at other construction sites requiring soils import. Based on the above, Project construction would not generate solid waste in excess of state or local standards, or in excess

of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Furthermore, the Project would not generate on-site employees or residents. As such, Project operation would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, pages VI-26 through VI-27. Appendix A.1, Initial Study, to the Draft EIR, pages 50–53.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these utilities and service systems impacts related to solid waste generation would be less than significant.

Impact. *Solid Waste Laws and Regulations:* The Project would comply with applicable waste diversion requirements during construction. As operation of the Project would not generate solid waste, there are no regulations that would be implemented. Therefore, impacts related to solid waste would be less than significant.

References. Chapter VI, Other CEQA Considerations, of the Draft EIR, pages VI-26 through VI-27. Appendix A.1, Initial Study, to the Draft EIR, pages 50–53.

Mitigation Measures. These impacts would be less than significant and do not require mitigation measures.

Finding. For the reasons stated above and in the Draft EIR, Metro finds that these utilities and service systems impacts related to solid waste laws and regulations would be less than significant.

8. ENVIRONMENTAL RESOURCES FOUND TO NOT BE IMPACTED

One or more aspects of the following environmental resources would not be impacted by the Project:

- Agriculture and Forestry Resources (farmland conversion; conflicts with agricultural zoning or Williamson Act contracts; conflicts with forest land zoning; loss or conversion of forest land; other environmental changes leading to farmland or forest land conversion)
- Biological Resources (conflicts with habitat conservation plans)
- Geology and Soils (landslide risk; soils incapable of supporting septic tanks)
- Hazards and Hazardous Materials (wildland fires)
- Population and Housing (displacement of people or housing)
- Transportation (CEQA Guidelines Section 15064.3, subdivision (b))

- Utilities and Service Systems (water, wastewater, stormwater, natural gas, and telecommunications infrastructure; wastewater treatment capacity)
- Wildfire (emergency response or evacuation plan; exposure of project occupants to wildfire pollutants; risk exposure)

Impact. No impacts would occur.

References. Section IV.C, Biological Resources, page IV.C-40; Section IV.F, Geology and Soils, pages IV.F-51, IV.F-54; Section IV.H, Hazards and Hazardous Materials, pages IV.H-48 through IV.H-49; Section IV.I, Land Use and Planning, page IV.I-14; Section IV.K, Transportation, page IV.K-17; Chapter VI, Other CEQA Considerations, pages VI-16 through VI-28; and Appendix A.1, Initial Study, of the Draft EIR, pages 16–55.

Mitigation Measures. No impacts would occur and mitigation measures are not required.

Findings. For the reasons discussed in the initial study and the Draft EIR, Metro finds that the Project would not result in impacts to one or more aspects of the resources as listed above.

9. CUMULATIVE IMPACTS

As required by CEQA Guidelines Section 15130, the impact analysis in the EIR considers the individual and cumulative environmental effects of the Project. This analysis is a two-step process. The first step is to determine whether or not the combined effects from the Project and related projects would result in a potentially significant cumulative impact. If the answer is no, then the EIR only briefly needs to indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. If the answer is yes, then the analysis proceeds to the second step, which is to determine whether the proposed project's incremental effects are cumulatively considerable, and therefore significant.

CEQA Guidelines Section 15065(a)(3) defines "cumulatively considerable" to mean that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. As explained more fully in Section III.B, Related Projects, of the Draft EIR, the cumulative analysis for the Project considers the 2020–2045 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS), the Metro Vision 2028 Strategic Plan, Metro's 2020 Long Range Transportation Plan (LRTP), Metro's NextGen Bus Study, and the City's Sidewalk and Transit Amenity Program.

As discussed more fully in the Draft EIR and in the Initial Study, Appendix A.1 to the Draft EIR, Metro finds that cumulative impacts related to Aesthetics (light and glare), Agricultural and Forestry Resources, Air Quality, Biological Resources, Cultural Resources (archaeological resources; human remains), Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Noise, Population

and Housing, Public Services, Transportation, Tribal Cultural Resources, Utilities and Service Systems, Recreation, or Wildfire would not be significant. Thus, these impacts are not discussed further below.

9.1 AESTHETICS

Impact. *Scenic Vistas and Visual Character:* As discussed above and in the Draft EIR, it is conservatively concluded that the proposed TCN Structures would result in significant impacts associated with views and visual character at Site Locations NFF-2, NFF-3, NFF-16 and NFF-21. Specifically, five historical resources, including the North Spring Street Bridge (Caltrans Bridge No. 53C0859), Lankershim Depot, the Little Tokyo Historic District, the Japanese Village Plaza, and the Fourth Street Bridge (Caltrans Bridge No. 53C0044) are near these TCN Structures. While the TCN structures would not physically impact the historical resources, the TCN structures would impede visibility of and thus detract from the character defining features of these five historical resources. To the extent that there are related projects that introduce additional visual features that distract from these historical resources, cumulative impacts associated with scenic views would be significant and the Project's contribution is considered to be cumulatively considerable.

Impact. *Consistency with Plan Policies and Regulations Regarding Scenic Quality:* As discussed above and in the Draft EIR, the Project would conflict with plan policies regarding scenic quality. To the extent that there are related projects that also result in inconsistencies with plan policies regarding scenic quality, cumulative impacts associated with scenic views would be significant, and the Project's contribution is considered to be cumulatively considerable.

Finding. For the reasons discussed above and in the Draft EIR, Metro finds that these cumulative aesthetic impacts would be significant and unavoidable.

9.2 CULTURAL RESOURCES

Impact. *Historical Resources:* Cumulative impacts may occur if the Project and related projects, as identified in Section III, Environmental Setting, of the Draft EIR, cumulatively affect historical resources in the immediate vicinity, contribute to changes within the same historic district, or involve resources that are examples of the same property type or significant within the same context as the ones within the Study Area of the Project Site. A significant cumulative impact associated with the Project and related projects would occur if the combined impact of the Project and related projects would materially and adversely alter those physical characteristics that convey the historic significance of a historical resource and that justify its listing, or eligibility for listing, as a historical resource. Each of the related projects would be required to study and, if necessary, mitigate any impacts on the integrity or significance of surrounding historical resources. However, if the related projects would result in significant and unavoidable impacts on a historical resource that is the same property type or significant within the same context as

the ones within the Study Area of a Site Location, the Project's cumulative impact to historical resources would be potentially significant and unavoidable. Therefore, the Project is conservatively concluded to have a cumulatively considerable contribution to cumulative impacts to historical resources.

Finding. For the reasons discussed above and in the Draft EIR, Metro finds that these cumulative impacts to cultural resources would be significant and unavoidable.

9.3 LAND USE AND PLANNING

Impact. *Land Use Consistency:* As indicated in Section III, Environmental Setting, of the Draft EIR, cumulative growth is anticipated in the surrounding area of the Site Locations through 2025, the Project's anticipated buildout year. The related projects are comprised of transportation improvements that are included in the 2020-2045 RTP/SCS, Metro's 2020 Long Range Transportation Plan, the NextGen Bus Plan, and Sidewalk and Transit Amenity Program, which are encouraged by the land use policies evaluated above. Furthermore, the related projects and the Project would improve and expand traffic and transportation systems and maximize efficiency of a congested road network consistent with local and regional goals and objectives. As with the Project, the related projects would undergo consistency review with relevant land use policies and regulations by State and Local regulatory agencies and would be subject to CEQA review. Nonetheless, as discussed above, Site Locations NFF 2, NFF 3, NFF 16, NFF 21, FF 29 and FF 30 would result in significant impacts associated with consistency with land use policies. As such, to the extent that other related projects in the vicinity of these Site Locations also result in significant land use consistency impacts, the Project's contribution to land use impacts would be cumulatively considerable.

Finding. For the reasons discussed above and in the Draft EIR, Metro finds that these cumulative land use and planning impacts would be significant and unavoidable.

10. ALTERNATIVES AND MITIGATION MEASURES

CEQA provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" (PRC, § 21002.) However, "in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof." (*Ibid*.) As defined by CEQA, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors. (PRC, § 21061.1; CEQA Guidelines, § 15126.6(f)(1).)

In determining whether an alternative or mitigation measure is "feasible" under CEQA, an agency may consider whether that alternative or mitigation measure will promote the project's

objectives and goals. (*Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993), 23 Cal.App.4th 704, 715; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 [citing 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2d ed.2009) § 17.30, p. 825].) The feasibility determination also "encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society*, *supra*, at p. 1001.) Broad policy decisions come into play when determining whether alternatives or mitigation measures are feasible, and "an alternative that 'is impractical or undesirable from a policy standpoint' may be rejected as infeasible." (*Ibid* [quoting 2 Kostka & Zischke, *supra*, § 17.29, p. 824] [upholding agency's reliance on policy considerations like "promoting transportation alternatives" and "access to . . . open space for persons with disabilities" in making its infeasibility findings].)

10.1 ALTERNATIVES

Pursuant to CEQA Guidelines Section 15126.6(a), the EIR described and evaluated a range of reasonable alternatives to the Project that would avoid or substantially reduce the significant impacts of the Project.

The EIR examined three alternatives to the Project in detail, which include Alternative 1, the No Project Alternative; Alternative 2, Elimination of Impacts Relating to Historical Resources Alternative; and Alternative 3, Elimination of All Significant and Unavoidable Impacts Alternative.

Pursuant to CEQA Guidelines Section 15126.6(c), the EIR discussed additional alternatives that were considered for analysis but rejected as infeasible and explained the reasons for their rejection. The proposed Site Locations were chosen as they were the most feasible locations for construction and would not affect natural features such as trees and landscaping. The locations were also chosen based on their geographic spacing, and visibility and accessibility for commuters. Given the number of additional Metro properties located adjacent to freeways and major roadways, several alternative locations may be available that would also reduce these significant impacts to a less than significant level. Assuming that these alternative site locations would not be placed in proximity to historical resources and that the same mitigation measures for the Project would be implemented, these locations would result in impacts that would be similar to those of Alternative 2. In addition, Alternative 3 would eliminate Site Locations NFF-2, NFF-3, NFF-16, NFF-21, as well as eliminate or relocate Site Locations FF-29 and FF-30 outside of the coastal area of the Palms–Mar Vista–Del Rey Community Plan. Assuming that alternative site locations are available that would not be placed in proximity to historical resources and would not be located within the coastal area of the Palms–Mar Vista–Del Rey Community Plan, these locations would result in impacts that would be similar to those of Alternative 3. Therefore, an alternative location alternatives analysis is not further evaluated.

10.2 NO PROJECT ALTERNATIVE

The No Project Alternative, or Alternative 1, is required by CEQA Guidelines Section 15126.6 (e)(2) and assumes that the Project would not be implemented by Metro. The No Project Alternative allows decision-makers to compare the impacts of approving the Project with the impacts of not approving the Project. Under Alternative 1, no new permanent development would occur within the Site Locations, and the existing environment would be maintained. No existing static signs would be removed. Further, the proposed Zoning Ordinance for the TCN Program under the Project would not occur. Thus, the physical conditions of the Site Locations would generally remain as they are today. No new construction would occur. Further, no revenue would be generated from the Project to fund new and expanded transportation programs.

Although the No Project Alternative would avoid the Project's significant impacts, Metro finds that specific economic, legal, social, technological, and other considerations render the No Project Alternative identified in the EIR infeasible. (CEQA Guidelines Section 15091(a)(3)). Alternative 1 would not fulfill any of the Project Objectives. By pursuing the No Project Alternative, Metro would not increase its capacity for real-time data collection to improve traffic and transit management; expand its transportation public messaging network; improve public safety and emergency communications; maximize efficiency of congested road networks; generate revenue for both Metro and the City to fund transportation programs; implement Goal 4 of the Metro Vision 2028 Strategic Plan; reduce the overall square footage of existing static off-premise displays within the City; or locate TCN Structures in such a way as to efficiently relay information to commuters, without increasing distractions to motorists. For these reasons, Metro finds that the No Project Alternative is not feasible.

10.3 ALTERNATIVE 2

Alternative 2, the Elimination of Impacts Relating to Historical Resources Alternative, would eliminate TCN Structures at Site Locations NFF-2, NFF-3, NFF-16, and NFF-21 proposed by the Project. The remaining 52 TCN Structures would be proposed under this alternative. As with the Project, Alternative 2 would provide for an overall reduction in static displays (at least 2-to-1 square footage take-down ratio), throughout the City. Impacts to historical resources and the related aesthetic and land use impacts associated with Site Locations NFF-2, NFF-3, NFF-16, and NFF-21 would be eliminated. As with the proposed Project, under Alternative 2, the City would establish a Zoning Ordinance that would provide a mechanism to review and approve the TCN Structures Citywide.

The purpose of the Project is to provide a network of TCN Structures that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro's communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City of Los Angeles.

Alternative 2 would not meet the basic objective of the Project to maximize advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that would further Goal 2 of the Metro Vision 2028 Strategic Plan, by creating a funding source for programs to enhance experiences for all Metro users such as improving security and increasing customer satisfaction. By reducing the number of TCN Structures that could display advertisements, Alternative 2 would generate less advertising revenue. As a result, Alternative 2 would be less effective at fulfilling Goal 2 of Metro's Vision 2028 Strategic Plan because less funding would be available for programs that would enhance experiences for all Metro users.

Moreover, because the fundamental nature of the Project is to create a network of locations that can both collect transportation data and disseminate transportation-related information to the public, reducing the number of TCN locations will reduce the overall effectiveness of the Project. Alternative 2 would therefore be substantially less effective at fulfilling the objectives of the Project. Fewer TCN Site Locations would result in reduced real-time data collection to aid in signal timing, micro-transit data and Metro vanpool on demand services At the same time, Alternative 2 would result in fewer people having access to public safety notifications provided by the TCN Program. As a result, this Alternative would not serve some areas within the City as well as others.

Similarly, reducing TCN Site Locations would result in fewer opportunities to expand Metro's transportation public messaging network, reducing Metro's visibility and accessibility for all commuters compared to the Project. Alternative 2 would result in a network with less geographical coverage than the Project, which would ultimately impair the network's effectiveness at promoting travel alternatives to improve roadway safety and congestion.

In addition to the Project-specific objectives discussed above, Alternative 2 would be less effective at fulfilling Metro's policy objectives. The Metro's Vision 2028 Strategic Plan is the foundational strategic plan that establishes the mission, vision, and goals that will guide Metro's decision-making. It recognizes that population and economic growth in LA County are increasing travel demand, and that the current system is inadequately meeting the needs of its users due to inefficient use of the roadways. Thus, the Plan identifies multiple goals and initiatives that aim to achieve Metro's vision for future transportation in LA County.

The advertising revenue provided by the Project will fund: transportation projects and services in the City, including City transit lines or other public transit service; the acquisition of transit-related equipment, included buses, trucks, transit shelters and street furniture; sidewalks, curb

improvements, and beautification projects needed to improve conditions for public transit patrons; pedestrian safety improvements in the public right-of-way including speed humps, street resurfacing, traffic lane or pedestrian marking and signage, and acquisition of property to widen the public right-of-way to create safer traffic flow, bicycle lanes, and safer pedestrian routes. With less funding, generated by the Alternative, the Project would be less effective of fulfilling the goals of Metro's Vision 2028 Strategic Plan.

Reducing the number of TCN locations will also reduce the ability of Metro to satisfy policy objectives that could be served by increased data collection, network coverage, and transmission of information to the traveling public. Therefore, Alternative 2 would be less effective at meeting the following goals of Metro's Vision 2028 Strategic Plan:

1. Provide high-quality mobility options that enable people to spend less time traveling,

2. Deliver outstanding trip experiences for all users of the transportation system,

3. Enhance communities and lives through mobility and access to opportunity, and

4. Transform LA County through regional collaboration and national leadership.

While the Project would support the goals and initiatives identified in the Vision Plan, the reduction of TCN Structures in Alternative 2 would be less effective. For example, the Vision Plan anticipates that Metro will improve its transit assets, deliver positive trip experiences for transportation system users, and increase mobility and access. As discussed above, Alternative 2 will not maximize revenue for Metro and City to fund transportation improvements such as additional public transit services, new vehicles, new transit infrastructure, and aesthetic and safety improvements on public roadways. Additionally, the reduced effectiveness of Alternative 2 at collecting and distributing information, discussed above, would be less consistent with the Vision Plan's goals relating to improving the experiences of commuters and increasing visibility of and access to Metro's services.

In the Vision Plan, Metro also acknowledges that its "individual infrastructure projects will need to be coordinated and vetted in the context of Southern California Association of Governments (SCAG) Regional Transportation Plan . . . ." SCAG policies are directed towards developing regional land use patterns that reduce vehicle miles and improve the transportation system. The 2020-2045 RTP/SCS centers on maintaining and better managing the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets.

For example, the RTP/SCS includes goals to improve travel experiences and the transportation system, increase travel efficiency, and reduce the climate and air quality impacts of transportation. As discussed above, the reduced revenue that would be generated by Alternative 2 would hinder the pursuit of transportation system improvements that are consistent with the

RTP/SCS. At the same time, the reduced ability of Alternative 2 to collect and share data would limit the opportunity for data-driven solutions to improve roadway efficiency and ultimately reduce VMT.

For these reasons, Metro finds that Alternative 2 is not feasible.

10.4 ALTERNATIVE 3

Alternative 3, the Elimination of All Significant and Unavoidable Impacts Alternative, would eliminate Site Locations NFF 2, NFF 3, NFF 16, and NFF 21, as well as eliminate or relocate FF-29 and FF-30 outside of the coastal area of the Palms – Mar Vista – Del Rey Community Plan. As with the Project, Alternative 3 would provide for an overall reduction in static displays throughout the City. The remaining 50 TCN Structures would be proposed under this alternative. As with the Project, Alternative 3 would provide for an overall reduction in static displays (2 to 1 square footage take-down ratio), throughout the City. Impacts to aesthetics, historic resources, and land use would be eliminated. As with the Project, under Alternative 3 the City would establish a Zoning Ordinance that would provide a mechanism to review and approve the TCN Structures Citywide.

Alternative 3 would include a reduced number of TCN Structures. Due to the reduction in TCN Structures, Alternative 3 would be less effective at meeting the Project's objectives and Metro's broader policy goals for the same reasons discussed above with respect to Alternative 2.

Alternative 3 would not meet the basic objective of the Project to maximize advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that would further Goal 2 of the Metro Vision 2028 Strategic Plan, by creating a funding source for programs to enhance experiences for all Metro users such as improving security and increasing customer satisfaction. By reducing the number of TCN Structures that could display advertisements, Alternative 3 would generate less advertising revenue. As a result, Alternative 3 would be less effective at fulfilling Goal 2 of Metro's Vision 2028 Strategic Plan because less funding would be available for programs that would enhance experiences for all Metro users.

Moreover, because the fundamental nature of the Project is to create a network of locations that can both collect transportation data and disseminate transportation-related information to the public, reducing the number of TCN locations will reduce the overall effectiveness of the Project. Alternative 2 would therefore be substantially less effective at fulfilling the objectives of the Project. Fewer TCN Site Locations would result in reduced real-time data collection to aid in signal timing, micro-transit data and Metro vanpool on demand services At the same time, Alternative 3 would result in fewer people having access to public safety notifications provided by the TCN Program. As a result, this Alternative would not serve some areas within the City as well as others.

Similarly, reducing TCN Site Locations would result in fewer opportunities to expand Metro's transportation public messaging network, reducing Metro's visibility and accessibility for all commuters compared to the Project. Alternative 3 would result in a network with less geographical coverage than the Project, which would ultimately impair the network's effectiveness at promoting travel alternatives to improve roadway safety and congestion.

In addition to the Project-specific objectives discussed above, Alternative 3 would be less effective at fulfilling Metro's policy objectives. The Metro's Vision 2028 Strategic Plan is the foundational strategic plan that establishes the mission, vision, and goals that will guide Metro's decision-making. It recognizes that population and economic growth in LA County are increasing travel demand, and that the current system is inadequately meeting the needs of its users due to inefficient use of the roadways. Thus, the Plan identifies multiple goals and initiatives that aim to achieve Metro's vision for future transportation in LA County.

The advertising revenue provided by the Project will fund: transportation projects and services in the City, including City transit lines or other public transit service; the acquisition of transit-related equipment, included buses, trucks, transit shelters and street furniture; sidewalks, curb improvements, and beautification projects needed to improve conditions for public transit patrons; pedestrian safety improvements in the public right-of-way including speed humps, street resurfacing, traffic lane or pedestrian marking and signage, and acquisition of property to widen the public right-of-way to create safer traffic flow, bicycle lanes, and safer pedestrian routes. With less funding, generated by the Alternative, the Project would be less effective of fulfilling the goals of Metro's Vision 2028 Strategic Plan.

Reducing the number of TCN locations will also reduce the ability of Metro to satisfy policy objectives that could be served by increased data collection, network coverage, and transmission of information to the traveling public. Therefore, Alternative 3 would be less effective at meeting the following goals of Metro's Vision 2028 Strategic Plan:

5. Provide high-quality mobility options that enable people to spend less time traveling,

6. Deliver outstanding trip experiences for all users of the transportation system,

7. Enhance communities and lives through mobility and access to opportunity, and

8. Transform LA County through regional collaboration and national leadership.

While the Project would support the goals and initiatives identified in the Vision Plan, the reduction of TCN Structures in Alternative 3 would be less effective. For example, the Vision Plan anticipates that Metro will improve its transit assets, deliver positive trip experiences for transportation system users, and increase mobility and access. As discussed above, Alternative 3 will not maximize revenue for Metro and City to fund transportation improvements such as additional public transit services, new vehicles, new transit infrastructure, and aesthetic and

safety improvements on public roadways. Additionally, the reduced effectiveness of Alternative 3 at collecting and distributing information, discussed above, would be less consistent with the Vision Plan's goals relating to improving the experiences of commuters and increasing visibility of and access to Metro's services.

In the Vision Plan, Metro also acknowledges that its "individual infrastructure projects will need to be coordinated and vetted in the context of Southern California Association of Governments (SCAG) Regional Transportation Plan . . . ." SCAG policies are directed towards developing regional land use patterns that reduce vehicle miles and improve the transportation system. The 2020-2045 RTP/SCS centers on maintaining and better managing the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets.

For example, the RTP/SCS includes goals to improve travel experiences and the transportation system, increase travel efficiency, and reduce the climate and air quality impacts of transportation. As discussed above, the reduced revenue that would be generated by Alternative 3 would hinder the pursuit of transportation system improvements that are consistent with the RTP/SCS. At the same time, the reduced ability of Alternative 3 to collect and share data would limit the opportunity for data-driven solutions to improve roadway efficiency and ultimately reduce VMT.

For these reasons, Metro finds that Alternative 3 is not feasible.

10.5 FINDINGS FOR MITIGATION MEASURES

The Metro Board has considered every mitigation measure recommended in the Draft EIR and included in the Mitigation Monitoring and Reporting Program (MMRP). Metro hereby binds itself to implement or, as appropriate, require implementation of these measures. The MMRP will be adopted concurrently with these Findings and will be effectuated through the process of constructing and implementing the Project. As described above in Section 5 of these Findings, Metro has rejected as infeasible other potential mitigation measures considered in the EIR.

Some comments on the Draft EIR suggested additional mitigation measures and/or modifications to the measures recommended in the Draft EIR. As shown in the Final EIR, Metro incorporated suggestions where appropriate or Metro explained why the suggested mitigation measures were not feasible and/or not superior to the mitigation measures identified in the Draft EIR. The Metro Board acknowledges staff for its careful consideration of these comments and agrees with the Final EIR in those instances when staff did not accept proposed language, and hereby ratifies, adopts, and incorporates the Final EIR's reasoning on these issues. As discussed in Section 6 of these Findings, with implementation of the mitigation measures set forth in the MMRP, the Project would not result in any significant and unavoidable impacts.

11. STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to CEQA Guidelines Section 15093, if a project's EIR and administrative record substantiate that the project would result in significant and unavoidable impacts, then the lead agency is required to balance the project's significant and unavoidable impacts against its economic, legal, social, technological, or other benefits. If these benefits outweigh the significant and unavoidable impacts, then the significant and unavoidable impacts may be deemed acceptable. In such a case, the lead agency must state, in writing, the specific reasons that support this conclusion. This section presents the Project's potential significant and unavoidable impacts followed by Metro's findings as to why the Project's benefits outweigh these significant and unavoidable impacts.

11.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The Project would result in the following significant and unavoidable impacts:

Aesthetics (scenic vistas). The Project would include TCN Structures at four Site Locations that would be near five historical resources. The TCN Structures would not physically impact these historical resources, but the TCN Structures would impede the visibility of the historical resources. Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. Thus, the Project would result in substantial adverse effects on scenic vistas, and the impacts would be significant and unavoidable.

Aesthetics (visual character). The proximity of four TCN Structures to five historical resources, mentioned above, would detract from the character defining features of those historical resources. Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. Thus, the Project would result in significant and unavoidable impacts associated with visual character.

Aesthetics (conflicts with plans). As mentioned above, the four TCN Structures that would impact historical resources would thus be inconsistent with several goals and policies of the Central City North, Central City, and North Hollywood–Valley Villa Community Plans regarding historical resources and associated visual impacts. In addition, the Project would also be inconsistent with Palms–Mar Vista–Dey Community Plan policies regarding placement of two other TCN Structures within the coastal area. Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. Thus, the Project would result in significant and unavoidable impacts due to its conflicts with plans related to historical resources and associated visual impacts.

Cultural Resources (historical resources). As mentioned above, four TCN Structures near five historical resources would result in a permanent and unavoidable effect on the integrity of the setting and feeling of those resources. Although these historical resources are within an urban setting subjected to the visual, atmospheric, and audible effects of the environment on a regular basis, the TCN Structures at these Site Locations would likely detract from the character-defining features and affect the viewsheds of the resources. Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. As such, impacts to historical resources from the Project would be significant and unavoidable.

Land Use and Planning. As mentioned above, four TCN Structures near five historical resources and two TCN Structures in the coastal area would conflict with goals and policies in local plans adopted for the purpose of avoiding or mitigating environmental effects. Specifically, four TCN Structures would conflict with a few goals and policies in the Central City North, Central City, North Hollywood–Valley Village Community Plans, as well as the General Plan's Conservation Element policies related to historical resources. In addition, two TCN Structures would conflict with the Palms–Mar Vista–Del Rey Community Plan policy regarding placement of off-site advertising within coastal areas. Review of potential measures such as modification to the size and height of the signs was considered. However, such modifications would not materially reduce these impacts. As such, impacts related to conflicts with applicable plans, policies, and regulations would be significant and unavoidable.

11.2 DETERMINATION

Metro concludes that the overall benefits of the Project outweigh the significant and unavoidable impacts discussed above, and that the significant and unavoidable impacts are thus considered acceptable.

As provided in Section II, Project Description, of the Draft EIR, the underlying purpose of the Project is to provide a network of TCN Structures that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro's communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City of Los Angeles. The Project would result in the following benefits:

- Incorporate features for real-time data collection to aid in traffic signal timing, micro-transit data, and Metro vanpool on-demand services;
- Geographically space the multifunctional TCN Structures to expand Metro's transportation public messaging network and ability to broadcast information to commuters in a variety of ways to further increase Metro's visibility and accessibility for all commuters;

- Improve public safety by notifying the public of roadway improvements, road hazards, Earthquake Early Warning System notifications, Amber Alerts, and emergency situations;
- Maximize efficiency of the congested road network by promoting public awareness of travel alternatives based on geography and time constraints such as alternative routes, carpooling alternatives, and public transportation opportunities;
- Maximize advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that would further Goal 2 of the Metro Vision 2028 Strategic Plan, by creating a funding source for programs to enhance experiences for all Metro users such as improving security and increasing customer satisfaction;
- Implement Goal 4 of the Metro Vision 2028 Strategic Plan by creating an avenue for regional collaboration and comprehensive, timely, and real-time information sharing across government agencies to regionally improve traffic and transportation systems;
- Reduce overall square footage of existing static off-premise displays within the City of Los Angeles; and
- Locate the TCN Structures at sites, elevations, and angles that would not increase distraction to motorists while still efficiently relaying information to commuters.

By providing these benefits, the Project will help to fulfill transportation related goals and policies set forth in the Community Plans, the General Plan Framework Element, SCAG's 2020–2045 RTP/SCS, the Mobility Plan, and Metro's Vision Plan.

The TCN Program would enable Metro to quickly collect a large quantity of real time travel and traffic data, while also allowing Metro to more easily process the data and transmit information to other transportation agencies and to commuters. The TCN Structures would also incorporate real time data to aid in traffic signal timing and Metro vanpool on-demand services. Additionally, the TCN Program would enable the collection of event congestion data for LAX, Dodger Stadium, the Hollywood Bowl, and other large venues, including travel demand management services for the 2028 Olympic and Paralympic Games, and would also provide information regarding available parking spaces in park-and-ride lots.

The TCN Program would create advertising revenue for both Metro and the City, expanding the agencies' funding for transportation programs. The Project is expected to generate $300-$500 million over the initial 20-year term, which would fund new and expanded transportation programs that would improve the performance, efficiency, and reliability of existing and future bus and transit services while also decreasing VMT, reducing traffic congestion, and improving air quality.

In addition to adding TCN Structures, the Project would include the removal of static billboards. Communities, particularly underserved communities and communities of color, have long struggled with the blight of static billboards. The Project would reduce blight and readjust this imbalance by removing a proportionately higher number of static displays from properties within Equity Focus Communities (EFCs) and adding a proportionately lower number of TCN Structures in EFCs.

IV. Mitigation Monitoring and Reporting Program

1. Introduction

Section 21081.6 of the Public Resources Code requires a lead agency to adopt a "reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." Section 15097 of the CEQA Guidelines provides additional direction on mitigation monitoring or reporting. As the lead agency for the Project, Metro is responsible for administering and implementing the Mitigation Monitoring and Reporting Program (MMRP). The decisionmakers must define specific monitoring requirements to be enforced during project implementation. The primary purpose of the MMRP is to ensure that the project design features (PDFs) and mitigation measures (MMs) identified in the Draft and Final EIR are implemented, effectively minimizing the identified environmental effects.

2. Organization

As shown in Section 4 Mitigation Monitoring and Reporting Program below, each identified PDF and MM for the Project is listed and categorized by environmental impact area, with accompanying identification of the following:

- Monitoring Action: The criteria that would determine when the measure has been accomplished and/or the monitoring actions to be undertaken to ensure the measure is implemented.
- Responsible Party: The entity accountable for the action.
- Enforcement Agency: The agency or agencies responsible for overseeing the implementation of mitigation.
- Monitoring Phase: The timing of when implementation of the action is verified.

3. Program Modification

After review and approval of the final MMRP by the Lead Agency, minor changes and modifications to the MMRP are permitted, but can only be made subject to Metro

approval. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. This flexibility is necessary in light of the nature of the MMRP and the need to protect the environment. No changes will be permitted unless the MMRP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

The Project shall be in substantial conformance with the PDFs and MMs contained in this MMRP. The enforcing departments or agencies may determine substantial conformance with PDFs and MMs in the MMRP in their reasonable discretion. If the department or agency cannot find substantial conformance, a PDF or MM may be modified or deleted as follows: the enforcing department or agency, or the decision maker for a subsequent discretionary project related approval, finds that the modification or deletion complies with CEQA, including CEQA Guidelines Sections 15162 and 15164, which could include the preparation of an addendum or subsequent environmental clearance, if necessary, to analyze the impacts from the modifications to or deletion of the PDFs or MMs. Any addendum or subsequent CEQA clearance shall explain why the PDF or MM is no longer needed, not feasible, or the other basis for modifying or deleting the PDF or MM, and that the modification will not result in a new significant impact or a substantial increase in the severity of a previously identified significant impact consistent with the requirements of CEQA. Under this process, the modification or deletion of a PDF or MM shall not in and of itself require a modification to any Project discretionary approval unless the Director of Planning for Metro as the Lead Agency also finds that the change to the PDF or MM results in a substantial change to the Project or the non-environmental conditions of approval.

4. Mitigation Monitoring and Reporting Program

Table IV-1
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
Aesthetics				
Project Design Feature AES-PDF-1: ~~State of the art louvers or other equivalent design features shall be incorporated into the design of TCN Structures FF-29 and FF-30 such that the light trespass illuminance at the adjacent residential zoned property and Ballona Wildlife Reserve to the south of the Marina Freeway, west of Culver Boulevard, does not exceed 0.02 footcandles.~~State of the art louvers or other equivalent design features shall be incorporated into the design of TCN Structures FF-13, FF-14, FF-25, FF-29, and FF-30 such that the light trespass illuminance at sensitive habitat at the proposed Bowtie State Park, at the mapped biological resources in the vicinity of TCN Structure FF-25, and at the Ballona Wildlife Reserve to the south of the Marina Freeway, west of Culver Boulevard, do not exceed 0.02 footcandles.	~~Incorporate louvers or other equivalent design features into the design for FF-29 and FF-30.~~Incorporate louvers or other equivalent design features into the design	Construction Contractor	Metro	Preconstruction; Construction
Air Quality				
Project Design Feature AIR-PDF-1: Where power poles are available, electricity from power poles and/or solar powered generators rather than temporary diesel or gasoline generators will be used during construction.	Use power poles and/or solar powered generators where feasible	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction; Construction
Biological Resources				
Mitigation Measure BIO-MM-1: Implement Biological Resource Protection Measures during Construction (All Site Locations and takedown locations of existing static displays). The following BMPs shall be implemented during construction to minimize direct and indirect impacts on biological resources and special-status species: • Prior to the commencement of construction, a Project biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or a related environmental science; greater than five years of experience and knowledge of natural history, habitat affinities, and id of flora and fauna species; and knowledge of all relevant federal, state, and local laws governing biological resources, including CDFW qualifications for field surveyors) shall be designated to be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project biologist will be familiar with the local habitats, plants, and wildlife and maintain communications with the contractor on issues relating to biological resources and compliance with applicable environmental requirements. The Project biologist may designate other qualified biologists or biological monitors to help oversee Project compliance or conduct preconstruction surveys for special-status species. These biologists will have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities. • The Project biologist or designated qualified biologist shall review final plans; designate areas that need temporary fencing (e.g., ESA fencing); and monitor construction activities within and adjacent to areas with native vegetation communities, regulated aquatic features, or special-status plant and wildlife	Retain a qualified biologist.	Construction Contractor	Metro	Preconstruction; Construction
	Conduct a Worker Environmental Awareness Program for all Project personnel and contractors who will be on the Site Locations.	Construction Contractor/Qualified Biologist	Metro	Preconstruction; Construction
	Conduct a preconstruction survey for special-status species.	Construction Contractor/Qualified Biologist	Metro	Preconstruction; Construction
	Inspect the Site Location footprint immediately prior to, and during construction to identify the presence of invasive weeds.	Construction Contractor/Qualified Biologist	Metro	Preconstruction; Construction
	Designate areas that need temporary fencing (e.g., ESA fencing); and monitor construction activities within and adjacent to areas with native vegetation communities, regulated aquatic features, or special-status plant and wildlife species.	Construction Contractor/Qualified Biologist	Metro	Preconstruction; Construction
	Incorporate contractor responsibilities into applicable construction documents including plans and specifications.	Construction Contractor/Qualified Biologist	Metro	Preconstruction; Construction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
species. The qualified biologist shall monitor compliance with applicable environmental requirements during construction activities within designated areas during critical times, such as initial ground-disturbing activities (fencing to protect native species). The qualified biologist shall check construction barriers or exclusion fencing and provide corrective measures to the contractor to ensure the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a federally or state-listed species is encountered within the Project footprint during construction. Construction activities shall cease until the Project biologist or qualified biologist determines that the animal will not be harmed or that it has left the construction area on its own. The Project biologist shall notify Metro, and Metro shall notify the appropriate regulatory agency within 24 hours of sighting of a federally or State-listed species. • Prior to the start of construction, all Project personnel and contractors who will be on the Site Locations during construction shall complete mandatory training conducted by the Project biologist or a designated qualified biologist. Any new Project personnel or contractors that start after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on special-status vegetation communities and special-status species and the potential penalties for impacts on such vegetation communities and species. At a minimum, the training shall include the following topics: (1) occurrences of special-status species and special-status vegetation communities within the Site Location footprints (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction); (2) the purpose for resource protection; (3) sensitivity of special-status species to human activities; (4) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced areas to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or in the BSA by fencing); (5) environmentally responsible construction practices; (6) the protocol to resolve conflicts that may arise at any time during the construction process; (7) reporting requirements and procedures to follow should a special-status species be encountered during construction; and (8) Avoidance Measures designed to reduce the impacts on special-status species. • The training program will include color photos of special-status species and special-status vegetation communities. Following the education program, the photos will be made available to the contractor. Photos of the habitat in which special-status species are found will be posted on site. The contractor shall provide Metro with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project biologist or designated biologist of any incidents that could affect special-status vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project biologist shall notify Metro of any incident, and Metro shall notify the appropriate regulatory agency. • The Project biologist shall conduct a preconstruction survey for special-status species within the Project footprint prior to vegetation clearing, and/or ground				

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
disturbance. Any wildlife encountered will be encouraged to leave the Site Location footprint or relocated outside of the Site Location footprint if feasible. • The Project biologist shall request that the contractor halt work, if necessary, and confer with Metro prior to contacting the appropriate regulatory agencies to ensure the proper implementation of species and habitat protection measures. The Project biologist shall report any noncompliance issue to Metro, and Metro will notify the appropriate regulatory agencies. • The Project biologist shall inspect the Site Location footprint immediately prior to, and during construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the Project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies. • ESA fencing shall be placed along the perimeter of the Site Location footprint, where necessary, to prevent inadvertent intrusions into habitat identified as ESA. Work areas will be clearly marked in the field and confirmed by the Project biologist or designated biologist prior to any clearing, and the marked boundaries will be maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, will be flagged and fenced with ESA fencing (e.g., orange plastic snow fence, orange silt fencing). Fences and flagging will be installed by the contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of Metro. • No work activities, materials or equipment storage, or access shall be permitted outside the Site Location footprint without permission from Metro. All parking and equipment storage used by the contractor related to the Project shall be confined to the Site Location footprint and established paved areas. Undisturbed areas and special-status vegetation communities outside and adjacent to the Site Location footprint shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the Site Location footprint and established roads and construction access points. • The contractor shall be required to conduct vehicle refueling and maintenance in upland areas where fuel cannot enter waters of the U.S. or WOS waters of the State and areas that do not have suitable habitat to support federally and/or state-listed species. Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces shall be cleaned up and disposed of in accordance with applicable local, State, and federal requirements.				
Mitigation Measure BIO-MM-2: Avoid Impacts on Migratory and Nesting Birds (All Site Locations and takedown locations of existing static displays). If construction activities occur between January 15 and September 15, a preconstruction nesting bird survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within the area proposed for disturbance in order to avoid the nesting activities of breeding birds by establishing a buffer until the fledglings have left the nest. The size of the buffer area varies with species and local circumstances (e.g., presence of busy roads) and is based on the professional judgement of the	Retain a qualified biologist.	Construction Contractor/Qualified Biologist	Metro	Preconstruction
	Limit construction to outside the bird nesting season. Should vegetation be removed during these times, nesting bird surveys and species protection shall occur.	Construction Contractor/Qualified Biologist	Metro	Preconstruction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
monitoring biologist, in coordination with the CDFW. The results of the surveys shall be submitted to Metro (and made available to the wildlife agencies [USFWS/ CDFW], upon request) prior to initiation of any construction activities.				
Mitigation Measure BIO-MM-3: Avoid impacts on Least Bell's Vireo, if present (Applicable to Site Locations FF-29 and FF-30). Suitable habitat for Least Bell's Vireo shall be removed outside of the nesting season (March 15 through September 30), between October 1 and March 14. Should habitat for Least Bell's Vireo require removal between March 15 and September 30, or construction activities are initiated during this time, preconstruction surveys consisting of three separate surveys no more than seven days prior to vegetation removal shall be conducted by a qualified biologist. Should Least Bell's Vireo be detected within 500 feet of the Site Location, construction activities shall be halted unless authorization has been obtained from USFWS.	Retain a qualified biologist.	Construction Contractor	Metro	Preconstruction
	Limit construction to outside the bird nesting season. Should vegetation be removed during these times, nesting bird surveys and species protection shall occur.	Construction Contractor/Qualified Biologist	Metro	Preconstruction
Mitigation Measure BIO-MM-4: Avoid Potential Impacts on Special-Status Bats (All Site Locations and take down locations of static displays). A qualified bat biologist shall conduct a preconstruction survey for potential bat habitat within the take down area of the static display or Site Location footprint prior to vegetation clearing, and/or ground disturbance for take down locations and all Site Locations. If suitable habitat is not found, then no further action is required. If suitable habitat is determined to be present: • A qualified bat biologist shall survey potentially suitable structures and vegetation during bat maternity season (May 1st through October 1st), prior to construction, to assess the potential for the structures' and vegetation's use for bat roosting and bat maternity roosting, as maternity roosts are generally formed in spring. The qualified bat biologist shall also perform preconstruction surveys or temporary exclusion within 2 weeks prior to construction during the maternity season, as bat roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys. • If a roost is detected, a bat management plan shall be prepared if it is determined that Project construction would result in direct impacts on roosting bats. The bat management plan shall be submitted to CDFW for review and approval prior to implementation and include appropriate avoidance and minimization efforts such as: • Temporary Exclusion. If recommended by the qualified bat biologist, to avoid indirect disturbance of bats while roosting in areas that would be adjacent to construction activities, any portion of a structure deemed by a qualified bat biologist to have potential bat roosting habitat and may be affected by the Project shall have temporary eviction and exclusion devices installed under the supervision of a qualified and permitted bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion shall be conducted during the fall (September or October) to avoid trapping flightless young bats inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of two weeks to implement, and must be continued to keep the	Retain a qualified bat biologist.	Construction Contractor	Metro	Preconstruction; Construction
	Survey potentially suitable structures and vegetation during bat maternity season.	Construction Contractor/Qualified Bat Biologist	Metro	Preconstruction; Construction
	If a roost is detected prepare a bat management plan.	Construction Contractor/Qualified Bat Biologist	Metro	Preconstruction; Construction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
structures free of bats until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW) if the structure is occupied by bats. If deemed appropriate, the biologist may recommend installation of temporary bat panels during construction. If a roost is detected but would only be subject to indirect impacts: • Daytime Work Hours. All work conducted under the occupied roost shall take place during the day. If this is not feasible, lighting and noise will be directed away from night roosting and foraging areas.				
Cultural Resources				
Mitigation Measure CUL-MM-1: Prior to the start of ground disturbance activities during Project construction, including demolition, digging, trenching, drilling, or a similar activity (Ground Disturbance Activities), a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology shall be retained to prepare a written Cultural Resource Monitoring and Treatment Plan in accordance with the Secretary of the Interior's Standards for Archaeological Documentation, to reduce potential Project impacts on unanticipated archaeological resources unearthed during construction. The Cultural Resource Monitoring and Treatment Plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Site Locations, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. Prior to the commencement of any Ground Disturbance Activities, the archaeological monitor(s) shall provide Worker Environmental Awareness Program (WEAP) training to construction workers involved in Ground Disturbance Activities that provides information on regulatory requirements for the protection of cultural resources. As part of the WEAP training, construction workers shall be informed about proper procedures to follow should a worker discover a cultural resource during Ground Disturbance Activities. In addition, construction workers shall be shown examples of the types of resources that would require notification of the archaeological monitor. The Applicant shall maintain on the Site Locations, for Metro inspection, documentation establishing that the training was completed for all construction workers involved in Ground Disturbance Activities. The archaeological monitor(s) shall observe all Ground Disturbance Activities on the Site Locations that involve native soils. If Ground Disturbance Activities are occurring simultaneously at multiple Site Locations, the principal archaeologist shall determine if additional monitors are required for other Site Locations where such simultaneous Ground Disturbance Activities are occurring. The on-site archaeological monitoring shall end when the archaeological monitor determines that monitoring is no longer necessary.	Retain a Qualified Principal Archeologist.	Construction Contractor	Metro	Preconstruction; Construction
	Prepare a Cultural Resource Monitoring and Treatment Plan.	Construction Contractor/Qualified Archeologist	Metro	Preconstruction; Construction
	Conduct a Worker Environmental Awareness Program for all Project personnel and contractors who will be on the Site Locations.	Construction Contractor/Qualified Archeologist	Metro	Preconstruction; Construction
	Archaeological monitor(s) shall observe all Ground Disturbance Activities on the Site Locations that involve native soils.	Construction Contractor/Qualified Archeologist	Metro	Preconstruction; Construction
Geology and Soils				
Project Design Feature GEO-PDF-1: All development activities conducted on the Site Locations will incorporate the professional recommendations contained in	Incorporate the professional recommendations contained in the	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
the Geology and Soils Evaluation and associated recommendations set forth in a site location-specific, design-level geologic and geotechnical investigation(s) approved by the Metro Capital Engineering Group and/or the Los Angeles Department of Building and Safety (LADBS), provided such recommendations meet and/or surpass relevant state and City laws, ordinances, Code requirements, and MRDC requirements, California Geological Survey's Special Publication 117A and the City's Building Code, as applicable. Such professional recommendations include site-specific subsurface exploration and laboratory testing, foundation systems that are specific to the geologic materials encountered at each individual site, and prohibition of the use of fill materials to support foundation systems.	Geology and Soils Evaluation and associated recommendations set forth in a site location-specific, design-level geologic and geotechnical investigation(s).			
Mitigation Measure GEO-MM-1: The services of a Project paleontologist who meets the Society of Vertebrate Paleontology standards (including a graduate degree in paleontology or geology and/or a publication record in peer reviewed journals, with demonstrated competence in the paleontology of California or related topical or geographic areas, and at least two full years of experience as assistant to a Project paleontologist), shall be retained prior to ground disturbance activities associated with Project construction in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The Paleontological Resource Mitigation and Treatment Plan shall specify the levels and types of mitigation efforts based on the types and depths of ground disturbance activities and the geologic and paleontological sensitivity of the Site Locations. The Paleontological Resource Mitigation and Treatment Plan shall also include a description of the professional qualifications required of key staff, communication protocols during construction, fossil recovery protocols, sampling protocols for microfossils, laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens.	Retain a Qualified Paleontologist.	Construction Contractor	Metro	Preconstruction
	Prepare a site-specific Paleontological Resource Mitigation and Treatment Plan.	Qualified Paleontologist	Metro	Preconstruction
Hazards and Hazardous Materials				
Mitigation Measure HAZ-MM-1 (All Site Locations): Soil Management Plan (SMP)—The Project Applicant shall implement an SMP, which shall be submitted to the Metro Capital Engineering Group and/or City of Los Angeles Department of Building and Safety for review and approval prior to the commencement of excavation and grading activities. The Site Locations shall be subject to the general protocols described in the SMP regarding prudent precautions and general observations and evaluations of soil conditions to be implemented throughout grading, excavation, or other soil disturbance activities on the Site Locations. The protocols in the SMP shall include, but not be limited to, the following: • Special precautions shall be taken to manage soils that will be disturbed during Project earthwork activities in areas containing Chemicals of Concern (COCs) above screening levels (SLs). • The following requirements and precautionary actions shall be implemented when disturbing soil at the Site Locations: no soil disturbance or excavation activities shall occur without a Project-specific Health and Safety Plan (HASP). Any soil that is disturbed, excavated, or trenched due to on-site construction activities shall be handled in accordance with applicable local, state, and	Review and approve soil management plan.	Metro Environmental Services Department and/or the Los Angeles Department of Building and Safety	Metro and/or City of Los Angeles	Preconstruction; Construction
	Implement soil management plan.	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction; Construction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
federal regulations. Prior to the re-use of the excavated soil or the disposal of any soil from the Site Locations, the requirements and guidelines in the SMP shall be implemented. The General Contractor shall conduct, or have its designated subcontractor conduct, visual screening of soil during activities that include soil disturbance. If the General Contractor or subcontractor(s) encounter any soil that is stained or odorous (Suspect Soil), the General Contractor and subcontractor(s) shall immediately stop work and take measures to not further disturb the soils (e.g., cover suspect soil with plastic sheeting) and inform the Metro's representative and the environmental monitor. The environmental monitor, an experienced professional trained in the practice of the evaluation and screening of soil for potential impacts working under the direction of a licensed Geologist or Engineer, shall be identified by Metro prior to the beginning of work. • Prior to excavation activities, the General Contractor or designated subcontractor shall establish specific areas for stockpiling Suspect Soil, should it be encountered, to control contact by workers and dispersal into the environment, per the provisions provided in the SMP. • The General Contractor shall ensure that on-site construction personnel comply with all applicable federal, state, and local regulations, as well as the State of California Construction Safety Orders (Title 8). Additionally, if Suspect Soil is expected to be encountered, personnel working in that area shall comply with California Occupational Safety and Health Administration regulations specified in CCR Title 8, Section 5192. The General Contractor shall prepare a Project-specific HASP. It is the responsibility of the General Contractor to review available information regarding Site Location conditions, including the SMP, and potential health and safety concerns in the planned area of work. The HASP should specify COC action levels for construction workers and appropriate levels of personal protective equipment (PPE), as well as monitoring criteria for increasing the level of PPE. The General Contractor and each subcontractor shall require its employees who may directly contact Suspect Soil to perform all activities in accordance with the General Contractor and subcontractor's HASP. If Suspect Soil is encountered, to minimize the exposure of other workers to potential contaminants on the Site Location, the General Contractor or designated subcontractor may erect temporary fencing around excavation areas with appropriate signage as necessary to restrict access and to warn unauthorized on-site personnel not to enter the fenced area. • The General Contractor shall implement the following measures as provided in the SMP to protect human health and the environment during construction activities involving contact with soils at the Site Location: decontamination of construction and transportation equipment; dust control measures; storm water pollution controls and best management practices; and proper procedures for the handling, storage, sampling, transport and disposal of waste and debris. • The excavated soil should be screened using a calibrated hand-held PID to test for VOCs and methane as necessary. • In the event volatile organic compound (VOC)-contaminated soil is encountered during excavation on-site, a South Coast Air Quality Management District (SCAQMD) Rule 1166 permit shall be obtained before resuming				

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
excavation. Rule 1166 defines VOC-contaminated soil as a soil which registers a concentration of 50 ppm or greater of VOCs as measured before suppression materials have been applied and at a distance of no more than three inches from the surface of the excavated soil with an organic vapor analyzer calibrated with hexane. Notifications, monitoring, and reporting related to the SCAQMD Rule 1166 permit shall be the responsibility of the General Contractor. Protection of on-site construction workers shall be accomplished by the development and implementation of the HASP. • Known below-grade structures at the Site Locations (i.e., storm water infrastructure) shall be removed from the ground or cleaned, backfilled, and left in place as appropriate during grading and excavation. If unknown below-grade structures are encountered during Site Location excavation, the General Contractor shall promptly notify the Metro's representative the same day the structure is discovered. Based on an evaluation of the unknown below-grade structure by the appropriate professional (e.g., environmental monitor, geotechnical engineer), Metro shall address the below-grade structure in accordance with applicable laws and regulations. • A geophysical investigation shall be conducted at the Site Locations to clear the construction area of buried utilities.				
Mitigation Measure HAZ-MM-2 (Site Locations FF-1, FF-2, FF-3, FF-4, FF-5, FF-6, FF-13, FF-14, FF-29, FF-30, NFF-1, NFF-2, NFF-3, NFF-8, NFF-12, NFF-13, NFF-18, NFF-19, and NFF-21): Soil/vapor sampling and testing of soil samples shall be obtained during the site location-specific, design-level geologic and geotechnical investigation. Results of the testing would be submitted and approved by the Metro Capital Engineering Group and/or the Los Angeles Department of Building and Safety (LADBS).	Conduct soil/vapor sampling and testing.	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction
	Review and approve soil/vapor sampling and testing results.	Metro Environmental Services Department and/or the Los Angeles Department of Building and Safety	Metro and/or City of Los Angeles	Preconstruction
Mitigation Measure HAZ-MM-3 (Site Locations FF-4, NFF-3, NFF-18, and NFF-21): A geophysical investigation shall be conducted to clear the construction area of buried utilities and to identify buried substructures, specifically oil wells and USTS. Results of the geophysical investigation shall be submitted to and approved by the Metro Capital Engineering Group and/or LADBS.	Conduct a geophysical investigation.	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction
	Review and approve geophysical investigation results.	Metro Environmental Services Department and/or the Los Angeles Department of Building and Safety	Metro and/or City of Los Angeles	Preconstruction
Noise				
Project Design Feature NOI-PDF-1: Power construction equipment (including combustion engines), fixed or mobile, will be equipped with state-of-the-art noise shielding and muffling devices (consistent with manufacturers' standards). All equipment will be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.	Equip power construction equipment with state-of-the-art noise shielding and muffling devices.	Construction Contractor	Metro and/or City of Los Angeles	Construction
	Maintain noise shielding and muffling device equipment.	Construction Contractor	Metro and/or City of Los Angeles	Construction
Mitigation Measure NOI-MM-1: A temporary and impermeable sound barrier shall be erected at the locations listed below. At plan check, building plans shall include documentation prepared by a noise consultant verifying compliance with this measure. *During TCN Structure NFF-11 Construction* • Between the Project construction area and the residential uses on 67th Street north of the Site Location (receptor location R5). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground	Building plans shall include documentation prepared by a noise consultant verifying use of sound barriers.	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction; Construction
	A temporary and impermeable sound barrier shall be erected.	Construction Contractor	Metro and/or City of Los Angeles	Preconstruction; Construction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
level of receptor location R5. *During TCN Structure NFF-12 Construction* • Between the Project construction area and the residential uses on Victoria Avenue west of the Site Location (receptor location R6). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R6. *During TCN Structure NFF-14 Construction* • Between the Project construction area and the residential uses on Exposition Boulevard southeast of the Site Location (receptor location R7). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R7. *During TCN Structure NFF-19 Construction* • Between the Project construction area and the residential uses on New Hampshire Avenue west of the Site Location (receptor location R10). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R10. *During TCN Structure NFF-20 Construction* • Between the Project construction area and the residential uses on New Hampshire Avenue northwest of the Site Location (receptor location R12). The temporary sound barrier shall be designed to provide a minimum 7-dBA noise reduction at the ground level of receptor location R12. *During TCN Structure NFF-21 Construction* • Between the Project construction area and the residential uses on Mateo Street west of the Site Location (receptor location R13). The temporary sound barrier shall be designed to provide a minimum 7-dBA noise reduction at the ground level of receptor location R13. *During TCN Structure FF-13 Construction* • Between the Project construction area and the residential uses on Casitas Avenue Street west of the Site Location (receptor location R20). The temporary sound barrier shall be designed to provide a minimum 5-dBA noise reduction at the ground level of receptor location R20. *During TCN Structure FF-26 Construction* • Between the Project construction area and the residential uses on Sepulveda Boulevard northeast of the Site Location (receptor location R25). The temporary sound barrier shall be designed to provide a minimum 6-dBA noise reduction at the ground level of receptor location R25. *During TCN Structure FF-28 Construction* • Between the Project construction area and the residential uses on Exposition Boulevard south of the Site Location (receptor location R27). The temporary sound barrier shall be designed to provide a minimum 6-dBA noise reduction at the ground level of receptor location R27. *During TCN Structure FF-33 Construction* • Between the Project construction area and the residential uses on Slauson Avenue north of the Site Location (receptor location R28. The temporary				

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
sound barrier shall be designed to provide a minimum 11-dBA noise reduction at the ground level of receptor location R28.				
Mitigation Measure NOI-MM-2: Construction for TCN Structure NFF-20 shall be completed prior to occupation of the adjacent future residential building (receptor R12B). Alternatively, construction equipment for the installation of the TCN Structure NFF-20 shall be limited to a maximum 75 dBA (L_{eq}) at 50 feet from the equipment.	Complete construction prior to occupation of the adjacent future residential building, or	Construction Contractor	Metro and/or City of Los Angeles	Construction
	Construction equipment shall be limited to a maximum 75 dBA (L_{eq}) at 50 feet from the equipment.	Construction Contractor	Metro and/or City of Los Angeles	Construction
Mitigation Measure NOI-MM-3: A temporary noise barrier shall be provided during the removal of existing static signage where noise sensitive uses are located within 200 feet of and have direct line-of-sight to the existing static signage to be removed. The temporary noise barrier shall be a minimum six feet tall and break the line-of-site between the construction equipment and the affected noise sensitive receptors.	Install a temporary noise barrier during the removal of existing static signage where noise sensitive uses are located within 200 feet of and have direct line-of-sight to the existing static signage to be removed.	Construction Contractor	Metro and/or City of Los Angeles	Construction
Mitigation Measure NOI-MM-4: The use of large construction equipment (i.e., large bulldozer, caisson drill rig, and/or loaded trucks) shall be limited to a minimum of 80 feet away from the existing residences near proposed TCN Structure FF-33 (receptor 28) and the future residences near proposed TCN Structure NFF-20 (receptor 12B), if these residences are constructed and occupied at the time Project construction activities occurs.	Limit use of large construction equipment (i.e., large bulldozer, caisson drill rig, and/or loaded trucks) to a minimum of 80 feet away from the existing residences	Construction Contractor	Metro and/or City of Los Angeles	Construction
Tribal Cultural Resources				
Mitigation Measure MM-TCR-1 (Retain a Tribal Consultant and Qualified Archaeologist): Prior to any ground-disturbing activities on the Site Locations associated with the Project Area, a tribal consultant and qualified archaeologist shall be retained to monitor ground-disturbing activities and ensure proper implementation of the Tribal Cultural Resources Monitoring and Mitigation Program (described in Mitigation Measure TCR-2, below). Ground disturbing activities are defined as excavating, digging, trenching, drilling, tunneling, grading, leveling, removing asphalt, clearing, driving posts, augering, backfilling, blasting, stripping topsoil or a similar activity at a Site Location. A tribal consultant is defined as one who is on the Native American Heritage Commission (NAHC) Tribal Contact list. The tribal consultant will provide the services of a representative, known as a tribal monitor. A qualified archaeologist is defined as one who meets the Secretary of the Interior's (SOI) Professional Qualifications Standards (PQS) for archaeology. The qualified archaeologist shall submit a letter of retention to Metro no fewer than 30 days before ground-disturbing activities commence. The letter shall include a resume for the qualified archaeologist that demonstrates fulfillment of the SOI PQS.	Retain a tribal consultant and qualified archaeologist.	Metro	Metro	Preconstruction; Construction
	A tribal consultant and qualified archaeologist shall monitor ground-disturbing activities and ensure proper implementation of the Tribal Cultural Resources Monitoring and Mitigation Program.	Construction Contractor/Qualified Archaeologist	Metro	Preconstruction; Construction
Mitigation Measure MM-TCR-2 (Develop a Tribal Cultural Resource Mitigation and Monitoring Program): Prior to any ground-disturbing activities within the Project Area, a Tribal Cultural Resource Mitigation and Monitoring Program (TCR MMP) shall be prepared by the qualified archaeologist. The TCR MMP shall incorporate the results of SWCA's *Tribal Cultural Resources Assessment for the Los Angeles County Metropolitan Transportation Authority's*	Retain a qualified archaeologist.	Construction Contractor	Metro	Preconstruction; Construction
	Prepare Tribal Cultural Resources Monitoring and Mitigation Program.	Qualified Archaeologist	Metro	Preconstruction; Construction
	Implement Tribal Cultural Resources Monitoring and Mitigation Program.	Construction Contractor/Qualified Archaeologist	Metro	Preconstruction; Construction

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
Transportation Communication Network Project report, and reasonable and feasible recommendations from tribal parties resulting from consultation. The TCR MMP shall include provisions for avoidance of unanticipated discoveries and procedures for the preservation of unanticipated discoveries where possible. The TCR MMP shall include, but not be limited to, provisions to conduct a worker training program, a monitoring protocol for ground-disturbing activities, discovery and processing protocol for inadvertent discoveries of tribal cultural resources, and identification of a curation facility should artifacts be collected. The TCR MMP shall require monitoring of ground-disturbing activities at all Site Locations and will provide a framework for assessing the geoarchaeological setting to determine whether sediments capable of preserving tribal cultural resources are present, and include a protocol for identifying the conditions under which additional or reduced levels of monitoring (e.g., spot-checking) may be appropriate at any given Site Location. The duration and timing of the monitoring shall be determined based on the rate of excavation, geoarchaeological assessment, and, if present, the quantity, type, spatial distribution of the materials identified, and input of the tribal consultant or their designated monitor. During monitoring, daily logs shall be kept and reported to Metro on a monthly basis. During ground-disturbing activities, the monitors shall have the authority to temporarily halt or redirect construction activities in soils that are likely to contain potentially tribal cultural resources, as determined by the qualified archaeologist in consultation with the tribal monitor. In the event that tribal cultural resources or potential tribal cultural resources are exposed during construction, work in the immediate vicinity of the find shall stop within a minimum of 25 ft or as determined by the qualified archaeologist in consultation with the tribal consultant based on the nature of the find and the potential for additional portions of the resource to remain buried in the unexcavated areas of the project site. The qualified archaeologist in consultation with the tribal consultant will evaluate the significance of the find and implement the protocol described in the TCR MMP before work can resume in the area surrounding the find that is determined to have sensitivity. Construction activities may continue in other areas in coordination with the qualified archaeologist and tribal consultant. Soils that are removed from the work site are considered culturally sensitive and will be subject to inspection on-site by the tribal and archaeological monitors. Provisions for inspection at an off-site location would be determined through consultation with the tribal and archaeological monitors, construction personnel, and Metro. Any tribal cultural resources that are not associated with a burial are subject to collection by the qualified archaeologist. The TCR MMP shall also summarize the requirements for coordination with consulting tribal parties in the event of a tribal cultural resource or potential tribal cultural resource is inadvertently discovered, as well as the applicable regulatory compliance measures or conditions of approval for inadvertent discoveries, including the discovery of human remains, to be carried out in concert with actions described in the TCR MMP and treatment plan prepared in compliance with Mitigation Measure TCR-3. The TCR MMP shall be prepared in compliance with Public Resources Code Section 5024.1, Title 14 California Code of Regulations, Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1. The TCR MMP shall be submitted to Metro at least 30				

Table IV-1 (Continued)
Mitigation Monitoring and Reporting Program

Project Design Feature or Mitigation Measure	Monitoring Action	Responsible Party	Enforcement Agency	Monitoring Phase
days prior to initiating ground-disturbing activities.				
Mitigation Measure MM-TCR-3 (Treatment of Known Tribal Cultural Resources): A treatment plan will be developed for any historical archaeological sites that may be adversely affected/significantly impacted by the Project, including but not limited to CA-LAN-1575/H. The treatment plan will be developed based on the known constituents to guide the post-discovery process and initial treatment requirements upon discovery. The treatment plan will outline data recovery procedures to be followed and shall require controlled archaeological excavation within the first eight feet (ft) at all Site Locations proposed to be located within known tribal cultural resources, specifically an excavation unit measuring 3.28 ft by 3.28 ft across extending to a depth of at least 4.92 ft below the unpaved surface, followed by the use of a 4 inch hollow stem hand-auger to a total depth of at least 9.84 ft below the unpaved surface. Subsequent mechanical drilling will be conducted in approximately 1.64-ft increments to a depth of approximately 20 ft below the surface. Sediments from each of the 1.64-ft mechanical excavation levels will be inspected for the presence of Native American objects or evidence of a tribal cultural resource, and relevant environmental information obtained from the sediments will be recorded. The treatment plan will include provisions to allow for standard mechanical excavation to resume at levels above these depths in the event that sufficient evidence is identified to demonstrate that the sediments are more than 20,000 years old. The treatment plan may be modified and updated depending on the nature of the discovery and consultation with the State Historic Preservation Office (SHPO) and consulting parties. The treatment plan would be developed so that treatment of historical resources meets the Secretary of the Interior's *Standards and Guidelines* (1983) for archaeological documentation, the California Office of Historic Preservation (OHP)'s *Archaeological Resources Management Report, Recommended Contents and Formats* (1989), the Advisory Council on Historic Preservation's publication *Treatment of Archaeological Properties: A Handbook*, and the Department of the Interior's Guidelines for Federal Agency Responsibility under Section 110 of the National Historic Preservation Act, and the Society for California Archaeology's *Guidelines for Determining the Significance of and Impacts to Cultural Resources and Fieldwork* and *Reporting Guidelines for Archaeological, Historic, and Tribal Cultural Resources*.	Develop a treatment plan for any historical archaeological sites that may be adversely affected/significantly impacted by the Project.	Qualified Archaeologist	Metro	Preconstruction; Construction
	Implement a treatment plan for any historical archaeological sites that may be adversely affected/significantly impacted by the Project.	Construction Contractor/ Qualified Archaeologist	Metro	Preconstruction; Construction

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

☒ County Clerk
County of: Los Angeles
Address: 12400 Imperial Hwy
Norwalk, CA 90650

From:
Public Agency: LA Metro
Address: One Gateway Plaza
Los Angeles, CA 90012
Contact: Shine Ling
Phone: (213)547-4326

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2022040363

Project Title: Transportation Communication Network

Project Applicant: Los Angeles County Metropolitan Transportation Agency

Project Location (include county): City of Los Angeles, Los Angeles County (see attatchment A)

Project Description:

Metro proposes to implement the Transportation Communication Network (TCN), which would provide a network of TCN Structures that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, increase communication, and provide for outdoor advertising that would be used to fund new and expanded transportation programs. Implementation of the Project would include the installation of up to 56 TCN Structures, all on Metro-owned property within the City of LA.

This is to advise that the LA County Metropolitan Transportation Authority has approved the above (☒ Lead Agency or ☐ Responsible Agency)

described project on 12/1/2022 (date) and has made the following determinations regarding the above described project.

1. The project [☒ will ☐ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☒ was ☐ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
One Gateway Plaza, Los Angeles, 90012

Signature (Public Agency): _____ Title: _____

Date: _____ Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Table 1
Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor's Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
FF-1	3	US-101 North Lanes at Union Station	5409023941	1,200 (1)	30	40	40
FF-2	3	US-101 South Lanes at Center Street	5173019901	672 (2)	14	48	72
FF-3	3	US-101 North Lanes at Keller Street	5409021902	672 (2)	14	48	72
FF-4	3	US-101 South Lanes at Beaudry Street	5160024904	672 (2)	14	48	75
FF-5	1	US-101 North Lanes, Northwest of Lankershim Boulevard	2423038970	672 (2)	14	48	65
FF-6	3	I-5 South Lanes at North Avenue 19	5415002903	672 (2)	14	48	85
FF-7	3	I-5 North Lanes at San Fernando Road	5445007903	672 (2)	14	48	85
FF-8	3	I-5 South Lanes and Exit Ramp to I-10	5410009901	672 (2)	14	48	85
FF-9	3	I-10 West Lanes (Bus Yard)	5410009901	672 (2)	14	48	50
FF-10	3	I-10 West Lanes and Entrance Ramp from I-5	5170010901	672 (2)	14	48	95
FF-11	3	I-10 East Lanes and Exit Ramp to SR-60 and I-5	5170010901	672 (2)	14	48	95
FF-12	3	I-10 West Lanes at Griffin Avenue and East 16th Street	5132029905	672 (2)	14	48	80
FF-13	1	SR-2 South Lanes Northeast of Casitas Avenue	5436033906	672 (2)	14	48	85
FF-14	1	SR-2 North Lanes Northeast of Casitas Avenue	5442001900	672 (2)	14	48	85
FF-15	1	SR-170 South Lanes at Raymer Street	2324002901	672 (1)	14	48	40
FF-16	1	SR-170 North Lanes North of Sherman Way	2307021901	672 (1)	14	48	40
FF-17	1	I-5 North Lanes South of Tuxford Street	2408038900	672 (2)	14	48	85
FF-18	1	I-5 South Lanes South of Tuxford Street	2632001901	672 (2)	14	48	85
FF-19	1	SR-118 East of San Fernando Road	2523001900	672 (2)	14	48	80
FF-20	1	SR-118 East of San Fernando Road	2523001900	672 (2)	14	48	80
FF-21	2	I-110 South Lanes at Exposition Boulevard	5037030902	672 (2)	14	48	80

Table-1 (Continued)
Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor's Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
FF-22	1	I-5 North Lanes at San Fernando Road	2603001901	672 (2)	14	48	65
FF-23	2	I-110 North Lanes at Exposition Boulevard	5122024909	672 (2)	14	48	80
FF-24	1	I-5 South Lanes at San Fernando Road and Sepulveda Boulevard	2605001915	672 (2)	14	48	95
FF-25	1	I-405 South Lanes at Victory Boulevard	2251002905	672 (2)	14	48	80
FF-26	2	I-405 North Lanes at Exposition Boulevard	4256010902	672 (2)	14	48	95
FF-27	2	I-405 South Lanes at Exposition Boulevard	4260039906	672 (1)	14	48	95
FF-28	2	I-10 West at Robertson Boulevard	4313024906	672 (1)	14	48	80
FF-29	2	SR-90 East at Culver Boulevard	4211007907	672 (2)	14	48	80
FF-30	2	SR-90 West at Culver Boulevard	4223009906	672 (2)	14	48	80
FF-31	2	I-105 West Lanes at Aviation Boulevard	4129028901	672 (2)	14	48	95
FF-32	2	I-105 East Lanes at Aviation Boulevard	4138001902	672 (2)	14	48	95
FF-33	2	I-110 South Lanes at Slauson Avenue	5001037907	672 (1)	14	48	80
FF-34	2	I-110 North Lanes at Slauson Avenue	5101040900	672 (2)	14	48	80

sf = square feet

ft = feet

Source: Eyestone Environmental, 2022.

Table-2
Non-Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
NFF-1	1	Northeast corner of Vermont Avenue and Sunset Boulevard	5542015900	300 (2)	10	30	30
NFF-2	3	Spring Street Bridge, 326 feet North of Aurora Street	5409002900	300 (2)	10	30	65
NFF-3	1	Northwest corner of Lankershim Boulevard and Chandler Boulevard	2350016906	300 (1)	10	30	30
NFF-4	1	Northwest corner of Lankershim Boulevard and Universal Hollywood Drive	2423036919	300 (1)	10	30	30
NFF-5	1	Southwest corner of Lankershim Boulevard and Universal Hollywood Drive	2423036919	300 (1)	10	30	30
NFF-6	3	Southwest corner of 4th Street and Hill Street	5149015902	300 (1)	10	30	30
NFF-7	2	Venice Boulevard, 240 feet West of Robertson Boulevard	4313024909	300 (1)	10	30	30
NFF-8	3	Southeast corner of Alameda Street and Commercial Street	5173001901	672 (2)	14	48	60
NFF-9	1	Northeast corner of Van Nuys Boulevard and Orange Line Busline	2240008905	300 (2)	10	30	30
NFF-10	1	Southeast corner of Sepulveda Boulevard and Erwin Street	2242001904	300 (1)	10	30	30
NFF-11	2	Southwest of Crenshaw Boulevard, 175 feet South of 67th Street	4006025900	300 (1)	10	30	30
NFF-12	2	Southeast corner of Crenshaw Boulevard and Exposition Boulevard	5044002900	300 (2)	10	30	30
NFF-13	3	Southeast corner of East Cesar Chavez Avenue and North Vignes Street	5409023941	300 (2)	10	30	30
NFF-14	2	Pico Boulevard and Exposition Boulevard, South of rail	4260025902	300 (1)	10	30	30
NFF-15	2	Pico Boulevard, 445 feet West of Sawtelle Boulevard	4260039906	300 (1)	10	30	30
NFF-16	3	Southeast corner of South Central Avenue and East 1st Street	5161018903	300 (2)	10	30	30

Table -2 (Continued)
Non-Freeway Facing TCN Structure Locations

Sign ID	Map No.	Location	Assessor Parcel Number	sf per Digital Display (No. of Digital Display Faces per TCN Structure)	Digital Display Height (ft)	Digital Display Width (ft)	Sign Height (from grade)
NFF-17	2	Century Boulevard, 152 feet West of Aviation Boulevard	4125026904	672 (2)	14	48	80
NFF-18	2	Southwest Aviation Boulevard and South of Arbor Vitae Street	4125020907	672 (2)	14	48	30
NFF-19	2	Northwest corner of Vermont Avenue and Beverly Boulevard	5520019900	300 (2)	10	30	30
NFF-20	2	Southwest corner of Santa Monica Boulevard and Vermont Avenue	5538022903	300 (2)	10	30	30
NFF-21	3	South of 4th Street 210 feet East of South Santa Fe Avenue	5163017900	300 (2)	10	30	65
NFF-22	3	Northwest corner of East 7th Street and South Alameda Street	5147035904	300 (2)	10	30	30

sf = square feet

ft = feet

Source: Eyestone Environmental, 2022.

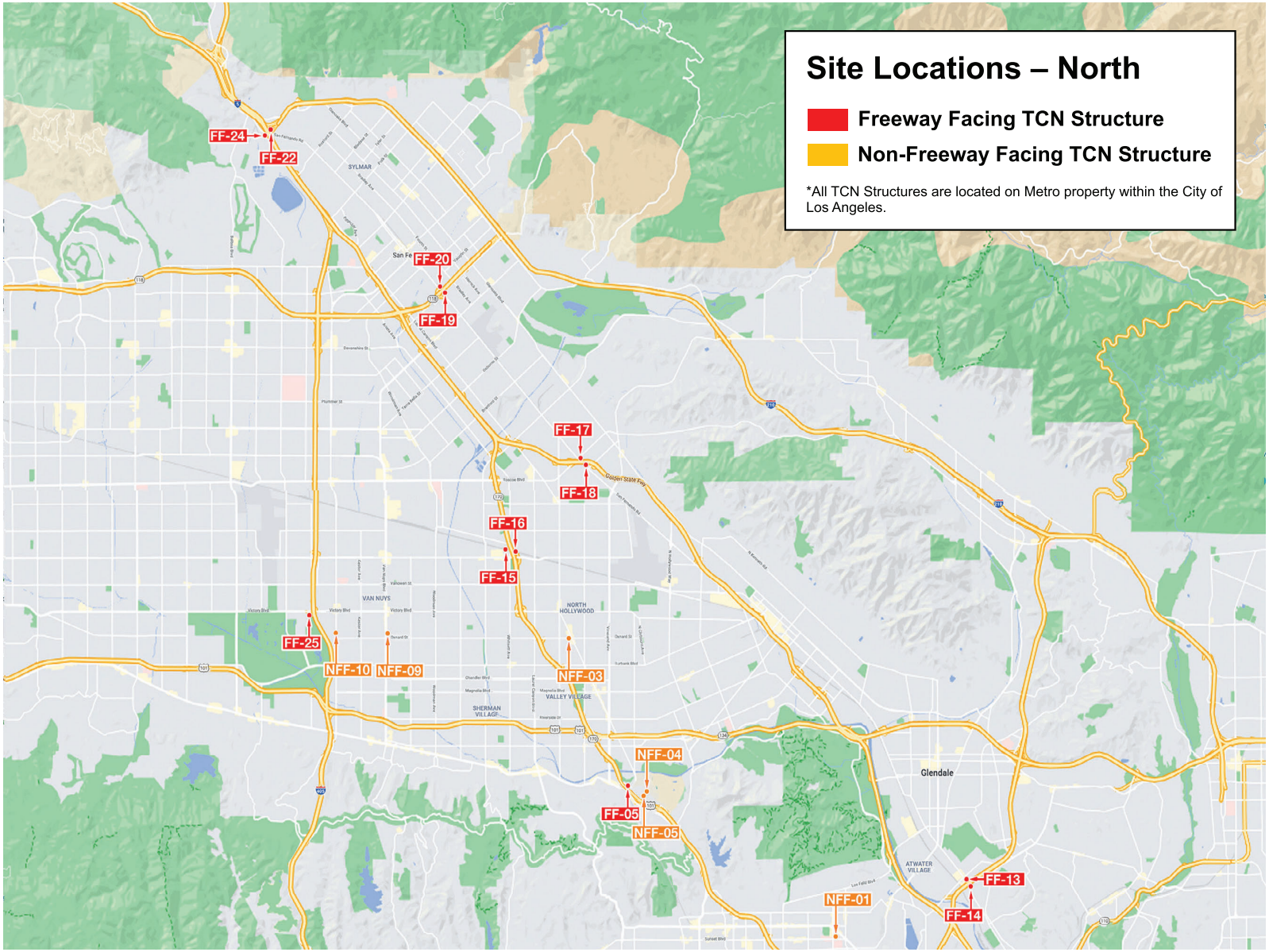


Figure -1

Regional Project Location Map – North

Source: ALLVISION, 2022.

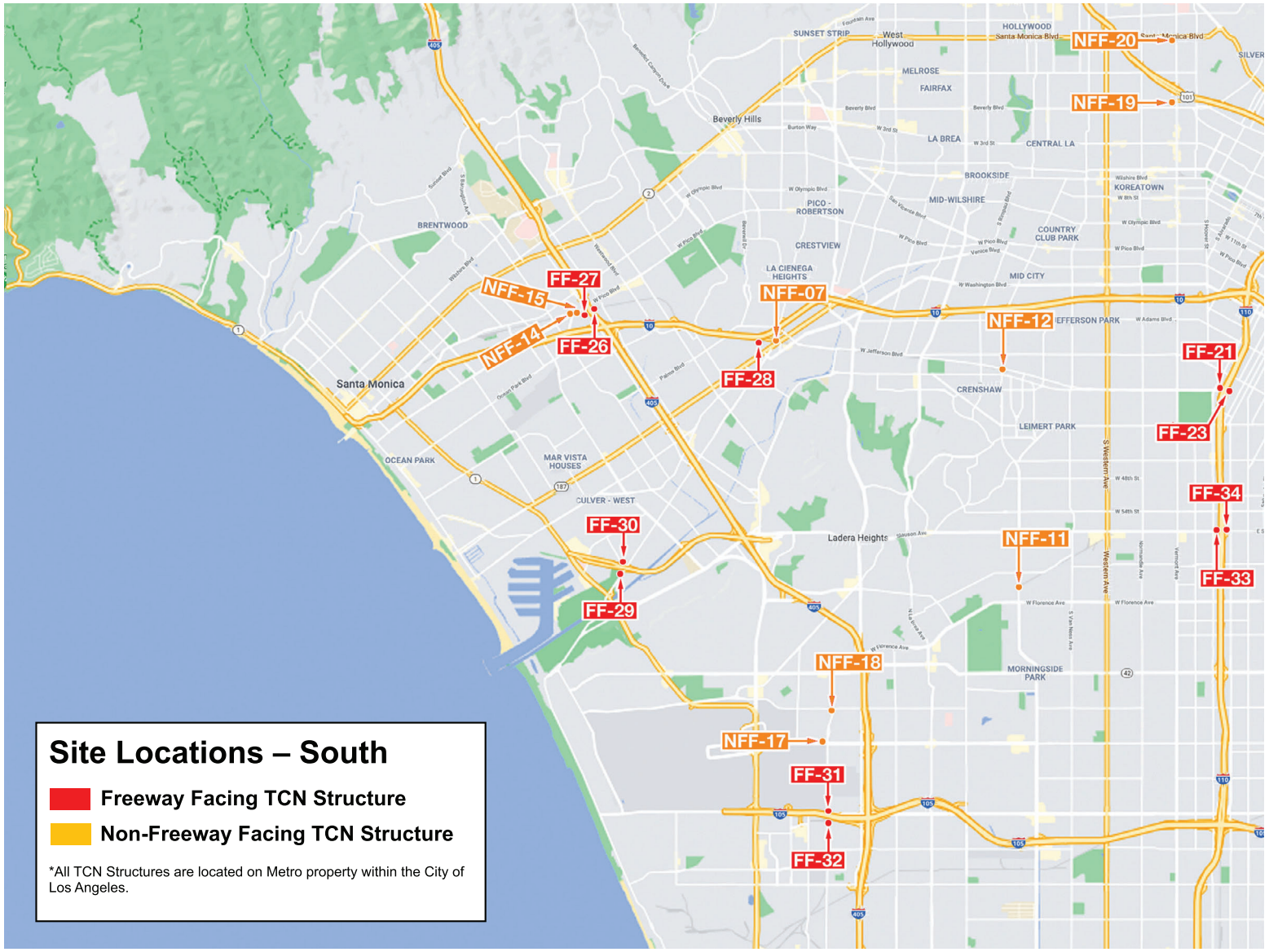


Figure -2

Regional Project Location Map – South

Source: ALLVISION, 2022.

Figure -3

Regional Project Location Map – Downtown

Source: ALLVISION, 2022.

Los Angeles County
Metropolitan Transportation Authority

TRANSPORTATION COMMUNICATION NETWORK ENVIRONMENTAL IMPACT REPORT

PLANNING & PROGRAMMING COMMITTEE
WEDNESDAY, NOVEMBER 16, 2022
LEGISTAR FILE: 2022-0695

Metro

2022-0695 - Recommendation

CONSIDER:
A. APPROVING the Transportation Communication Network (TCN) Project.

B. CERTIFYING, in accordance with the California Environmental Quality Act (CEQA), the Final Environmental Impact Report (Final EIR) for the Transportation Communication Network, if the Board concludes that it satisfies the requirements of CEQA and reflects the Board's independent judgment following CEQA Guidelines, section 15090.

C. ADOPTING, in accordance with CEQA, the:
1. Findings of Fact, and
2. Mitigation Monitoring and Reporting Program; and

D. AUTHORIZING the Chief Executive Officer to file a Notice of Determination with the Los Angeles County Clerk and the State of California Clearinghouse.

2022-0695 - Purpose

- TCN will create a multidisciplined and interdepartmental communication network through digital displays
  - Intelligent Transportation System, Travel Demand and Public Event Management
  - Public Transit Promotion and Metro Communications
  - Multilingual Public Safety and Emergency Messaging

- Will remove approximately 200 existing billboard locations

- Will generate a revenue stream for transportation uses

2022-0695 - Background

- Board Action (File # 2021-0062) Memorandum of Agreement (MOA) with City of Los Angeles approved by Board.
- City Council approved the MOA on December 16, 2021
- No out-of-pocket capital costs to Metro or City
- 50% revenue split between Metro and City of LA

2022-0695 - CEQA

- Notice of Preparation issued April 18, 2022

- Scoping meetings on Thursday May 19, 2022, and Saturday May 21, 2022.

- Comment period extended 30 days to 45 days (September 9 – October 24)
  - In addition to required public agency notices
    - Published in Los Angeles Times
    - 17,247 postcards mailed
    - 250,000 emails

- New sign boards studied under EIR
  - 34 freeway facing structures
  - 22 non-freeway facing structures

- Equity considerations
    - 47 (57%) of existing sign structures to be removed are in Equity Focused Communities (EFCs)
    - 17 (30%) new signboards are in EFCs

2022-0695 - Next Steps

- City to consider adoption of an ordinance to authorize the TCN structures (City Council passed motion on June 28 to draft ordinance)
- Review and approval of sign structures to be done through City ordinance
- Continued community outreach
- Negotiations with outdoor advertising companies and take downs and allocation of new sign structures

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0733, **File Type:** Resolution **Agenda Number:**

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: ADOPTION OF THE METRO 2022 ALL-HAZARD MITIGATION PLAN

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

APPROVE the All-Hazard Mitigation Plan Resolution in Attachment A that:

A. ADOPTS the Metro 2022 All-Hazards Mitigation Plan in Attachment B;

B. AUTHORIZES the Emergency Management Department to forward the resolution of adoption to FEMA for issuance of the Final Letter of Approval. Upon receipt, the Final Letter of Approval will be included in the Final Plan; and

C. AUTHORIZES the Emergency Management Department, in collaboration with Countywide Planning and Development, to pursue FEMA preparedness grant funding to support all Metro departments and collaborative stakeholders.

ISSUE

The Disaster Mitigation Act of 2000 requires government entities to develop, implement, and update hazard mitigation plans recognizing potential natural hazards and develop mitigation measures that reduce associated risks and vulnerabilities. The plan is a tool to aid in facility infrastructure planning and improvements, including climate resiliency, and is a requirement to apply for the federal Hazard Mitigation Grant Program (HMGP) and the new Building Resilient Infrastructure and Communities (BRIC) Grant Program (previously known as the Pre-Disaster Mitigation Grant Program).

BACKGROUND

Metro has been ineligible to apply for the Hazard Mitigation Grant Programs without a Board adopted and FEMA approved All-Hazard Mitigation Plan (AHMP). Over the past ten years an estimated $15B has been awarded by FEMA to states, local communities and special districts, like Metro, to reduce their vulnerability to disasters and natural hazards. FEMA has identified *Transportation* as the first Emergency Support Function needed to help communities increase their resilience and respond to and recover after a major disaster. This will aid Metro in supporting important but underfunded projects.

As part of the planning process, the Planning Team developed a Mitigation Actions Matrix that identified current and future programs and projects related to the vulnerability of Metro assets to natural hazards including those identified in the 2016 Active Transportation Strategic Plan and the 2019 Metro Climate Action and Adaptation Plan. Additional mitigation strategies were derived directly from the Planning Team members based upon their knowledge and/or experience of Metro assets within the region. The All-Hazards Mitigation Plan reflects the following goals: (1) protect life and property, (2) enhance public awareness, (3) protect natural systems, (4) promote partnerships and implementation, and (5) enhance emergency services. The adoption of the AHMP will allow Metro to apply for FEMA emergency preparedness grant funding programs. The AHMP will be a living document and will be reviewed by the Planning Team members on a biennial basis to ensure strategies in the Mitigation Actions Matrix are implemented based on grant awards.

DISCUSSION

In 2021, the HMGP received a commitment from President Biden of more than $3.46 Billion to increase resiliency and subsequently $1 Billion to the BRIC Program nationwide. This is Metro's first Local All-Hazard Mitigation Plan and has received the Federal Emergency Management Agency's (FEMA) approval on July 13, 2022, with FEMA full acceptance, pending Metro Board adoption within twelve months from the approval date.

Metro's Emergency Management began the All-Hazard Mitigation Plan (AHMP) process in May 2019 with contracted services from General Technologies and Solutions and Emergency Planning Consultants. Metro's Hazard Mitigation Planning Team consisted of 45 representatives from twenty-six departments, with involvement in Metro assets including facilities and infrastructure management. To develop the First Draft Plan, the Planning Team conducted four strategy workshops over a twelve-month period. As a federal requirement of the planning process, the general public and external agencies were invited to participate by providing comments and input into iterations of several drafts, resulting in the final draft being submitted to and conditionally approved by FEMA, pending Metro Board adoption. The public and external agencies were informed of the Plan's availability through Community Relations email blasts, Metro's The Source online Blog and posting on Metro's public facing website.

DETERMINATION OF SAFETY IMPACT

The projects identified in the All-Hazard Mitigation Plan, will have a direct impact on the safety of our customers during and after a natural disaster. These projects are aimed at lessening the impacts and effects of natural disasters for our customers, employees and assets.

FINANCIAL IMPACT

Adoption of the resolution will allow Metro to apply for grant funding. The Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) grant program both require an approved All-Hazard Mitigation Plan as a prerequisite for grant eligibility and access to these funding sources.

Impact to Budget
Adoption of the resolution has no impact on the FY 2023 Budget. In future fiscal years grant dollars Metro was previously ineligible for, will be pursued to offset the costs of projects identified in the All-Hazard Mitigation Plan.

EQUITY PLATFORM

With public transit being largely used in Los Angeles County by Equity Focus Communities and by vulnerable groups, this plan has identified Metro agency-wide facility assets, their current vulnerabilities to natural hazards and climate change, and mitigation strategies to prevent or minimize risks to Metro properties, which benefits all public riders. There may be some burdens created for residents and businesses at the initiation and implementation of specific projects, however, the benefit of mitigating projects within the AHMP would be less severe than the loss of critical services and the large economic impact on the community it serves. Metro is responsible for prioritizing projects submitted for mitigation funding, based on recent natural disasters and available funds. Metro commits to prioritizing projects that greatly impact Equity Focused Communities to help lessen service interruption and recovery time for service restoration.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan goal # 1, *Provide high-quality mobility options that enable people to spend less time traveling*. This supports improvements to Metro's current assets to decrease transit system delays due to inclement weather, or other natural disasters, aiding in recovery operations to restore service delivery. It also supports investing in infrastructure improvements and mitigating the impacts of climate change to Metro assets.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the resolution in Attachment A. Staff does not recommend this alternative because it will impede Metro's eligibility to apply for grant funding from large federal funding sources.

NEXT STEPS

Adopt the attached Resolution, finalize the federal hazard mitigation planning and approval process. Emergency Management staff will then work with internal stakeholders to apply for grant funding to support projects identified in the All-Hazard Mitigation Plan.

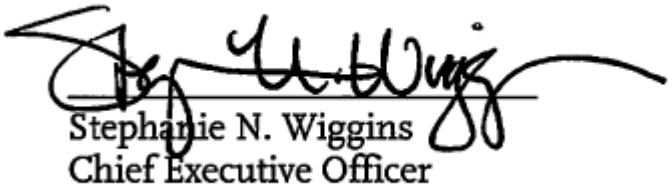
ATTACHMENTS

Attachment A - All-Hazard Mitigation Plan Resolution
Attachment B - Metro 2022 All-Hazard Mitigation Plan
Attachment C - Federal Emergency Management Agency Approvable Pending Adoption Notice LA County Metro All-Hazard Mitigation Plan
Attachment D - Federal Emergency Management Agency Region IX Local Mitigation Plan Review

Tool, July 13, 2022

Prepared by: Aldon Bordenave, Sr. Director, Emergency Services and Homeland Security, (213) 922-4507
Moniek Pointer, Manager, Emergency and Homeland Security Preparedness, (213) 922-4509

Reviewed by: Gina Osborn, Chief Safety Officer, (213) 922-3055



Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A

Los Angeles County Metropolitan Transportation Authority

Board Resolution

Adoption of the Metro 2022 All-Hazards Mitigation Plan (AHMP)

WHEREAS, the Los Angeles County Metropolitan Transportation Authority is vulnerable to natural and other hazards which may result in loss of life and property, economic hardship, and threats to public health and safety; and

WHEREAS, Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000) requires state, local, and other government entities develop and submit for approval a hazard mitigation plan that outlines processes for identifying their respective natural and other hazards, risks, and vulnerabilities; and

WHEREAS, the Los Angeles County Metropolitan Transportation Authority acknowledges the requirements of Section 322 of DMA 2000 to prepare the 2022 All-Hazards Mitigation Plan in order to be eligible for pre- and post-disaster federal hazard mitigation grant funds; and

WHEREAS, the 2022 All-Hazards Mitigation Plan developed by an Emergency Management led Planning Team with representatives from numerous internal departments, and opened the planning process to the general public and external agencies; and

WHEREAS, a public involvement process consistent with the requirements of DMA 2000 was conducted to develop the All-Hazards Mitigation Plan; and

WHEREAS, the 2022 All-Hazards Mitigation Plan recommends mitigation activities that will reduce losses to life and property affected by natural and other hazards that face the Los Angeles County Metropolitan Transportation Authority's service area; and

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AGENCY, RESOLVES AS FOLLOWS:

SECTION 1. The Board of Directors finds that all of the facts set forth in the Recitals of this Resolution are true and correct.

SECTION 2. The Board of Directors hereby approves and adopts the 2022 All-Hazards Mitigation Plan.

CERTIFICATION

The undersigned, duly qualified and acting as the Clerk of the Los Angeles County Metropolitan Transportation Authority, certifies that the foregoing is a true and correct representation of the Resolution adopted at a legally convened meeting of the Board of Directors of the Los Angeles County Metropolitan Transportation Authority held on Wednesday, October 19, 2022.

AN	JDW	JH	KB	MB	JB	FD	EG	PK	SK	HM	TS	HS

DATED: October 19, 2022

_____

Collette Langston, Metro Board Clerk

Los Angeles County
Metropolitan Transportation Authority

Metro

July 13, 2022 | All-Hazards Mitigation Plan

Metro

Credits

Q&A | ELEMENT A: PLANNING PROCESS | A1c.

Q: Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.) (Requirement §201.6(c)(1))

A: See **Hazard Mitigation Planning Team** below.

Hazard Mitigation Planning Team:

Name	*Department*	*Position Title*
Metro		
Albert Escarcega	Information Technology	Systems Maintenance Supervisor
Aldon Bordenave, Co-Chair	Emergency Management	Manager
Andrina Dominguez	Environmental Compliance and Sustainability	Senior Environmental Specialist
Androush Danielians	Projects Engineering	Executive Officer
Anthony Chua	Information Technology	Senior Software Engineer
Ashad Hamideh	Countywide Planning and Development	Senior Director
Aspet Davidian	Program Management	Deputy Executive Officer
Bob Spadafora	Rail Fleet Services	Senior Executive Officer
Brady Branstetter	Facilities Maintenance	Deputy Executive Officer
Brian Balderrama	Regional Rail	Deputy Executive Officer
Brian Boudreau	Program Control	Senior Director
Chirag Rabari	Transportation Planning	Manager
Chris Limon	Facilities Management	Deputy Executive Officer (Interim)
Craig Reiter	Environmental Compliance and Sustainability	Senior Director
Dana De Vera	Project Management	Senior Director
Denise Longley	Asset Management	Deputy Executive Officer
Donell Harris	Bus Maintenance	Division Maintenance Superintendent
Eddie Boghossian	Corporate Safety	Senior Director
Edna Stanley	Rail Operations	Service Operations Superintendent
Errol Taylor	Maintenance & Engineering	Executive Officer
Gelito Ocdamia	Project Engineering – Facilities – Systems	Director
Heather Severin	Environmental Compliance and Sustainability	Senior Manager
James Jimenez	Quality Assurance	Senior Manager
James Pachan	Bus Maintenance	Division Maintenance Superintendent
James D. Andrew	Transportation Planning	Manager
Janice Lim	Cyber Security	Deputy Executive Officer
Jeanet Owens	Regional Rail	Senior Executive Officer

Name	Department	Position Title
Metro		
Jerry Whelan	Wayside SCADA	Senior Engineer
John Slay	General Services	Facilities Maintenance Supervisor
Jonathan Hofert	Project Management - Engineering	Director
Karen Parks	Systems Security & Law Enforcement	Manager
Kate Amissah	Regional Rail	Senior Engineer
Mario Del Rosario	Project Engineering: Facilities – Systems	Senior Director
Marshall Epler	Maintenance and Engineering	Deputy Executive Officer
Moniek Pointer, Chair	Emergency Management	Manager
Mike Ornelas	Rail Fleet Services	Senior Director
Nadine Triche-Williams	Bus Operations	Director
Patrick Soto	Information Technology	Senior Programmer
Raymond Lopez	Corporate Safety	Deputy Executive Officer
Robert Castanon	Rail Operations	Service Operations Superintendent
Ron Tien	Project Engineering	Senior Director
Roger Largaespada	Information Technology	Senior Director
Romerica Eller	Finance / Accounting	Director
Stephen Toms	Asset Management	Project Manager
Steve Jaffe	General Services	Deputy Executive Officer
Thinh Dinh	Project Engineering: Facilities – Systems	Senior Director
Timothy Lindholm	Construction Management	Senior Executive Officer
Ty Henderson	Transit Security	Lieutenant

Acknowledgements

LA Metro Board of Directors

- ✓ **Ara Najarian, Chair, Appointee of Los Angeles County City Selection Committee, Council Member, City of Glendale**
- ✓ **Jacquelyn Dupont-Walker, First Vice Chair, Board Member, Appointee of Mayor of the City of Los Angeles**
- ✓ **Janice Hahn, Second Vice Chair, Los Angeles County Board Supervisor, Fourth Supervisorial District**
- ✓ **Kathryn Barger, Board Member, Los Angeles County Board Supervisor, Fifth Supervisorial District**
- ✓ **Mike Bonin, Board Member, Appointee of Mayor of the City of Los Angeles, Council Member, City of Los Angeles**
- ✓ **James Butts, Board Member, Appointee of Los Angeles County City Selection Committee, Southeast Long Beach sector**

- ✓ **Fernando Dutra, Board Member, Appointee of Los Angeles County City Selection Committee, Southwest Corridor sector**
- ✓ **Eric Garcetti, Board Member, Mayor of the City of Los Angeles**
- ✓ **Paul Krekorian, Board Member, Appointee of Mayor of the City of Los Angeles**
- ✓ **Sheila Kuehl, Board Member, Los Angeles County Board Supervisor, Third Supervisorial District**
- ✓ **Holly Mitchell, Board Member, Los Angeles County Board Supervisor, Second Supervisorial District**
- ✓ **Tim Sandoval, Board Member, Appointee of Los Angeles County City Selection Committee, Council Member, San Gabriel Valley sector**
- ✓ **Hilda L. Solis, Board Member, Los Angeles County Board Supervisor, First Supervisorial District**
- ✓ **Gloria Roberts, Nonvoting Board Member, District 7 Director (Interim), California Department of Transportation (Caltrans), Appointee of the Governor of California**

Point of Contact

To request information or provide comments regarding this mitigation plan, please contact:

Name & Position Title	Moniek Pointer, Hazard Mitigation Project Manager Emergency & Homeland Security Preparedness
Email	PointerMo@metro.net
Mailing Address	One Gateway Plaza, Los Angeles 90012
Telephone Number	213-617-6227
Name & Position Title	Aldon P. Bordenave, Jr., MEP, Hazard Mitigation Programs Advisor Emergency & Homeland Security Preparedness
Email	bordenavea@metro.net
Mailing Address	One Gateway Plaza, Los Angeles 90012
Telephone Number	213-617-6223

Consulting Services

General Technologies and Solutions

- ✓ Project Manager and Critical Assets Mapping: Rawad Hani, PE, TE, Principal

Emergency Planning Consultants

- ✓ Principal Planner: Carolyn J. Harshman, CEM, President
- ✓ Planning Assistant: Megan R. Fritzler, BA

Mapping

The maps in this plan were provided by the Los Angeles County Metropolitan Transportation Authority, County of Los Angeles, Federal Emergency Management Agency (FEMA), or were acquired from public Internet sources. Care was taken in the creation of the maps contained in this Plan, however they are provided "as is". The Los Angeles County Metropolitan Transportation

Authority cannot accept any responsibility for any errors, omissions or positional accuracy, and therefore, there are no warranties that accompany these products (the maps). Although information from land surveys may have been used in the creation of these products, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.

Mandated Content

In an effort to assist the readers and reviewers of this document, the jurisdiction has inserted "markers" emphasizing mandated content as identified in the Disaster Mitigation Act of 2000 (Public Law – 390). Following is a sample marker:

EXAMPLE

Q&A | ELEMENT A: PLANNING PROCESS | A1a.
Q Does the plan document the planning process, including how it was prepared (with a narrative description, meeting minutes, sign-in sheets, or another method)? (Requirement §201.6(c)(1)) **A:**

Table of Contents

Part I: PLANNING PROCESS

Introduction

Q&A | ELEMENT A: PLANNING PROCESS | A1b.

Q: Does the plan list the jurisdiction(s) participating in the plan that are seeking approval? (Requirement §201.6(c)(1))
A: See **Introduction** below.

The Hazard Mitigation Plan (Mitigation Plan) was prepared in response to the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (also known as Public Law 106-390) requires state and local governments (including special districts and joint powers authorities) to prepare mitigation plans to document their mitigation planning process, and identify hazards, potential losses, mitigation needs, goals, and strategies. This type of planning supplements The Los Angeles County Metropolitan Transportation Authority's emergency management planning programs. This is the agency's first hazard mitigation plan.

The Los Angeles County Metropolitan Transportation Authority will be referred to as Metro from this point forward.

Planning Approach

The four-step planning approach outlined in the FEMA publication, *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3) was used to develop this plan:

- ✓ **Develop mitigation goals and objectives -** The risk assessment (hazard characteristics, inventory, and findings), along with municipal policy documents, were utilized to develop mitigation goals and objectives.
- ✓ **Identify and prioritize mitigation actions -** Based on the risk assessment, goals and objectives, existing literature/resources, and input from participating entities, mitigation activities were identified for each hazard.
- ✓ **Prepare implementation strategy -** Generally, high priority activities are recommended for implementation first. However, based on organizational needs and goals, project costs, and available funding, some medium or low priority activities may be implemented before some high priority items.
- ✓ **Document mitigation planning process -** The mitigation planning process is documented throughout this plan.

Q&A | ELEMENT A: PLANNING PROCESS | A3

Q: Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))
A: See **Stakeholders** below.

Stakeholders

A Hazard Mitigation Planning Team (Planning Team) consisting of Metro staff working with General Technologies and Solutions and Emergency Planning Consultants to create the hazard mitigation plan. **The Planning Team served as the primary stakeholders throughout the planning process.**

Following input from the Planning Team on the First Draft Plan, the Second Draft Plan was shared with Metro's Executive Team. Their input was incorporated into the Third Draft Plan and details included in **Attachments**. Additionally, as required by DMA 2000, the Planning Team involved "the public". The general public and external agencies were invited to contribute to the mitigation plan during the plan writing phase. The Third Draft Plan was announced and posted on Metro's website on September 15 – October 18, 2021. External agencies were emailed information about the Plan's availability on September 15, 2021.

Metro's Executive Team, the general public, and external agencies served as secondary stakeholders with opportunity to contribute to the plan during the Plan Writing Phase of the planning process.

Q&A | ELEMENT C. MITIGATION STRATEGY | C2

Q: Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))
A: See **NFIP Participation** below.

National Flood Insurance Program

Established in 1968, the NFIP provides federally backed flood insurance to homeowners, renters, and businesses in communities that adopt and enforce floodplain management ordinances to reduce future flood damage. Metro does not control land use so has no floodplain management ordinance" or a floodplain administrator. Furthermore, the Metro service area and its facilities rely on infrastructure (roads, bridges, etc.) throughout an expansive area included in many Flood Insurance Rate Maps (FIRM) that show floodways, 100-year flood zones, and 500-year flood zones.

NFIP Participation

Metro facilities are located in Los Angeles County, who participates in NFIP. The FEMA FIRM maps for the project area were last updated December 21, 2018. It's important to note that FEMA flood maps are not entirely accurate. The studies and maps represent flood risk at the point in time when FEMA completed the studies and does not incorporate planning for floodplain changes in the future due to new development. Although FEMA is considering changing that policy, it is optional for local communities. See **Flood Hazards** for information on flood hazards impacting the service area.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B4

Q: Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))
A: See **Repetitive Loss Properties** below.

Repetitive Loss Properties

According to FEMA resources, none of the Metro facility locations are designated as a Repetitive Loss Property (RLPs).

Repetitive Loss Properties (RLPs) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation programs. Unlike a Countywide program, the Floodplain Management Plan (FMP) for repetitive loss properties involves highly diversified property profiles, drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. The objective of an FMP is to provide specific potential mitigation measures and activities to best address the problems and needs of communities with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period.

Planning Process

Throughout the project, the Planning Team served as the primary stakeholders while also making a concerted effort to gather information from the general public, external agencies (joint powers authority jurisdictions, utility providers and special districts). In addition, the Planning Team solicited information from agencies and people with specific knowledge of hazards and past historical events, as well as building codes and facilities maintenance planning. The hazard mitigation strategies contained in this plan were developed through an extensive planning process involving Metro staff, general public, and external agencies.

Following review and input by the Planning Team to the First Draft Plan, next (still during the Plan Writing Phase), the Second Draft Plan was shared with Metro's Executive Team. Their input was incorporated into a Third Draft Plan that will be shared with the general public and external agencies (joint powers authority jurisdictions, utility providers, special districts, etc.). The general public and external agencies will serve as the secondary stakeholders. Next, the comments gathered from the secondary stakeholders will be incorporated into a Fourth Draft Plan which will be submitted to Cal OES and FEMA along with a request for a determination of "approval pending adoption."

Next, the Planning Team will complete amendments to the Plan to reflect mandated input by Cal OES and FEMA. The Final Draft Plan will then be posted in advance of Metro's Board of Directors public meeting. Any comments gathered will be included in the staff report to the Metro Board of Directors. Following adoption by the Board of Directors, proof of adoption will be forwarded to FEMA with a request for approval. The FEMA Letter of Approval will be included in the Final Plan. The planning process described above is portrayed below in a timeline:

Q&A | ELEMENT A: PLANNING PROCESS | A1a.
Q: Does the plan document the planning process, including how it was prepared (with a narrative description, meeting minutes, sign-in sheets, or another method)? (Requirement §201.6(c)(1)) **A:** See **Plan Methodology and Planning Phases Progression** below.
Q&A | ELEMENT A: PLANNING PROCESS | A3
Q: Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1)) **A:** See **Planning Phases Progression** below.

Figure: Planning Phases Progression

PLANNING PHASES PROGRESSION				
Plan Writing Phase (First, Second, Third Draft Plan)	**Plan Review Phase (Fourth Draft Plan)**	**Plan Adoption Phase (Final Draft Plan)**	**Plan Approval Phase (Final Plan)**	**Plan Implementation Phase**
• Planning Team input – research, meetings, writing, review of First Draft Plan • Incorporate input from the Planning Team into Second Draft Plan • Invite Metro Executive Team to provide input. Information gathered reflected in Third Draft Plan. • Public and external agencies via email and web posting to review, comment, and contribute to the Third Draft Plan • Incorporate input into the Fourth Draft Plan	• Fourth Draft Plan sent to Cal OES and FEMA for conditional approval • Address any mandated revisions identified by Cal OES and FEMA into Final Draft Plan	• Post public notice of Board of Directors meeting along with the Final Draft Plan • Final Draft Plan distributed to Board of Directors in advance of meeting • Present Final Draft Plan to the Board of Directors for adoption • Board of Directors adopt Plan	• Submit Proof of Adoption to FEMA with request for final approval • Receive FEMA Letter of Approval • Incorporate FEMA approval and Board of Directors resolution into the Final Plan	• Conduct bi-annual Planning Team meetings • Integrate mitigation action items into budget and other funding and strategic documents

Q&A | ELEMENT E: PLAN ADOPTION | E1

Q: Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))
A: See **Plan Adoption Process** below.

Plan Adoption Process

Adoption of the plan by the local governing body demonstrates Metro's commitment to meeting mitigation goals and objectives. Governing body approval legitimizes the plan and authorizes responsible agencies to execute their responsibilities.

The Third Draft Plan was submitted to Cal OES and FEMA for review and approval. FEMA issued an Approval Pending Adoption on _____ (TBD) requiring the adoption of the Plan by the Metro Board of Directors. The adoption resolution was submitted to FEMA along with a request for a FEMA Letter of Approval.

In preparation for the public meeting with the Board of Directors, the Planning Team prepared a Staff Report including an overview of the Planning Process, Risk Assessment, Mitigation Goals,

and Mitigation Actions. The staff presentation concluded with a summary of the input received during the public review of the document. The meeting participants were encouraged to present their views and make suggestions on possible mitigation actions.

The FEMA Approval Pending Adoption was received on July 13, 2022. The Board of Directors is scheduled to review and adopt the plan ion _____. The Board voted _____ (example: to adopt) the hazard mitigation plan. The Resolution of adoption is in the **Attachment: Board Resolution**.

Plan Approval

FEMA approved the Plan on ___ (date). A copy of the FEMA Letter of Approval is in the **Attachment: FEMA Letter of Approval**.

Q&A | ELEMENT A: PLANNING PROCESS | A1a.
Q: Does the plan document the planning process, including how it was prepared (with a narrative description, meeting minutes, sign-in sheets, or another method)? (Requirement §201.6(c)(1)) **A:** See **Planning Team Involvement** below.

Planning Team Involvement

The Planning Team, with assistance from Emergency Planning Consultants, identified and profiled hazards; determined hazard rankings; estimated potential exposure or losses; evaluated development trends and specific risks; and developed mitigation goals and action items.

The Planning Team consisted of representatives from different Metro departments with a role in hazard mitigation processes. The Planning Team served as the primary stakeholders throughout the planning process. The general public and external agencies served as secondary stakeholders in the planning process. The Planning Team was responsible for the following tasks:

- ✓ Develop planning goals
- ✓ Prepare timeline
- ✓ Ensure plan meets DMA 2000 requirements
- ✓ Organize and solicit involvement of public and external agencies
- ✓ Analyze existing data and reports
- ✓ Review hazard information and HAZUS loss projection estimates
- ✓ Examine Hazard-Specific Critical Assets Maps
- ✓ Develop Mitigation Action Items
- ✓ Participate in Planning Team meetings and Board of Directors public meeting
- ✓ Share existing resources including maps and data
- ✓ Research strategic documents identifying future construction and maintenance projects
- ✓ Examine known vulnerabilities to critical assets

Table: Planning Team Level of Participation

Name	Research, Data Collection and Plan Writing	Contract Project Management Kick-Off Meeting: May 14, 2019	Planning Team Meeting 1: June 28, 2019	Planning Team Meeting 2: August 28, 2019	Planning Team Meeting 3: October 17, 2019	Planning Team Meeting 4: February 3, 2020	Contract Project Management Meeting: June 11, 2020	Planning Team Comment on First Draft Plan	Distribute Second Draft Plan to General Public and External Agencies	Review Input from Public, and External Agencies of the Second Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approval Pending Adoption	Post Final Draft Plan in Advance of Board of Directors Meeting	Present Final Draft Plan to Board of Directors at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
LA Metro Planning Team															
Albert Escarcega			X												
Aldon Bordenave, Co-Chair	X	X	X	X	X	X	X	X	X	X					
Andrina Dominguez			X	X	X	X		X							
Androush Danielians			X												
Anthony Chua			X												
Aspet Davidian			X	X		X		X							
Bob Spadafora			X	X		X		X							
Brady Branstetter			X			X		X							
Brian Balderrama			X	X											
Chirag Rabari			X												
Chris Limon				X	X	X		X							
Craig Reiter			X	X	X	X		X							
Dana De Vera			X	X	X										
Denise Longley			X	X	X	X		X							

Name	Research, Data Collection and Plan Writing	Contract Project Management Kick-Off Meeting: May 14, 2019	Planning Team Meeting 1: June 28, 2019	Planning Team Meeting 2: August 28, 2019	Planning Team Meeting 3: October 17, 2019	Planning Team Meeting 4: February 3, 2020	Contract Project Management Meeting: June 11, 2020	Planning Team Comment on First Draft Plan	Distribute Second Draft Plan to General Public and External Agencies	Review Input from Public, and External Agencies of the Second Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approval Pending Adoption	Post Final Draft Plan in Advance of Board of Directors Meeting	Present Final Draft Plan to Board of Directors at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
Edna Stanley			X	X	X	X		X							
Errol Taylor			X												
Gelito Ocdamia			X			X		X							
Heather Severin			X												
James D. Andrew				X	X	X									
James Jimenez			X												
James Pachan			X												
Jeanet Owens			X												
Jerry Whelan						X		X							
John Slay				X	X	X		X							
Jonathan Hofert			X												
Karen Parks			X	X		X		X							
Kate Amissah			X												
Mario Del Rosario			X	X											
Marshall Epler				X	X	X		X							
Mike Ornelas					X										

Name	Research, Data Collection and Plan Writing	Contract Project Management Kick-Off Meeting: May 14, 2019	Planning Team Meeting 1: June 28, 2019	Planning Team Meeting 2: August 28, 2019	Planning Team Meeting 3: October 17, 2019	Planning Team Meeting 4: February 3, 2020	Contract Project Management Meeting: June 11, 2020	Planning Team Comment on First Draft Plan	Distribute Second Draft Plan to General Public and External Agencies	Review Input from Public, and External Agencies of the Second Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approval Pending Adoption	Post Final Draft Plan in Advance of Board of Directors Meeting	Present Final Draft Plan to Board of Directors at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
Moniek Pointer, Chair	X	X	X	X	X	X	X	X	X	X					
Nadine Triche-Williams			X	X	X										
Raymond Lopez			X	X		X		X							
Roger Largaespada				X	X										
Romerica Eller				X											
Ron Tien			X												
Stephen Toms			X		X	X		X							
Steve Jaffe			X												
Steve Rank						X		X							
Thinh Dinh			X			X		X							
Ty Henderson				X											
General Technologies and Solutions															
Rawad Hani	X	X	X	X	X	X	X								
Emergency Planning Consultants															
Carolyn Harshman	X	X	X	X	X	X	X				X				
Megan Fritzler	X		X												

Table: Planning Team Timeline

Task	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020-June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022
Research, Data Collection and Plan Writing																										
Research for Hazard, Risk, Vulnerability Assessment, and Capability Assessment	X	X																								
Prepare First Draft Plan	X	X	X	X	X	X	X	X	X	X																
Planning Team Comments on First Draft Plan										X	X	X	X	X	X	X										
Prepare Second Draft Plan											X	X	X	X	X	X	X	X								
Meetings																										
Project Management Kick-Off Meeting	X																									
Planning Team Meeting #1 - HMP Overview, Initial Hazard Briefing, Discuss Plan Goals, & Outreach Strategy		X																								
Planning Team Meeting #2 HAZUS and Discuss Existing Mitigation Action Items				X																						
Planning Team Meeting #3 Develop						X																				

Task	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020-June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022
New Mitigation Action Items																										
Planning Team Meeting #4 Input to First Draft Plan										X																
Project Management Meeting														X												
Outreach Strategy																										
Provide Opportunities for the Public, & Metro Internal / External Partners to Provide Input to the 2nd Draft Plan																	X	X								
Plan Review, Adoption, Approval, and Implementation																										
Submit 3rd Draft Plan to Cal OES																			X							
Work with Cal OES and FEMA on DMA 2000-Mandated Revisions																			X	X						
Receive FEMA Approval Pending Adoption																					X					
Present Final Draft Plan to Metro Board of Directors and Metro Senior Leadership for Adoption																								X		

Task	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020-June 2022	July 2022	August 2022	September 2022	October 2022	November 2022	December 2022
Submit Proof of Adoption to FEMA																										
Receive FEMA Final Approval																										
Incorporate FEMA Final Approval into Final Plan																										

Q&A | ELEMENT A: PLANNING PROCESS | A2a.

Q: Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process? (Requirement §201.6(b)(2))

A: See **Secondary Stakeholders** below.

Q&A | ELEMENT A: PLANNING PROCESS | A2b.

Q: Does the plan identify how the stakeholders were invited to participate in the process? (Requirement §201.6(b)(2))

A: See **Secondary Stakeholders** below.

Secondary Stakeholders

In addition to the Planning Team, the secondary stakeholders also provided information, expertise, and other resources during plan writing phase. The secondary stakeholders included the Metro staff, general public (including riders), and external agencies. All gathered input was incorporated into the Third Draft Plan prior to submittal to Cal OES and FEMA. For a specific accounting of the date, source, information gathered, and use of information during the Plan Writing Phase, please see Attachments: **Secondary Stakeholder Input**.

In advance of the Board of Directors public meeting, Metro staff (via Newsletter), general public (via public noticing) and external agencies (via email invitation) were informed of the Final Draft Plan and encouraged to participate in the public meeting. Any comments gathered were noted in the Planning Team Staff Report and added to the Final Plan.

Q&A | ELEMENT C. MITIGATION STRATEGY | C1a.

Q: Does the plan document each jurisdiction's existing authorities, policies, programs and resources? (Requirement §201.6(c)(3))

A: See **Capability Assessment – Existing Processes and Programs** below.

Capability Assessment – Existing Processes and Programs

Metro will incorporate mitigation planning as an integral component of daily operations. This will be accomplished by the Planning Team working with their respective departments to integrate mitigation strategies into the planning documents and Metro's operational guidelines. In addition to the Capability Assessment below, the Planning Team will strive to identify additional policies, programs, practices, and procedures that could be created or modified to address mitigation activities.

Table: Capability Assessment - Existing Processes and Programs

Resource Type	Resource Name	Ability to Support Mitigation
Personnel	Board Administration	*The Board of Directors guide the agency's priorities, projects and activities, and includes 13 members who represent various areas throughout Los Angeles County. The Board will play an important role in providing continuing support for projects and plans key to implementation of the AHMP.*
	Bus Facilities and Property Maintenance	*Safe and reliable operation of the bus transportation infrastructure and equipment. To continually improve the performance of our assets by keeping all facilities, equipment, structures and utilities in good working order and at maximum efficiency. Including implementing the Mitigation Actions Matrix, BFPM has boots on the ground with ability to observe maintenance issues and changes in hazards.*

Resource Type	Resource Name	Ability to Support Mitigation
	Bus Operations	*The service delivery, including directing the availability and assigning of proper operating and supervisory staff resources to ensure that service objectives are achieved to provide safe, clean, reliable, on-time, courteous service to our customers. Including implementing the Mitigation Actions Matrix, BO has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Community Relations	*Community Relations is committed to transforming communities, building a constituency for transportation in Los Angeles County and leading the conversation with stakeholder groups now and for future generations through public engagement. The department will lead the effort for community outreach as the Second Draft Plan is distributed for input by the public and external agencies during the plan writing phase. Additionally, they will play a critical role is providing updated information and future outreach opportunities during the plan's implementation.*
	Emergency Management	*Emergency Management Department provides leadership and support to our internal and external partners relating to creating, guiding, and maintaining a robust resilience capability in response to and preparation for local and regional disasters. Including implementing the Mitigation Actions Matrix, EM has a unique view of Metro as the gatherers of information on incidents and events impacting the transportation system. This collection wisdom will be instrumental in the implementation meetings and the evaluation process. Additionally, EM is the recipient of grant and other funding opportunities relevant to the Mitigation Actions Matrix.*
	Environmental Compliance & Sustainability	*Environmental Compliance and Sustainability Department (ECSD) provides general support services to LA Metro's Planning, Construction, Operations, and Procurement Business units. The department's three core functions include environmental services; sustainability services (including policy implementation, Environmental Management System, and carbon credits administration); and project management of sustainability related projects/infrastructure. ECS has its eye at all times on the region's environment – the very source of many hazards. They will be instrumental in keeping the Risk Assessment of the AHMP up-to-date and will also be an excellent source of grant and other funding opportunities.*
	Finance & Accounting	*Finance and Accounting will provide the professional management and operational support that ensures the policies, priorities, and programs approved by the Board of Directors are delivered in the most efficient and cost effective manner possible. Their access to grant and other funding opportunities will be invaluable to the implementation process.*
	General Services	*General Services provides facility and administrative services, including building management and maintenance, mail services, travel office and copy services. Including implementing the Mitigation Actions Matrix, GS has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Information Technology	*Provides technical support and protection for Metro's technological systems, including hardware, software, data and devices. IT will assist with implementing the Mitigation Actions Matrix.*
	Maintenance of Way Engineering	*The Maintenance of Way Engineering team is responsible for the day-to-day maintenance of Metro's rail track and equipment, passenger bus and rail stations, and facilities. Including implementing the Mitigation Actions Matrix, MWG has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Program Management	*The Program Management Department is focused on the successful delivery of capital projects, including transit, highway, and regional rail projects. Safety, quality, and on-time/on-budget delivery while mitigating stakeholder's issues are major goals. Including implementing the Mitigation Actions Matrix, PM will play a pivotal role in pulling together the status of Metro's capital projects with updates to*

Resource Type	Resource Name	Ability to Support Mitigation
		the AHMP. Also, they can provide information on grants and other funding opportunities.
	Rail Facilities Maintenance	*Metro Maintenance is responsible for maintaining all elevators, escalators, signs, trains, tracks, traction and power equipment, facilities, stops, and stations. Including implementing the Mitigation Actions Matrix, RFM has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Rail Fleet Services	*Safe and reliable operation of the rail transportation infrastructure and equipment. To continually improve the performance of our assets by keeping all facilities, equipment, structures and utilities in good working order and at maximum efficiency. Including implementing the Mitigation Actions Matrix, RFS has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Rail Operations	*The revenue service delivery for six rail lines and all movements on the rail rights-of-way and the dispatch and control for all train service, maintenance of way and personnel on the rights-of-way. Including implementing the Mitigation Actions Matrix, RO has boots on the ground with ability to observe maintenance issues and changes in hazards.*
	Regional Rail	*The Regional Rail unit provides overall coordination, management, and the programming of funds for Metro's commitment to the Metrolink commuter rail and high-speed rail system in Los Angeles County including Amtrak intercity and long distance trains. Regional Rail is involved with regional and statewide rail providers to coordinate and fund projects throughout Los Angeles County. Including implementing the Mitigation Actions Matrix, RR can play an important role with stakeholder in the region in developing projects that integrate hazard mitigation practices.*
	System Security and Law Enforcement	*To ensure Metro patrons and employees can ride and work safely, without fear, 100% of the time. Leading the transit industry in the development and implementation of innovative security and law enforcement strategies; advancing the use of crime analysis tools, problem-solving methodologies and technology; building and sustaining regional community and law enforcement partnerships. Including implementing the Mitigation Actions Matrix, SSLE has boots on the ground with ability to observe maintenance issues and changes in hazards.*
Plans	*Active Transportation Strategic Plan (2016)*	*The Active Transportation Strategic Plan (Plan) is Metro's county-wide effort to identify strategies to increase walking, bicycling and transit use in Los Angeles County. The Plan's policy and infrastructure recommendations will require collaboration between Metro, local and regional agencies, and other stakeholders to ensure implementation.*
	Metro Climate Action and Adaptation Plan (2019)	*The CAAP is the cornerstone to achieve a more sustainable and resilient Metro and LA County. Metro has worked to embed climate action into systems, assets and operations to create a resilient and forward-thinking Agency prepared for a changing future. This update sets ambitious goals for the near and long term and contributes to broader efforts to ensure Metro's ability to continue providing essential services regardless of future conditions.*
	Comprehensive Annual Financial Report (2018)	*The Comprehensive Annual Financial Report is an audit for Los Angeles Metro fiscal year ending June 30, 2018. State law requires Metro to publish a complete set of audited financial statements within six months of the close of each fiscal year. Metro is required to undergo an annual Single Audit in conformity with the provisions of the Single Audit Act of 1984 and the U.S. Office of Management and Budget Uniform Guidance. Information related to the Single Audit, including the Schedule of Federal and State awards, findings, and recommendations, and auditor's reports on the internal control structure and compliance with applicable laws and regulations are set forth in a separate Single Audit report.*

Q&A | ELEMENT A: PLANNING PROCESS | A4
Q: Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3)) **A:** See **Use of Existing Data** below.

Use of Existing Data

The Planning Team gathered and reviewed existing data and plans during plan writing and specifically noted as "sources". Numerous electronic and hard copy documents were used to support the planning process:

Los Angeles County Metropolitan Transportation Authority (Metro) Website
https://www.metro.net/
Applicable Incorporation: Departments, Ridership Stats.

Active Transportation Strategic Plan (2016)
https://www.metro.net/projects/active-transportation-strategic-plan/
Applicable Incorporation: Population and Demographics, Photos.

Metro Climate Action and Adaptation Plan (2019)
https://media.metro.net/projects_studies/sustainability/images/Climate_Action_Plan.pdf
Applicable Incorporation: Climate Change Chapter, Graphs, Photos.

Comprehensive Annual Financial Report (2018)
https://media.metro.net/about_us/finance/images/fy18_cafr.pdf
Applicable Incorporation: Maps, Photos.

Metro Asset Hazard Maps
Created by General Technologies and Solutions
Applicable Incorporation: Maps of Metro Assets.

Los Angeles County General Plan (2015)
http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf
Applicable Incorporation: Climate Information, Maps.

County of Los Angeles All-Hazards Mitigation Plan (2019)
http://file.lacounty.gov/SDSInter/lac/1062614_AHMPPublicDraft_Oct1.pdf
Applicable Incorporation: Information about hazards in the County contributed to the hazard-specific sections in the Metro Hazard Mitigation Plan.

County of Los Angeles Fire Department
https://fire.lacounty.gov/bobcat-fire-status/
Applicable Incorporation: Information about Wildfire hazards.

State of California Hazard Mitigation Plan (2018)
https://www.caloes.ca.gov/HazardMitigationSite/Documents/0022018%20SHMP_FINAL_ENTIRE%20PLAN.pdf
Applicable Incorporation: Used to identify hazards posing greatest threat to State.

HAZUS Maps and Reports
Created by Emergency Planning Consultants
Applicable Incorporation: Numerous HAZUS maps and reports have been included for Earthquake and Flooding to determine specific risks and impacts to Metro service area.

FEMA "How To" Mitigation Series (386-1 to 386-9)
www.fema.gov/media
Applicable Incorporation: Mitigation Measures Categories and 4-Step Planning Process are quoted in the Executive Summary.

National Flood Insurance Program
www.fema.gov/national-flood-insurance-program
Applicable Incorporation: Used to confirm there are no repetitive loss properties within the Metro service area.

Local Flood Insurance Rate Maps
https://msc.fema.gov/portal/home
Applicable Incorporation: Provided by FEMA and included in Flood Hazard section.

California Department of Forestry and Fire Protection (CAL FIRE)
www.fire.ca.gov
Applicable Incorporation: Wildland fire hazard mapping.

California Department of Conservation
www.conservation.ca.gov/cgs
Applicable Incorporation: Seismic hazards mapping.

U.S. Geological Survey (USGS)
www.usgs.gov
Applicable Incorporation: Earthquake records and statistics.

Using HAZUS for Mitigation Planning (2018)
https://www.fema.gov/media-library-data/1540479624999-ab1eca852448e271f0de82cf2031a01b/Using_Hazus_in_Mitigation_Planning_20180820_Final_508_Compliant.pdf
Applicable Incorporation: HAZUS Information.

California's Fourth Climate Change Assessment: Los Angeles Region Report (2019)
https://www.energy.ca.gov/sites/default/files/2019-07/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles.pdf
Applicable Incorporation: Climate Information.

NOAA National Centers for Environmental Information, Climate at a Glance (2019)
https://www.ncdc.noaa.gov/cag/county/time-series
Applicable Incorporation: Data Image.

Part II: RISK ASSESSMENT

Service Area Profile

Q&A | ELEMENT B3:
Q: Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(b)(3)) **A:** See **Location and the Environment** below.

Location and the Environment

Los Angeles County Metropolitan Transportation Authority (Metro) is one of the country's largest transportation agencies serving nearly 9.6 million people within Los Angeles County – nearly one-third of California's residents.

With approximately 4,760 square miles, Los Angeles County is geographically one of the largest counties in the country. The county stretches along 75 miles of the Pacific coast of Southern California and is bordered to the east by Orange County and San Bernardino County, to the north by Kern County, and to the west by Ventura County.

Metro provides services to the San Fernando Valley, San Gabriel Valley, South Bay/Gateway, and Westside/Central communities. The jurisdictions included in Metro's service area are identified below in Table: Metro Service Area Jurisdictions.

Table: Metro Service Area Jurisdictions
Source: County of Los Angeles General Plan

City of Agoura Hills	City of Glendora	City of Paramount
City of Alhambra	City of Hawaiian Gardens	City of Pasadena
City of Arcadia	City of Hawthorne	City of Pico Rivera
City of Artesia	City of Hermosa Beach	City of Pomona
City of Azusa	City of Hidden Hills	City of Rancho Palos Verdes
City of Baldwin Park	City of Huntington Park	City of Redondo Beach
City of Bell	City of Industry	City of Rolling Hills
City of Bell Gardens	City of Inglewood	City of Rolling Hills Estates
City of Bellflower	City of Irwindale	City of Rosemead
City of Beverly Hills	City of La Canada Flintridge	City of San Dimas
City of Bradbury	City of La Habra Heights	City of San Fernando
City of Burbank	City of La Mirada	City of San Gabriel
City of Calabasas	City of La Puente	City of San Marino
City of Carson	City of La Verne	City of Santa Fe Springs
City of Cerritos	City of Lakewood	City of Santa Monica
City of Claremont	City of Lawndale	City of Sierra Madre
City of Commerce	City of Lomita	City of Signal Hill
City of Compton	City of Long Beach	City of South El Monte
City of Covina	City of Los Angeles	City of South Gate
City of Cudahy	City of Lynwood	City of South Pasadena
City of Culver City	City of Malibu	City of Temple City
City of Diamond Bar	City of Manhattan Beach	City of Torrance

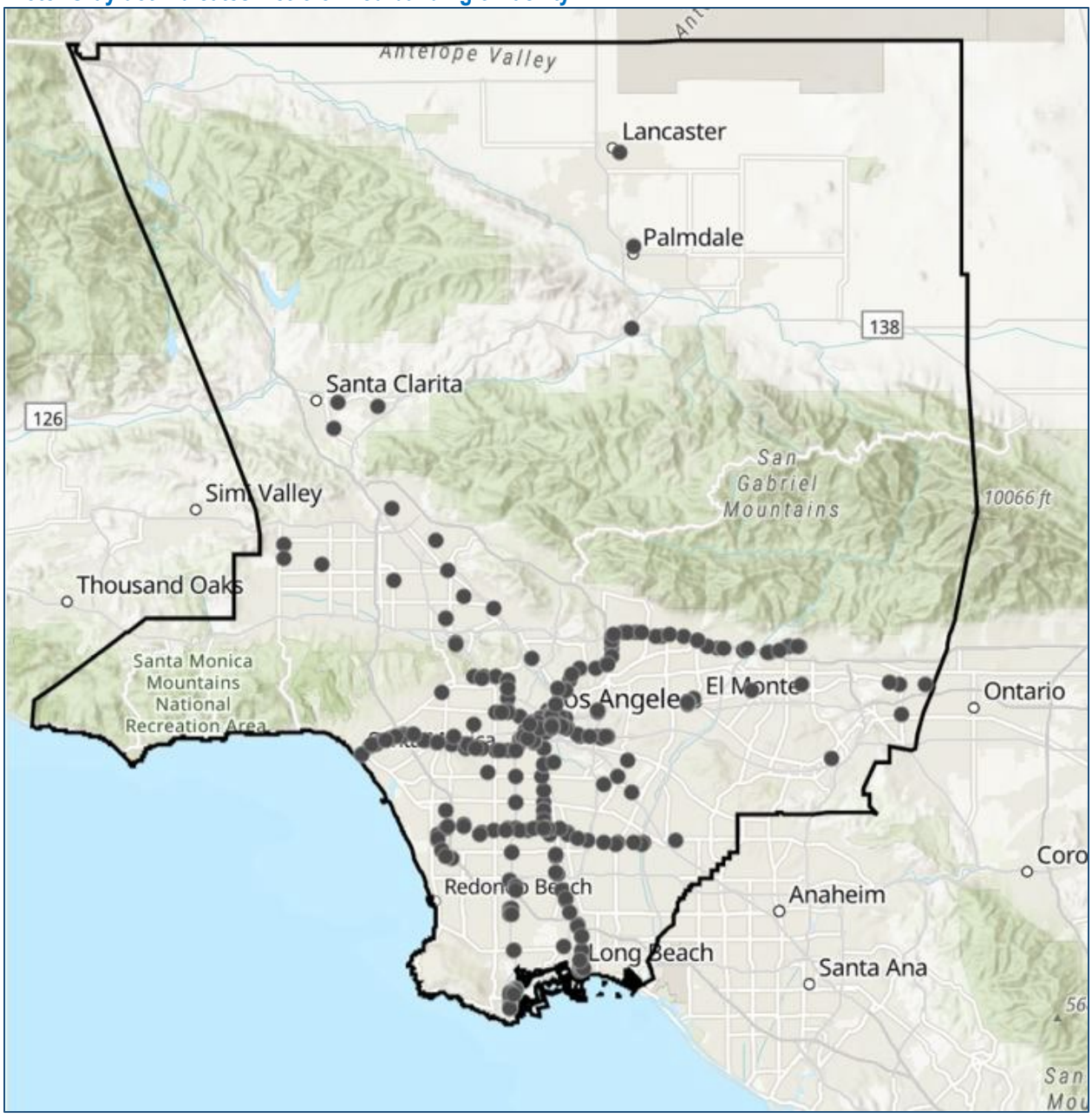
City of Downey City of Duarte City of El Monte City of El Segundo City of Gardena City of Glendale	City of Maywood City of Monrovia City of Montebello City of Monterey Park City of Norwalk City of Palos Verdes Estates	City of Vernon City of Walnut City of West Covina City of West Hollywood City of Westlake Village City of Whittier County of Los Angeles Unincorporated Areas

Metro has locations and assets throughout Los Angeles county as shown on **Map: Metro Critical Assets**.

Photo: Metro Bus in Downtown Los Angeles
Source: Active Transportation Strategic Plan, Volume 1, April 2016

Caption: Metro Bus in Downtown Los Angeles

Map: Metro Critical Assets
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility**



Map: Metro Bus and Rail Overview
(Source: Metro)

History and Ridership

Photo: Manchester Avenue Metro Station
Source: Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018

Caption: Manchester Avenue Metro Station

According to the American Public Transportation Association, Metro operates the third-largest public transportation agency in the United States, proving services to a County population of approximately 10,105,500. Metro employs approximately 9,800 full-time employees making it one of the region's largest employers.

Under contract with Metro, the Los Angeles Sheriff's Department (LASD), Los Angeles Police Department (LAPD), and Long Beach Police Department (LBPD) provides security along the entire Metro bus and rail network in cooperation with Metro's own Transit Police Force.

A brief history of Metro, transportation routes, and ridership statistics are described in the following tables.

Table: Metro Rail and Busways
(Source: Metro)

Metro Rail and Busways					
Rail Line	**Opened**	**Miles**	**Type**	**Stations**	**Construction Cost**
Metro E Line	2012 Extension to Santa Monica, 2016	13.1	Light Rail	19 (including 2 shared)	$2.4 billion
Metro J Line	2009 South Bay and El Monte via Downtown Los Angeles	n/a	Busway	11 n/a	$587 million
Metro G Line	2005 Extension from Canoga Park to Chatsworth, 2012	18	Busway	18 n/a	$484 million
Metro L Line	2003 Eastside Extension, 2009 Azusa Extension, 2016	29.7	Light Rail	27 (including 1 shared)	$2.8 billion
Metro C Line	1995	19.5	Light Rail	14 (including 1 shared)	$718 million
Metro B/D Lines	1993 MacArthur Park, 1993 Wilshire/ Western, 1996	14.0	Subway	16 (including 6 shared)	$4.5 billion

Metro Rail and Busways					
Rail Line	**Opened**	**Miles**	**Type**	**Stations**	**Construction Cost**
	Hollywood, 1999 North Hollywood, 2000				
Metro A Line	1990	21.3	Light Rail	22 (including 3 shared)	$877 million

Table: Ridership Statistics
(Source: Interactive Estimated Ridership Stats, November 2019)

Systemwide (Bus and Rail)					
Day Type	**Estimated Ridership**	**Average Passenger Miles**	**Day Count**	**Total Estimated Ridership**	**Total Passenger Miles**
Weekday	1,155,119	5,472,562	20	23,102,380	109,451,232
Saturday	729,515	3,519,865	5	3,647,575	17,599,324
Sunday	546,401	2,716,229	5	2,732,005	13,581,146
Total	**N/A**	**N/A**	**30**	**29,481,960**	**140,631,702**
All Bus					
Day Type	**Estimated Ridership**	**Average Passenger Miles**	**Day Count**	**Total Estimated Ridership**	**Total Passenger Miles**
Weekday	854,195	3,537,143	20	17,083,900	70,742,860
Saturday	542,270	2,246,503	5	2,711,350	11,232,515
Sunday	393,086	1,682,653	5	1,965,430	8,413,265
Total	**N/A**	**N/A**	**30**	**21,760,680**	**90,388,640**
Directly Operated (Bus)					
Day Type	**Estimated Ridership**	**Average Passenger Miles**	**Day Count**	**Total Estimated Ridership**	**Total Passenger Miles**
Weekday	813,962	3,349,369	20	16,279,240	66,987,380
Saturday	519,388	2,140,010	5	2,596,940	10,700,050
Sunday	376,387	1,603,865	5	1,881,935	8,019,325
Total	**N/A**	**N/A**	**30**	**20,758,115**	**85,706,755**
Rail					
Day Type	**Estimated Ridership**	**Average Passenger Miles**	**Day Count**	**Total Estimated Ridership**	**Total Passenger Miles**
Weekday	300,924	1,935,419	20	6,018,480	38,708,372

Systemwide (Bus and Rail)					
Day Type	Estimated Ridership	Average Passenger Miles	Day Count	Total Estimated Ridership	Total Passenger Miles
Saturday	187,245	1,273,362	5	936,225	6,366,809
Sunday	153,315	1,033,576	5	766,575	5,167,881
Total	**N/A**	**N/A**	**30**	**7,721,280**	**50,243,062**

Climate

Metro's Climate Action and Adaptation Plan (2019) is the cornerstone to achieve a more sustainable and resilient Metro and Los Angeles County. Metro has worked to embed climate action into systems, assets and operations to create a resilient and forward-thinking Agency prepared for a changing future. The CAAP sets ambitious goals for the near and long term and contributes to broader efforts to ensure Metro's ability to continue providing essential services regardless of future conditions.

Much of Los Angeles County is part of a biodiversity hotspot, designating the area as unique with a fragile ecosystem of endemic plants and animals. According to National Geographic, biodiversity hotspots make up less than 3 percent of Earth's land surface and refer to regions that are both rich with life and at high risk for destruction.

As discussed in the Los Angeles County General Plan 2015, the region is a land of beaches, valleys, mountains, and deserts. Overall, the climate can be characterized as "Mediterranean," with hot, dry summers and mild, wet winters. The diversity of the topography results in localized climate zones that are roughly divided by the Transverse Ranges (Santa Monica Mountains and San Gabriel Mountains). The climate zones are closely tied to geologic landforms and vary based on elevation changes and distance from the ocean. These climate zones can be grouped into three broad categories:

Coastal Plain: The coastal plain includes the beaches, valleys, and canyons that occupy the Los Angeles Basin and terminate at the Transverse Ranges. During the dry season, the determining factor in coastal plain weather is the proximity to the Pacific Ocean and the resultant marine layer. The marine layer acts as a buffer, which is evidenced by relatively cool and constant temperatures, low clouds, fog, and haze. The marine layer settles over the Basin during the evening and early morning before being burned off by sunshine midday. Due to the dominance and stability of the high-pressure area in the Basin, precipitation is rare between May and November.

Mountain: Climates in the mountains are characterized by lower average temperatures and heavier rainfall than in the coastal plain. The Transverse Ranges are further removed from the climatic influences of marine wind patterns and experience the additional influence of altitude.

High Desert: The high desert includes the Antelope Valley, which is the westernmost portion of the Mojave Desert. The high desert is located more than 50 miles inland and is removed from marine influences and experiences a more extreme type of climate. The Transverse Ranges act as a barrier to rain bearing clouds moving inland. In addition, the

Antelope Valley is home to several wildlife and wildflower sanctuaries that thrive in the often-inhospitable climate found in the high desert.

Risk Assessment

What is a Risk Assessment?

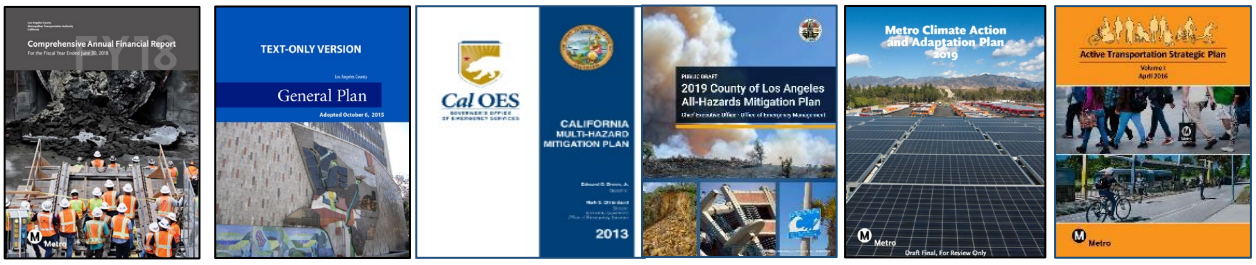
Conducting a risk assessment can provide information regarding: the location of hazards; the value of existing land and property in hazard locations; and an analysis of risk to life, property, and the environment that may result from natural hazard events. Specifically, the five levels of a risk assessment are as follows: Hazard Identification, Profiling Hazard Events, Vulnerability Assessment/Inventory of Existing Assets, Risk Analysis, and Assessing Vulnerability/Analyzing Development Trends.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.
Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Hazard Identification** below.
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1b.
Q: Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area? (Requirement §201.6(c)(2)(i)) **A:** See **Hazard identification** below.

1) Hazard Identification

This section is the description of the geographic extent, potential intensity, and the probability of occurrence of a given hazard. Maps are used in this plan to display hazard identification data. ***Metro utilized the categorization of hazards as identified in California's State Hazard Mitigation Plan, including Earthquakes, Floods, Levee Failures, Wildfires, Landslides and Earth Movements, Tsunami, Climate-Related Hazards, Volcanoes, and Other Hazards***.

Next, the Planning Team reviewed existing documents to determine which of these hazards posed the most significant threat to Metro and its ability to deliver services. In other words, which hazard would likely result in a local declaration of emergency.



The geographic extent of each of the identified hazards was identified by the Planning Team utilizing maps and data contained in the Los Angeles County General Plan 2015. In addition, numerous internet resources and the County of Los Angeles All-Hazards Mitigation Plan (2019) served as valuable resources. Utilizing the Calculated Priority Risk Index (CPRI) ranking technique, the Planning Team concluded the hazards posing a significant threat against Metro including Earthquake, Flood, Wildfire, Landslide, Windstorm, Tsunami, Climate Change (with sub-hazards Drought, Sea-Level Rise, and Extreme Heat), and Epidemic / Pandemic / Vector-Borne Diseases.

The hazard ranking system is described in **Table: Calculated Priority Risk Index**, while the actual ranking is shown in **Table: Calculated Priority Risk Index Ranking for Metro.**

Table: Calculated Priority Risk Index
(Source: Federal Emergency Management Agency)

CPRI Category	Degree of Risk			Assigned Weighting Factor
	Level ID	Description	Index Value	
Probability	Unlikely	Extremely rare with no documented history of occurrences or events. Annual probability of less than 1 in 1,000 years.	1	45%
	Possibly	Rare occurrences. Annual probability of between 1 in 100 years and 1 in 1,000 years.	2	
	Likely	Occasional occurrences with at least 2 or more documented historic events. Annual probability of between 1 in 10 years and 1 in 100 years.	3	
	Highly Likely	Frequent events with a well-documented history of occurrence. Annual probability of greater than 1 every year.	4	
Magnitude/ Severity	Negligible	Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure. Injuries or illnesses are treatable with first aid and there are no deaths. Negligible loss of quality of life. Shut down of critical public facilities for less than 24 hours.	1	30%
	Limited	Slight property damage (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries or illnesses do not result in permanent disability, and there are no deaths. Moderate loss of quality of life. Shut down of critical public facilities for more than 1 day and less than 1 week.	2	
	Critical	Moderate property damage (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and at least 1 death. Shut down of critical public facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	Severe property damage (greater than 50% of critical and non-critical facilities and infrastructure). Injuries and illnesses result in permanent disability and multiple deaths. Shut down of critical public facilities for more than 1 month.	4	
Warning Time	> 24 hours	Population will receive greater than 24 hours of warning.	1	15%
	12–24 hours	Population will receive between 12-24 hours of warning.	2	
	6-12 hours	Population will receive between 6-12 hours of warning.	3	
	< 6 hours	Population will receive less than 6 hours of warning.	4	
Duration	< 6 hours	Disaster event will last less than 6 hours	1	10%
	< 24 hours	Disaster event will last less than 6-24 hours	2	
	< 1 week	Disaster event will last between 24 hours and 1 week.	3	
	> 1 week	Disaster event will last more than 1 week	4	

Table: Calculated Priority Risk Index Ranking for Metro Service Area
(Source: Emergency Planning Consultants)

Hazard	Probability	Weighted 45% (x.45)	Magnitude Severity	Weighted 30% (x.3)	Warning Time	Weighted 15% (x.15)	Duration	Weighted 10% (x.1)	CPRI Total
Earthquake – San Andreas M7.8	3	1.35	3	0.9	4	0.6	1	0.1	**2.95**
Earthquake – Newport Inglewood 7.2	2	0.9	4	1.2	4	0.6	1	0.1	**2.80**
Wildfire	3	1.35	2	0.6	3	0.45	2	0.2	**2.60**
Earthquake – Sierra Madre 7.2	2	0.9	3	0.9	4	0.6	1	0.1	**2.50**
Windstorm	4	1.8	1	0.3	1	0.15	2	0.2	**2.45**
Flood	3	1.35	2	0.6	2	0.3	2	0.2	**2.45**
Tsunami	2	0.9	2	0.6	3	0.45	3	0.3	**2.25**
Landslide	2	0.9	2	0.6	4	0.6	1	0.1	**2.20**
Climate Change	2	0.9	2	0.6	1	0.15	4	0.4	**2.05**
Drought	2	0.9	2	0.6	1	0.15	4	0.4	**2.05**
Sea-Level Rise	2	0.9	2	0.6	1	0.15	4	0.4	**2.05**
Extreme Heat	2	0.9	2	0.6	1	0.15	4	0.4	**2.05**
Epidemic / Pandemic / Vector-Borne Diseases	2	0.9	2	0.6	1	0.15	4	0.4	**2.05**

2) Profiling Hazard Events

This process describes the causes and characteristics of each hazard and what part of Metro facilities, infrastructure, and environment may be vulnerable to each specific hazard. A profile of each hazard discussed in this plan is provided in the Metro Specific Hazard Analysis. **Table: Vulnerability: Location, Extent, and Probability for Metro Service Area** indicates a generalized perspective of the community's vulnerability of the various hazards according to extent (or degree), location, and probability.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1c.

Q: Does the plan include a description of the **location** for all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Table: Vulnerability: Location, Extent, and Probability for Metro Service Area** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1d.

Q: Does the plan include a description of the **extent** for all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Table: Vulnerability: Location, Extent, and Probability for Metro Service Area** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Table: Vulnerability: Location, Extent, and Probability for Metro Service Area** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2b.

Q: Does the plan include information on the **probability** of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Table: Vulnerability: Location, Extent, and Probability for Metro Service Area** below.

Table: Vulnerability: Location, Extent, and Probability for Metro Service Area

Hazard	Location (Where)	Extent (How Big an Event)	Probability (How Often) *	Previous Occurrences
Earthquake	Entire Service Area	The Southern California Earthquake Center (SCEC) in 2007 concluded that there is a 99.7 % probability that an earthquake of M6.7 or greater will hit California within 30 years. Earthquake would most likely originate from the San Andreas fault.	Likely	2014 – La Habra Earthquake
Wildfire	Metro assets located closest to wildland interface; northern and eastern portions of service area.	Very High Fire Hazard Severity Zone ratings.	Likely	2018 – Woolsey Fire
Landslide	Metro assets located along hillsides and sloped terrain.	Earthquake-induced and rain-induced landslide events possibly impacting dozens of structures.	Likely	2019 – Pacific Coast Highway near Ventura
Flood	Entire Service Area, low lying areas with poor drainage	Urban and localized flooding from severe weather (100-yr floodplain).	Likely	2017 – severe winter storms
Windstorm	Entire Service Area	35-50 mile per hour or greater wind gusts.	Likely	2015-2019 - El Nino
Tsunami	Coastal Regions of Service Area	Maximum Run-Up 12 meters	Possible	2011 – Redondo Beach
Climate Change	Entire Project Area	Impacts would range from mild to severe throughout the project area.	Likely	Statewide Drought 2011-2015
Drought	Entire Project Area	Impacts would range from mild to severe throughout the project area.	Likely	Statewide Drought 2011-2015
Sea-Level Rise	Coastal Regions of Service Area	Impacts would range from mild to severe throughout the project area.	Likely	No History
Extreme Heat	Entire Project Area	Impacts would range from mild to severe throughout the project area.	Likely	Los Angeles County Heat Event September 2021
Epidemic / Pandemic / Vector-Borne Diseases	Entire Project Area	Impacts would range from mild to severe throughout the project area.	Possible	COVID 19 2019-present
* Probability is defined as: Unlikely = 1:1,000 years, Possibly = 1:100-1:1,000 years, Likely = 1:10-1:100 years, Highly Likely = 1:1 year				
[1] Uniform California Earthquake Rupture Forecast				

HAZUS-MH

The HAZUS maps in the Mitigation Plan were generated by Emergency Planning Consultants using FEMA's Hazards United States – Multi Hazard (HAZUS-MH) software program. Please see **Attachments – HAZUS** for complete reports. Once the location and size of a hypothetical earthquake are identified, HAZUS-MH estimates the intensity of the ground shaking, the number of buildings damaged, the number of casualties, the amount of damage to transportation systems and utilities, the number of people displaced from their homes, and the estimated cost of repair and clean up. It's important to note that the "project area" is based on Census Tracts not jurisdictional boundaries.

As per FEMA's HAZUS Guidebook, HAZUS is a GIS-based software that can be used to estimate potential damage, economic loss, and social impacts from earthquake, flood, tsunami and hurricane wind hazards. The HAZUS software includes nationwide general GIS datasets, and a model for the four natural disasters below. The model results can support the risk assessment piece of mitigation planning.

Graphic: Model Results to Support Risk Assessment for Mitigation Planning
(Source: Using HAZUS for Mitigation Planning, Federal Emergency Management Agency, 2018)

Earthquake model 	Estimates damages and losses to buildings, essential facilities, transportation, and utility lifelines from a single scenario or probabilistic earthquake analysis. There are also tools that allow the user to integrate earthquake hazard data generated outside of Hazus into the earthquake model. This model estimates debris generation, shelter requirements, casualties, and fire following an earthquake disaster.
Flood model 	Generates flood hazard data using nationwide hydrological datasets. There are also tools that allow the user to integrate flood hazard data generated outside of Hazus software into the flood model. This model estimates the expected levels of damage to infrastructure and buildings. Debris generation and shelter requirements, as well as agricultural losses, can be calculated with this model.
Tsunami model 	Can produce analyses that have several pre-tsunami and/or post-tsunami applications. Use of the methodology will generate an estimate of the consequences to a county or region of a "scenario tsunami," i.e., a tsunami with a specified inundation depth, velocity, and location. The resulting "loss estimate" generally will describe the scale and extent of damage and disruption that may result from the scenario tsunami.
Hurricane wind model 	Can create the wind hazard data from a historical or real-time event, probabilistic event, or from a user-defined scenario. Estimates of potential damage and economic loss to buildings can then be calculated. The storm surge analysis combines the wind and coastal flood model to simulate storm surge for historical, and manual hurricanes. The model combines the wind and flood losses.

HAZUS is packaged with datasets that include building inventories and infrastructure for the entire United States. Because HAZUS is currently built on GIS technology, the inventory and

infrastructure datasets can be mapped and intersected with the hazard information created from the four models.

Following the intersection, HAZUS determines the effects of wind, ground shaking, and water depths on buildings and infrastructure to calculate losses and damages. The outputs and estimates can be used in hazard mitigation planning, emergency response, and planning for recovery and reconstruction.

Losses estimated in HAZUS are based on the accuracy of input data. Basic analysis can be developed using the default data and parameter data provided within HAZUS. Users can conduct more advanced analysis using more accurate data that is specific to the region, hazard, population, etc. User-supplied data improves the accuracy of inventories and/or parameters.

Advanced-level analyses may also incorporate data from third-party studies. The user must determine the appropriate level of analysis to meet the user's needs and resources.
HAZUS analysis can be performed at three different levels:

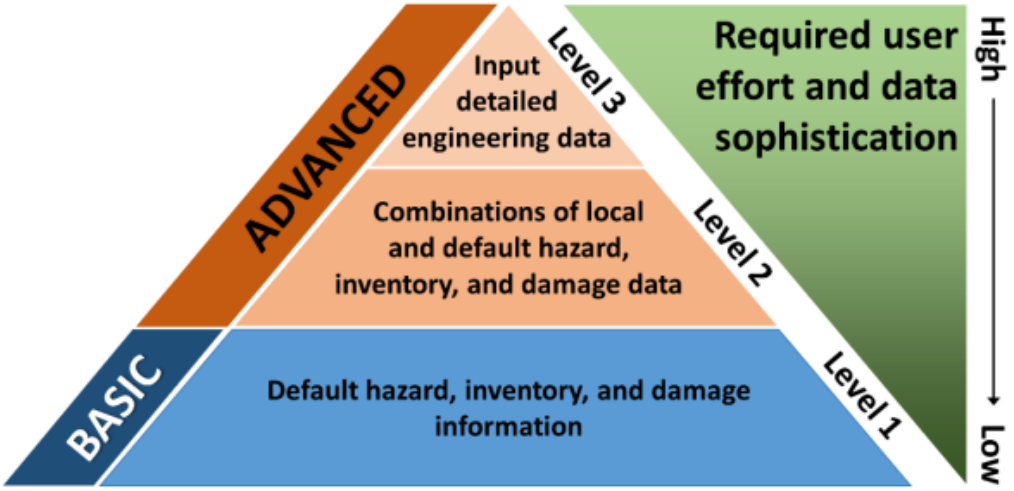
- A Level 1 basic analysis can be performed simply using the default data provided. This level of analysis is very coarse, and because the results will be subject to a much higher level of uncertainty, this should serve primarily as a baseline for further study. The user will still be able to produce basic maps and results. Limited additional data will be required to complete the flood analysis. Site specific input data produces more accuracy in vulnerability identification and loss estimation amounts. If the data is available, it is highly recommended that a user integrate site specific data to reduce uncertainty associated with the results of default data. Using a user defined depth grid, in the flood model, against default state data is classified as a level 1 analysis and is the recommendation of HAZUS Program.

- A Level 2 advanced analysis increases the accuracy and precision of an analysis by incorporating user-supplied data relevant to a given hazard. While the data included with the HAZUS software can be utilized to run a basic level one analysis, level two inputs are supplied by local sources and contain a higher level of detail. This can include datasets that model the hazards in more detail, or datasets that increase the accuracy of the inventory information. Incorporating more detailed data will improve the quality of the results. Level 2 is broadly defined as the incorporation of user-defined hazard and updated general building stock (GBS) or site-specific data. *Level 2 HAZUS maps and reports were prepared by Emergency Planning Consultants for the Mitigation Plan.*

- A Level 3 advanced analysis achieves the highest degree of precision and involves modifying or substituting the model parameters and/or equations, relevant to a given hazard. Users can modify inputs depending on the time and resources available. Keeping track of the data used is suggested so that any relationships between input and results is documented. It is usually done by advanced users experienced with both the hazard and the HAZUS software.

FEMA's Natural Hazard Risk Assessment Program (NHRAP) encourages users to conduct Level 2 or 3 analyses to improve the accuracy of results and recommends the use of user defined data (e.g., depth grids for all flood analysis) for mitigation planning.

Graphic: HAZUS Analysis Levels
(Source: Using HAZUS for Mitigation Planning, Federal Emergency Management Agency, 2018)



HAZUS creates credible estimates for losses and damages; datasets created on the local level typically provide greater detail than the datasets that are packaged with HAZUS (Level 1). Incorporating local datasets into the analysis will improve the results.

HAZUS Outputs

The user plays a major role in selecting the scope and nature of the output of a HAZUS analysis. A variety of maps can be generated for visualizing the extent of the losses. Numerical results may be examined at the level of the census block or tract or may be aggregated by county or region. There are three main categories of HAZUS outputs: direct physical damage, induced damage, and direct losses. Direct physical damage includes general building stock (GBS), essential facilities, high potential loss facilities, transportation systems, utility systems, and user defined facilities. Induced damage includes building debris, tree debris generation and fire following disaster occurrence. Direct losses include losses for buildings, contents, inventory, income, crop damage, vehicle loss, injuries, casualties, sheltering needs and displaced households.

3) Vulnerability Assessment/Inventory of Existing Assets

A Vulnerability Assessment in its simplest form is a simultaneous look at the geographical location of hazards and an inventory of the underlying land uses (populations, structures, etc.). Facilities that provide critical and essential services following a major emergency are of particular concern because these locations house staff and equipment necessary to provide important public safety, emergency response, and/or disaster recovery functions.

Critical Facilities

FEMA separates critical buildings and facilities into the five categories shown below based on their loss potential. All of the following elements are considered critical facilities:

> **Essential Facilities** are essential to the health and welfare of the whole population and are especially important following hazard events. Essential facilities include hospitals and

other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.

Transportation Systems include airways – airports, heliports; highways – bridges, tunnels, roadbeds, overpasses, transfer centers; railways – trackage, tunnels, bridges, rail yards, depots; and waterways – canals, locks, seaports, ferries, harbors, drydocks, piers.

Lifeline Utility Systems such as potable water, wastewater, oil, natural gas, electric power and communication systems.

High Potential Loss Facilities are facilities that would have a high loss associated with them, such as nuclear power plants, dams, and military installations.

Hazardous Material Facilities include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

Table: Critical Facilities Vulnerable to Hazards below illustrates the hazards with potential to impact critical facilities owned by or providing services to Metro.

Table: Critical Facilities Vulnerable to Hazards
(Source: General Technologies and Solutions and Emergency Planning Consultants)

			Hazards											
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
1	TPSS	Lorena 114 North Lorena Street, Los Angeles	X					X	X	X	X		X
2	TPSS	Soto 2310 East 1st Street, Los Angeles	X					X	X	X	X		X
3	TPSS	Union 401 Bauchet Street, Los Angeles	X					X	X	X	X		X
4	TPSS	Division 21 (Baker) 1802 Baker Street, Los Angeles	X		X			X	X	X	X		X
5	TPSS	98 East Green Street 98 East Green Street, Pasadena	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
6	TPSS	Division 24 (Monrovia) 1600 South California Avenue, Monrovia	X					X	X	X	X		X
7	TPSS	Arizona 322 Arizona Avenue, Los Angeles	X					X	X	X	X		X
8	TPSS	Mariachi Plaza 1831 East 1st Street, Los Angeles	X					X	X	X	X		X
9	TPSS	French 3541 Pasadena Avenue, Los Angeles	X					X	X	X	X		X
10	TPSS	Monterrey 300 Monterey Road, South Pasadena	X					X	X	X	X		X
11	TPSS	Glenarm 57 East State Street, Pasadena	X					X	X	X	X		X
12	TPSS	Corson 309 North Michigan Avenue, Pasadena	X					X	X	X	X		X
13	TPSS	Titley 3055 East Walnut Street, Pasadena	X					X	X	X	X		X
14	TPSS	Baldwin 500 Colorado Street, Arcadia	X					X	X	X	X		X
15	TPSS	Los Robles 1405 Los Robles Avenue, Monrovia	X					X	X	X	X		X
16	TPSS	Irwindale 15996 Avenuenida Padilla, Irwindale	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
17	TPSS	Soldano 825 North Dalton Avenue, Azusa	X					X	X	X	X		X
18	TPSS	Atlantic 5100 Pomona Boulevard, East Los Angeles	X					X	X	X	X		X
19	TPSS	Sunol 4025 East 3rd Street, Los Angeles	X		X			X	X	X	X		X
20	TPSS	Center Street 1302 1/2 East 1st Street, Los Angeles	X					X	X	X	X		X
21	TPSS	Baker 1802 Baker Street, Los Angeles	X					X	X	X	X		X
22	TPSS	Avenue 50 4970 Marmion Way, Los Angeles	X	X				X	X	X	X		X
23	TPSS	Fairview 715 Fairview Avenue, South Pasadena	X					X	X	X	X		X
24	TPSS	Walnut 167 East Walnut Street, Pasadena	X					X	X	X	X		X
25	TPSS	Craig 2152 East Maple Street, Pasadena	X					X	X	X	X		X
26	TPSS	Michilinda 3865 Arboleda Street, Pasadena	X					X	X	X	X		X
27	TPSS	Joseph 23 East St. Joseph Street, Arcadia	X					X	X	X	X		X
28	TPSS	Business Center 1846 Flower Avenue, Duarte	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
29	TPSS	Virginia 841 West 6th Street, Azusa	X					X	X	X	X		X
30	TPSS	Citrus 902 North Palm Drive, Azusa	X					X	X	X	X		X
31	TPSS	Division 13 Yard/Stewart 1805 Stewart Street, Santa Monica	X					X	X	X	X		X
32	TPSS	Pico 1234 South Flower Street, Los Angeles	X					X	X	X	X		X
33	TPSS	18th St Junction 421 West 18th Street, Los Angeles	X					X	X	X	X		X
34	TPSS	TPSS03 Normandie 1401 Exposition Boulevard, Los Angeles	X			X		X	X	X	X		X
35	TPSS	TPSS 05 9th Ave 2827 Exposition Place, Los Angeles	X			X		X	X	X	X		X
36	TPSS	TPSS 07 Clyde 5614 West Jefferson Boulevard, Los Angeles	X					X	X	X	X		X
37	TPSS	Claring 10100 National Boulevard, Los Angeles	X		X			X	X	X	X		X
38	TPSS	Sepulveda 11297 Exposition Boulevard, Los Angeles	X					X	X	X	X		X
39	TPSS	Cloverfield 2202 Olympic Boulevard, Santa Monica	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
40	TPSS	5th Street 402 Colorado Avenue, Santa Monica	X					X	X	X	X		X
41	TPSS	TPS02 Flower 3584 South Figueroa Street, Los Angeles	X					X	X	X	X		X
42	TPSS	TPS04 Van Ness 1865 West Rodeo Road, Los Angeles	X					X	X	X	X		X
43	TPSS	TPS06 Farmdale 4601 Exposition Boulevard, Los Angeles	X			X		X	X	X	X		X
44	TPSS	National 8808 West Washington Boulevard, Culver City	X					X	X	X	X		X
45	TPSS	Overland 11620 Northvale Road, Los Angeles	X			X		X	X	X	X		X
46	TPSS	Barrington 11631 Exposition Boulevard, Los Angeles	X					X	X	X	X		X
47	TPSS	17th Street 1726 Colorado Avenue, Santa Monica	X					X	X	X	X		X
48	TPSS	Division 11 Carson Yard 2083 Santa Fe Avenue, Long Beach	X			X		X	X	X	X		X
49	TPSS	Pico 1234 South Flower Street, Los Angeles	X					X	X	X	X		X
50	TPSS	18th Street Junction 421 West 18th Street, Los Angeles	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
51	TPSS	Washington 1945 Long Beach Avenue, Los Angeles	X					X	X	X	X		X
52	TPSS	Slauson 5865 Randolph Street, Huntington Park	X					X	X	X	X		X
53	TPSS	Firestone 7501 Graham Avenue, Los Angeles	X					X	X	X	X		X
54	TPSS	Imperial 11650 Willowbrook Avenue, Los Angeles	X					X	X	X	X		X
55	TPSS	Compton 507 North Willowbrook Avenue, Compton	X			X		X	X	X	X		X
56	TPSS	Dominguez 18919 South Santa Fe Avenue, Compton	X			X		X	X	X	X		X
57	TPSS	Wardlow 3376 Pacific Place, Long Beach	X					X	X	X	X		X
58	TPSS	PCH 333 East Esther Street, Long Beach	X					X	X	X	X		X
59	TPSS	1st Street 150 Elm Avenue, Long Beach	X					X	X	X	X		X
60	TPSS	San Pedro 1917 Stanford Avenue, Los Angeles	X					X	X	X	X		X
61	TPSS	Vernon 4415 Long Beach Avenue, Los Angeles	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
62	TPSS	Florence 7501 Graham Avenue, Los Angeles	X					X	X	X	X		X
63	TPSS	103rd 1681 East 108th Street, Los Angeles	X					X	X	X	X		X
64	TPSS	Piru 13504 Willowbrook Avenue, Los Angeles	X					X	X	X	X		X
65	TPSS	Artesia 1810 South Acacia Avenue, Compton	X					X	X	X	X		X
66	TPSS	Del Amo 20340 South Santa Fe Avenue, Compton	X			X		X	X	X	X		X
67	TPSS	Willow 2750 West American Avenue, Long Beach	X			X		X	X	X	X		X
68	TPSS	Anaheim 906 Pacific Avenue, Long Beach	X					X	X	X	X		X
69	TPSS	Hawthorne/Division 22 14724 Aviation Boulevard, Hawthorne	X					X	X	X	X		X
70	TPSS	El Segundo 151 North Nash Street, El Segundo	X					X	X	X	X		X
71	TPSS	Hawthorne 11230 Acacia Avenue, Inglewood	X					X	X	X	X		X
72	TPSS	Western 11725 South Manhattan Place, Los Angeles	X		X			X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
73	TPSS	105110 139 West 117th Street, Los Angeles	X					X	X	X	X		X
74	TPSS	Imperial 11650 Willowbrook Avenue, Los Angeles	X					X	X	X	X		X
75	TPSS	Long Beach 11500 Long Beach Boulevard, Lynwood	X					X	X	X	X		X
76	TPSS	Wright 11750 Wright Road, Lynwood	X			X		X	X	X	X		X
77	TPSS	Lakewood 12939 Lakewood Boulevard, Downey	X					X	X	X	X		X
78	TPSS	Norwalk 13026 Flatbush, Norwalk	X			X		X	X	X	X		X
79	TPSS	Douglas 700 South Douglas Street, El Segundo	X					X	X	X	X		X
80	TPSS	Aviation 5380 West Imperial Highway, Los Angeles	X					X	X	X	X		X
81	TPSS	Crenshaw 3301 West 120th Street, Hawthorne	X					X	X	X	X		X
82	TPSS	Vermont 11530 New Hampshire Avenue, Los Angeles	X		X			X	X	X	X		X
83	TPSS	Central 11700 Belhaven Avenue, Los Angeles	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
84	TPSS	Santa Fe 4160 Fernwood Avenue, Lynwood	X			X		X	X	X	X		X
85	TPSS	Marsh 2901 Fernwood Avenue, Lynwood	X					X	X	X	X		X
86	TPSS	Paramount 6170 Florence Avenue, South Gate	X			X		X	X	X	X		X
87	TPSS	Bellflower 9733 Angell, Downey	X			X		X	X	X	X		X
88	TPSS	Division 20 Yard 300 South Santa Fe Avenue, Los Angeles	X					X	X	X	X		X
89	TPSS	Union 800 Alameda Street, Los Angeles	X					X	X	X	X		X
90	TPSS	7th & Metro 660 South Figueroa Street, Los Angeles	X					X	X	X	X		X
91	TPSS	Wilshire/Vermont 3191 Wilshire Boulevard, Los Angeles	X					X	X	X	X		X
92	TPSS	Vermont/Sunset 1500 North Vermont Avenue, Los Angeles	X					X	X	X	X		X
93	TPSS	Hollywood/Vine 6250 Hollywood Boulevard, Los Angeles	X					X	X	X	X		X
94	TPSS	Universal 3881 Lankershim Boulevard, North Hollywood	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
95	TPSS	North Hollywood 5420 Lankershim Boulevard, North Hollywood	X					X	X	X	X		X
96	TPSS	Civic Center 100 North Hill Street, Los Angeles	X					X	X	X	X		X
97	TPSS	Pershing Square 400 South Hill Street, Los Angeles	X					X	X	X	X		X
98	TPSS	Wilshire/Normandie 3510 Wilshire Boulevard, Los Angeles	X		X			X	X	X	X		X
99	TPSS	Vermont/Santa Monica 1015 North Vermont Avenue, Los Angeles	X					X	X	X	X		X
100	Administrative Office (EOC)	Main Office (99) 1 Gateway Plaza, Los Angeles	X					X	X	X	X		X
101	Control Center	Rail Operations Control (60) 2000 East Imperial Highway, Los Angeles	X					X	X	X	X		X
102	Maintenance Facility	CMF Central Maintenance Facility (30) 470 Bauchet Street, Los Angeles	X					X	X	X	X		X
103	Bus Division	Downtown Los Angeles Division 1 1130 East 6th Street, Los Angeles	X					X	X	X	X		X
104	Bus Division	Downtown Los Angeles Division 2 720 East 15th Street, Los Angeles	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
105	Bus Division	Cypress Park Division 3 630 West Avenue 28, Los Angeles	X					X	X	X	X		X
106	Bus Division	Arthur Winston Division 5 5425 Van Ness Avenue, Los Angeles	X			X		X	X	X	X		X
107	Bus Division	West Hollywood Division 7 8800 Santa Monica Boulevard, West Hollywood	X					X	X	X	X		X
108	Bus Division	Chatsworth Division 8 9201 Canoga Avenue, Chatsworth	X					X	X	X	X		X
109	Bus Division	El Monte Division 9 3449 Santa Anita Avenue, El Monte	X					X	X	X	X		X
110	Bus Division	Los Angeles Division 10 742 North Mission Road, Los Angeles	X					X	X	X	X		X
111	Rail Division	Metro A Line Division 11 4350 East 208th Street, Long Beach	X			X		X	X	X	X		X
112	Bus Division	Downtown Los Angeles 13 920 North Vignes Street, Los Angeles	X					X	X	X	X		X
113	Rail Division	Metro E Line Division 14 1955 South Centinela Avenue, Santa Monica	X					X	X	X	X		X
114	Bus Division	Sun Valley Division 15 11900 Branford Street, Los Angeles	X					X	X	X	X		X
115	Bus Division	South Bay Division 18 450 West Griffith Street, Carson	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
116	Rail Division	Metro B/D Line Division 20 320 South Santa Fe Avenue, Los Angeles	X					X	X	X	X		X
117	Rail Division	Metro L Line Division 21 (Elysian Park) 1800 Baker Street, Los Angeles	X					X	X	X	X		X
118	Rail Division	Metro C Line Division 22 14724 Aviation Boulevard, Lawndale	X					X	X	X	X		X
119	Rail Division	Metro L Line Division 24 (Monrovia) 1600 South California Avenue, Monrovia	X					X	X	X	X		X
120	Maintenance Facility	Division 4 Non-Revenue Vehicles 7878 Telegraph Road, Downey	X			X		X	X	X	X		X
121	Bus Terminal	Maple Avenue Terminal 632 Maple Avenue, Los Angeles	X					X	X	X	X		X
122	Bus Terminal	El Monte Terminal 3501 Santa Anita Avenue, El Monte	X					X	X	X	X		X
123	Bus Stop	West Los Angeles Transit Center 5702 Apple Street, Los Angeles	X					X	X	X	X		X
124	Bus Terminal	LAX City Bus Terminal 6111 West 96th Street, Los Angeles	X					X	X	X	X		X
125	Bus Terminal	Terminal 28 111 West 18th Street, Los Angeles	X					X	X	X	X		X
126	Bus Terminal	Terminal 31: Center/Jackson Terminal 410 Center Street, Los Angeles	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
127	Maintenance Facility	Vernon Yards (34) 4462 Pacific Boulevard, Vernon	X					X	X	X	X		X
128	Bus Terminal	Pico Rimpau Bus Terminal 4646 Pico Boulevard, Los Angeles	X			X		X	X	X	X		X
129	Maintenance Facility	Heavy Rail Maintenance of Way Facility (64) 590 South Santa Fe Avenue, Los Angeles	X					X	X	X	X		X
130	Administrative Office	Operations & Training (One Santa Fe) (63) 100 South Santa Fe Avenue, Los Angeles	X					X	X	X	X		X
131	Maintenance Facility	Light Rail Maintenance of Way Facility (66) 1680 East Imperial Highway, Willowbrook	X					X	X	X	X		X
132	Administrative Office	Crenshaw Light Rail 3695-3699 Crenshaw Boulevard, Los Angeles	X			X		X	X	X	X		X
133	Administrative Office	WSRC Westside Subway and Regional Connector 777 South Figueroa Street, Los Angeles	X		X			X	X	X	X		X
134	Rail Station	A Line 801/Stop # 80101 Downtown Long Beach Station	X					X	X	X	X		X
135	Rail Station	A Line 801 Stop # 80102 Pacific Avenue Station	X					X	X	X	X		X
136	Rail Station	A Line 801 Stop # 80105 Anaheim Street Station	X					X	X	X	X		X
137	Rail Station	A Line 801 Stop # 80106 Pacific Coast Highway Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
138	Rail Station	A Line 801 Stop # 80107 Willow Street Station	X			X		X	X	X	X		X
139	Rail Station	A Line 801 Stop # 80108 Wardlow Station	X					X	X	X	X		X
140	Rail Station	A Line 801 Stop # 80109 Del Amo Station	X			X		X	X	X	X		X
141	Rail Station	A Line 801 Stop # 80110 Artesia Station	X					X	X	X	X		X
142	Rail Station	A Line 801 Stop # 80111 Compton Station	X			X		X	X	X	X		X
143	Rail Station	A Line 801 Stop # 80112 Willowbrook - Rosa Parks Station - Metro Blue Line	X					X	X	X	X		X
144	Rail Station	A Line 801 Stop # 80113 103rd Street / Watts Towers Station	X					X	X	X	X		X
145	Rail Station	A Line 801 Stop # 80114 Firestone Station	X					X	X	X	X		X
146	Rail Station	A Line 801 Stop # 80115 Florence Station	X					X	X	X	X		X
147	Rail Station	A Line 801 Stop # 80116 Slauson Station	X					X	X	X	X		X
148	Rail Station	A Line 801 Stop # 80117 Vernon Station	X					X	X	X	X		X
149	Rail Station	A Line 801 Stop # 80118 Washington Station	X					X	X	X	X		X
150	Rail Station	A Line 801 Stop # 80119 San Pedro Street Station	X					X	X	X	X		X
151	Rail Station	A Line 801/Stop # 80120 Grand / LATTC Station	X					X	X	X	X		X
152	Rail Station	A/E Line 801 Stop # 80121 Pico Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
153	Rail Station	A/E Line 801 Stop # 80122 7th Street / Metro Center - Metro Blue & Expo Lines	X					X	X	X	X		X
154	Rail Station	E Line 806 Stop # 80123 LATTC / Ortho Institute Station	X					X	X	X	X		X
155	Rail Station	E Line 806 Stop # 80124 Jefferson / USC Station	X					X	X	X	X		X
156	Rail Station	E Line 806 Stop # 80125 Expo Park / USC Station	X					X	X	X	X		X
157	Rail Station	E Line 806 Stop # 80126 Expo / Vermont Station	X					X	X	X	X		X
158	Rail Station	E Line 806 Stop # 80127 Expo / Western Station	X			X		X	X	X	X		X
159	Rail Station	E Line 806 Stop # 80128 Expo / Crenshaw Station	X			X		X	X	X	X		X
160	Rail Station	E Line 806 Stop # 80129 Farmdale Station	X			X		X	X	X	X		X
161	Rail Station	E Line 806 Stop # 80130 Expo / La Brea Station	X			X		X	X	X	X		X
162	Rail Station	E Line 806 Stop # 80131 La Cienega / Jefferson Station	X					X	X	X	X		X
163	Rail Station	E Line 806 Stop # 80132 Culver City Station	X					X	X	X	X		X
164	Rail Station	E Line 806 Stop # 80133 Palms Station	X		X			X	X	X	X		X
165	Rail Station	E Line 806 Stop # 80134 Westwood / Rancho Park Station	X			X		X	X	X	X		X
166	Rail Station	E Line 806 Stop # 80135 Expo / Sepulveda Station	X					X	X	X	X		X
167	Rail Station	E Line 806 Stop # 80136 Expo / Bundy Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
168	Rail Station	E Line 806 Stop # 80137 26th Street / Bergamot Station	X					X	X	X	X		X
169	Rail Station	E Line 806 Stop # 80138 17th Street / SMC Station	X					X	X	X	X		X
170	Rail Station	E Line 806 Stop # 80139 Downtown Santa Monica Station	X					X	X	X	X		X
171	Rail Station	A Line 801 Stop # 80153 1st Street Station	X					X	X	X	X		X
172	Rail Station	A Line 801 Stop # 80154 5th Street Station	X					X	X	X	X		X
173	Rail Station	B Line 802 Stop # 80201 North Hollywood Station	X					X	X	X	X		X
174	Rail Station	B Line 802 Stop # 80202 Universal / Studio City Station	X					X	X	X	X		X
175	Rail Station	B Line 802 Stop # 80203 Hollywood / Highland Station	X					X	X	X	X		X
176	Rail Station	B Line 802 Stop # 80204 Hollywood / Vine Station	X			X		X	X	X	X		X
177	Rail Station	B Line 802 Stop # 80205 Hollywood / Western Station	X					X	X	X	X		X
178	Rail Station	B Line 802 Stop # 80206 Vermont / Sunset Station	X					X	X	X	X		X
179	Rail Station	B Line 802 Stop # 80207 Vermont / Santa Monica Station	X					X	X	X	X		X
180	Rail Station	B Line 802 Stop # 80208 Vermont / Beverly Station	X		X			X	X	X	X		X
181	Rail Station	B/D Lines 802 Stop # 80209 Wilshire / Vermont Station	X					X	X	X	X		X
182	Rail Station	B/D Lines 802 Stop # 80210 Westlake / Macarthur Park Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
183	Rail Station	B/D Lines 802 Stop # 80211 7th Street / Metro Center - Metro Red/Purple Lines	X					X	X	X	X		X
184	Rail Station	B/D Lines 802 Stop # 80212 Pershing Square Station	X					X	X	X	X		X
185	Rail Station	Red/Purple Lines 802 Stop # 80213 Civic Center / Grand Park Station	X					X	X	X	X		X
186	Rail Station	B/D Lines 802 Stop # 80214 Union Station - Metro Red & Purple Lines	X					X	X	X	X		X
187	Rail Station	D Line 805 Stop # 80215 Wilshire / Normandie Station	X		X			X	X	X	X		X
188	Rail Station	D Line 805 Stop # 80216 Wilshire / Western Station	X					X	X	X	X		X
189	Rail Station	C Line 803 Stop # 80301 Redondo Beach Station	X					X	X	X	X		X
190	Rail Station	C Line 803 Stop # 80302 Douglas Station	X					X	X	X	X		X
191	Rail Station	C Line 803 Stop # 80303 El Segundo Station	X					X	X	X	X		X
192	Rail Station	C Line 803 Stop # 80304 Mariposa Station	X					X	X	X	X		X
193	Rail Station	C Line 803 Stop # 80305 Aviation / Lax Station	X					X	X	X	X		X
194	Rail Station	C Line 803 Stop # 80306 Hawthorne / Lennox Station	X					X	X	X	X		X
195	Rail Station	C Line 803 Stop # 80307 Crenshaw Station	X					X	X	X	X		X
196	Rail Station	C Line 803 Stop # 80308 Vermont / Athens Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
197	Rail Station	C Line 803 Stop # 80309 Harbor Freeway Station	X					X	X	X	X		X
198	Rail Station	C Line 803 Stop # 80310 Avalon Station	X					X	X	X	X		X
199	Rail Station	C Line 803 Stop # 80311 Willowbrook - Rosa Parks Station - Metro Green Line	X					X	X	X	X		X
200	Rail Station	C Line 803 Stop # 80312 Long Beach Boulevard Station	X					X	X	X	X		X
201	Rail Station	C Line 803 Stop # 80313 Lakewood Boulevard Station	X					X	X	X	X		X
202	Rail Station	C Line 803 Stop # 80314 Norwalk Station	X			X		X	X	X	X		X
203	Rail Station	L Line 804 Stop # 80401 Atlantic Station	X					X	X	X	X		X
204	Rail Station	L Line 804 Stop # 80402 East La Civic Center Station	X					X	X	X	X		X
205	Rail Station	L Line 804 Stop # 80403 Maravilla Station	X					X	X	X	X		X
206	Rail Station	L Line 804 Stop # 80404 Indiana Station	X					X	X	X	X		X
207	Rail Station	L Line 804 Stop # 80405 Soto Station	X					X	X	X	X		X
208	Rail Station	L Line 804 Stop # 80406 Mariachi Plaza / Boyle Heights Station	X					X	X	X	X		X
209	Rail Station	L Line 804 Stop # 80407 Pico / Aliso Station	X					X	X	X	X		X
210	Rail Station	L Line 804 Stop # 80408 Little Tokyo / Arts District Station	X					X	X	X	X		X
211	Rail Station	L Line 804 Stop # 80409 Union Station - Metro Gold Line	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
212	Rail Station	L Line 804 Stop # 80410 Chinatown Station	X					X	X	X	X		X
213	Rail Station	L Line 804 Stop # 80411 Lincoln Heights / Cypress Park Station	X					X	X	X	X		X
214	Rail Station	L Line 804 Stop # 80412 Heritage Square / Arroyo Station	X					X	X	X	X		X
215	Rail Station	L Line 804 Stop # 80413 Southwest Museum Station	X	X				X	X	X	X		X
216	Rail Station	L Line 804 Stop # 80414 Highland Park Station	X	X				X	X	X	X		X
217	Rail Station	L Line 804 Stop # 80415 South Pasadena Station	X					X	X	X	X		X
218	Rail Station	L Line 804 Stop # 80416 Fillmore Station	X					X	X	X	X		X
219	Rail Station	L Line 804 Stop # 80417 Del Mar Station	X					X	X	X	X		X
220	Rail Station	L Line 804 Stop # 80418 Memorial Park Station	X					X	X	X	X		X
221	Rail Station	L Line 804 Stop # 80419 Lake Station	X					X	X	X	X		X
222	Rail Station	L Line 804 Stop # 80420 Allen Station	X					X	X	X	X		X
223	Rail Station	L Line 804 Stop # 80421 Sierra Madre Villa Station	X					X	X	X	X		X
224	Rail Station	L Line 804 Stop # 80422 Arcadia Station	X					X	X	X	X		X
225	Rail Station	L Line 804 Stop # 80423 Monrovia Station	X					X	X	X	X		X
226	Rail Station	L Line 804 Stop # 80424 Duarte / City of Hope Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
227	Rail Station	L Line 804 Stop # 80425 Irwindale Station	X	X				X	X	X	X		X
228	Rail Station	L Line 804 Stop # 80426 Azusa Downtown Station	X					X	X	X	X		X
229	Rail Station	L Line 804 Stop # 80427 Azusa Pacific University/ Citrus College Station	X					X	X	X	X		X
230	Bus Stop	G Line Stop #15312 Pierce College Station	X					X	X	X	X		X
231	Bus Stop	G Line Stop #15313 Pierce College Station	X					X	X	X	X		X
232	Bus Stop	G Line Stop #15415 Reseda Station	X					X	X	X	X		X
233	Bus Stop	G Line Stop #15416 Reseda Station	X					X	X	X	X		X
234	Bus Stop	G Line Stop #15432 Canoga Station	X					X	X	X	X		X
235	Bus Stop	G Line Stop #15435 Tampa Station	X					X	X	X	X		X
236	Bus Stop	G Line Stop #15436 Tampa Station	X					X	X	X	X		X
237	Bus Stop	G Line Stop #15438 De Soto Station	X					X	X	X	X		X
238	Bus Stop	G Line Stop #15444 Canoga Station	X					X	X	X	X		X
239	Bus Stop	G Line Stop #15453 De Soto Station	X					X	X	X	X		X
240	Bus Stop	G Line Stop #15458 Canoga Station	X					X	X	X	X		X
241	Bus Stop	G Line Stop #15458 Canoga Station	X					X	X	X	X		X
242	Bus Stop	G Line Stop #15515 Balboa Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
243	Bus Stop	G Line Stop #15516 Balboa Station	X					X	X	X	X		X
244	Bus Stop	G Line Stop #15535 Sepulveda Station	X					X	X	X	X		X
245	Bus Stop	G Line Stop #15539 Sepulveda Station	X					X	X	X	X		X
246	Bus Stop	G Line Stop #15546 Van Nuys Station	X					X	X	X	X		X
247	Bus Stop	G Line Stop #15568 Chatsworth Station	X			X		X	X	X	X		X
248	Bus Stop	G Line Stop #15568 Chatsworth Station	X			X		X	X	X	X		X
249	Bus Stop	G Line Stop #15570 Van Nuys Station	X					X	X	X	X		X
250	Bus Stop	G Line Stop #15575 Nordhoff Station	X					X	X	X	X		X
251	Bus Stop	G Line Stop #15583 Woodman Station	X					X	X	X	X		X
252	Bus Stop	G Line Stop #15584 Woodman Station	X					X	X	X	X		X
253	Bus Stop	G Line Stop #15588 Woodley Station	X					X	X	X	X		X
254	Bus Stop	G Line Stop #15590 Roscoe Station	X					X	X	X	X		X
255	Bus Stop	G Line Stop #15600 Sherman Way Station	X					X	X	X	X		X
256	Bus Stop	G Line Stop #15601 Sherman Way Station	X					X	X	X	X		X
257	Bus Stop	G Line Stop #15606 Woodley Station	X		X			X	X	X	X		X
258	Bus Stop	G Line Stop #15607 Roscoe Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
259	Bus Stop	G Line Stop #15608 Nordhoff Station	X					X	X	X	X		X
260	Bus Stop	G Line Stop #15611 Laurel Canyon Station	X					X	X	X	X		X
261	Bus Stop	G Line Stop #15617 Laurel Canyon Station	X					X	X	X	X		X
262	Bus Stop	G Line Stop #15624 Valley College Station	X					X	X	X	X		X
263	Bus Stop	G Line Stop #15661 Valley College Station	X					X	X	X	X		X
264	Bus Stop	G Line Stop #15684 North Hollywood Station	X					X	X	X	X		X
265	Bus Stop	G Line Stop #15684 North Hollywood Station	X					X	X	X	X		X
266	Bus Stop	J Line Stop #70 El Monte Busway / Alameda - Union Station	X					X	X	X	X		X
267	Bus Stop	J Line Stop #378 Harbor Beacon Park Ride - Sb	X		X			X	X	X	X		X
268	Bus Stop	J Line Stop #931 Cal State La Busway Station	X		X			X	X	X	X		X
269	Bus Stop	J Line Stop #1813 Flower / 23rd	X					X	X	X	X		X
270	Bus Stop	J Line Stop #2315 Harbor Transitway / 37th Street / USC	X					X	X	X	X		X
271	Bus Stop	J Line Stop #2320 Harbor Transitway / Manchester	X		X			X	X	X	X		X
272	Bus Stop	J Line Stop #2321 Harbor Transitway / Rosecrans	X		X			X	X	X	X		X
273	Bus Stop	J Line Stop #2322 Harbor Transitway / Slauson	X		X			X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
274	Bus Stop	J Line Stop #2324 Harbor Transitway / Harbor Freeway Station	X		X			X	X	X	X		X
275	Bus Stop	J Line Stop #2377 Flower / Pico	X					X	X	X	X		X
276	Bus Stop	J Line Stop #2378 Flower / Washington	X					X	X	X	X		X
277	Bus Stop	J Line Stop #2603 Beacon / 1st	X					X	X	X	X		X
278	Bus Stop	J Line Stop #3124 Harbor Beacon Park Ride - Nb	X		X			X	X	X	X		X
279	Bus Stop	J Line Stop #3153 Beacon / 1st	X					X	X	X	X		X
280	Bus Stop	J Line Stop #3258 Harbor Freeway & Transit Way – 110 South Exit 7B	X					X	X	X	X		X
281	Bus Stop	J Line Stop #3559 Harbor Freeway & Transit Way on-ramp	X					X	X	X	X		X
282	Bus Stop	J Line Stop #3674 Flower / 7th	X					X	X	X	X		X
283	Bus Stop	J Line Stop #3821 Pacific / 1st	X			X		X	X	X	X		X
284	Bus Stop	J Line Stop #4994 Figueroa / 23rd	X					X	X	X	X		X
285	Bus Stop	J Line Stop #5040 Figueroa / Olympic	X					X	X	X	X		X
286	Bus Stop	J Line Stop #5041 Figueroa / Pico	X					X	X	X	X		X
287	Bus Stop	J Line Stop #5048 USC Medical Center Busway Station	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
288	Bus Stop	J Line Stop #5049 Figueroa / Washington	X					X	X	X	X		X
289	Bus Stop	J Line Stop #5377 1st / Hill	X					X	X	X	X		X
290	Bus Stop	J Line Stop #5395 Pacific / 11th	X					X	X	X	X		X
291	Bus Stop	J Line Stop #5396 Pacific / 15th	X					X	X	X	X		X
292	Bus Stop	J Line Stop #5397 Pacific / 17th	X					X	X	X	X		X
293	Bus Stop	J Line Stop #5408 Pacific / 3rd	X			X		X	X	X	X		X
294	Bus Stop	J Line Stop #5410 Pacific / 7th	X					X	X	X	X		X
295	Bus Stop	J Line Stop #5411 Pacific / 7th	X					X	X	X	X		X
296	Bus Stop	J Line Stop #9129 El Monte Busway / Alameda - Union Station	X					X	X	X	X		X
297	Bus Stop	J Line Stop #9480 Cal State La Busway Station	X					X	X	X	X		X
298	Bus Stop	J Line Stop #10846 Harbor Transitway / Rosecrans	X		X			X	X	X	X		X
299	Bus Stop	J Line Stop #10848 Harbor Transitway / 37th St / USC	X					X	X	X	X		X
300	Bus Stop	J Line Stop #10853 Harbor Transitway / Manchester	X		X			X	X	X	X		X
301	Bus Stop	J Line Stop #10855 Harbor Transitway / Harbor Freeway Station	X		X			X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
302	Bus Stop	J Line Stop #10994 Harbor Transitway / Slauson	X		X			X	X	X	X		X
303	Bus Stop	J Line Stop #11917 Spring / 1st - City Hall	X		X			X	X	X	X		X
304	Bus Stop	J Line Stop #12304 Pacific / 1st	X			X		X	X	X	X		X
305	Bus Stop	J Line Stop #12416 Spring / Temple	X		X			X	X	X	X		X
306	Bus Stop	J Line Stop #13460 HOV Roadway / Adams	X					X	X	X	X		X
307	Bus Stop	J Line Stop #13496 Flower / Olympic	X					X	X	X	X		X
308	Bus Stop	J Line Stop #13560 Grand / 3rd	X					X	X	X	X		X
309	Bus Stop	J Line Stop #13561 Grand / 5th	X		X			X	X	X	X		X
310	Bus Stop	J Line Stop #13802 Pacific / 11th	X					X	X	X	X		X
311	Bus Stop	J Line Stop #13803 Pacific / 15th	X					X	X	X	X		X
312	Bus Stop	J Line Stop #13804 Pacific / 17th	X					X	X	X	X		X
313	Bus Stop	J Line Stop #13805 Pacific / 19th	X					X	X	X	X		X
314	Bus Stop	J Line Stop #13817 Pacific / 3rd	X			X		X	X	X	X		X
315	Bus Stop	J Line Stop #14073 Harbor Freeway / Carson	X					X	X	X	X		X
316	Bus Stop	J Line Stop #15029 USC Medical Center Busway Station	X		X			X	X	X	X		X
317	Bus Stop	J Line Stop #15612 1st / Hill	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
318	Bus Stop	J Line Stop #15713 6th / Flower	X					X	X	X	X		X
319	Bus Stop	J Line Stop #15715 Olive / 5th	X					X	X	X	X		X
320	Bus Stop	J Line Stop #15820 Flower / Adams	X					X	X	X	X		X
321	Bus Stop	J Line Stop #30005 Harbor Gateway Transit Center	X					X	X	X	X		X
322	Bus Stop	J Line Stop #30005 Harbor Gateway Transit Center	X					X	X	X	X		X
323	Bus Stop	J Line Stop #30019 El Monte Station - Upper Level	X					X	X	X	X		X
324	Bus Stop	J Line Stop #30019 El Monte Station - Upper Level	X					X	X	X	X		X
325	Bus Stop	J Line Stop #141012 Pacific / 21st Layover	X					X	X	X	X		X
326	Bus Stop	J Line Stop #141012 Pacific / 21st Layover	X					X	X	X	X		X
327	Bus Stop	J Line Stop #141079 Harbor Freeway / Pacific Coast	X					X	X	X	X		X
328	Bus Stop	J Line Stop #141080 Harbor Freeway / Carson	X					X	X	X	X		X
329	Bus Stop	J Line Stop #142216 Harbor Freeway / Pacific Coast	X		X			X	X	X	X		X
330	Bus Stop	J Line Stop #65300038 Figueroa / Victoria	X					X	X	X	X		X
331	Bus Stop	J Line Stop #65300039 Figueroa / 190th	X					X	X	X	X		X
332	Bus Stop	J Line Stop #65300042 Figueroa / 7th	X					X	X	X	X		X
333	Bus Stop	J Line Stop #70500012 Olive / General Thaddeus Kosciuszko	X		X			X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
334	Rail Station	Commerce Metrolink Station 6433 26th Street, Commerce	X					X	X	X	X		X
335	Rail Station	Norwalk/Santa Fe Springs Metrolink Station 12700 Imperial Highway, Norwalk	X		X			X	X	X	X		X
336	Rail Station	Downtown Pomona Metrolink Station 100 East Commercial Street, Pomona	X					X	X	X	X		X
337	Rail Station	Industry Metrolink Station 600 South Brea Canyon Road, Industry	X					X	X	X	X		X
338	Rail Station	Claremont Metrolink Station 200 West 1st Street, Claremont	X					X	X	X	X		X
339	Rail Station	Pomona Metrolink Station 205 Santa Fe Street, Pomona	X					X	X	X	X		X
340	Rail Station	Covina Metrolink Station 600 North Citrus Avenue, Covina	X					X	X	X	X		X
341	Rail Station	Baldwin Park Metrolink Station 3825 Downing Avenue, Baldwin Park	X					X	X	X	X		X
342	Rail Station	El Monte Metrolink Station 10925 Railroad Street, El Monte	X					X	X	X	X		X
343	Rail Station	Cal State La Metrolink Station 5150 State University Drive, Los Angeles	X		X			X	X	X	X		X
344	Rail Station	La County Fairgrounds Metrolink Station Arrow Highway, Pomona	X					X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
345	Rail Station	Lancaster Metrolink Station 44812 Sierra Highway, Lancaster	X			X		X	X	X	X		X
346	Rail Station	Vincent Grade/Acton Metrolink Station 550 West Sierra Highway, County	X	X		X		X	X	X	X		X
347	Rail Station	Santa Clarita Metrolink Station 22122 Soledad Canyon Rd, Santa Clarita	X	X		X		X	X	X	X		X
348	Rail Station	Princessa Metrolink Station 19201 Via Princessa, Santa Clarita	X			X		X	X	X	X		X
349	Rail Station	Sylmar/San Fernando Metrolink Station 12219 Frank Modugno Drive, Los Angeles	X					X	X	X	X		X
350	Rail Station	Glendale Metrolink Station 400 West Cerritos Avenue, Glendale	X					X	X	X	X		X
351	Rail Station	Sun Valley Metrolink Station San Fernando & Olinda, Los Angeles	X					X	X	X	X		X
352	Rail Station	Newhall Metrolink Station Santa Clarita	X			X		X	X	X	X		X
353	Rail Station	Palmdale Metrolink Station 39000 Clock Tower Plaza Drive, Lancaster	X			X		X	X	X	X		X
354	Rail Station	Chatsworth Metrolink Station 21510 Devonshire Blvd, Chatsworth	X			X		X	X	X	X		X

Hazards														
#	Asset Category	Metro Critical Assets	Earthquakes	Wildfires	Landslides	Floods	Tsunamis	Windstorms	Climate Change	Drought	Extreme Heat	Sea Level Rise	Epidemic / Pandemic / Vector-Borne Diseases
355	Rail Station	Northridge Metrolink Station 8775 Wilbur Avenue, Los Angeles	X			X		X	X	X	X		X
356	Rail Station	Van Nuys Metrolink Station 7720 Van Nuys Blvd, Van Nuys	X					X	X	X	X		X
357	Rail Station	Burbank Airport Metrolink Station 3750 Empire Avenue, Burbank	X			X		X	X	X	X		X
358	Railroad Passenger Terminal	Los Angeles Union Station 800 North Alameda Street, Los Angeles	X					X	X	X	X		X
359	Rail Station	Commerce/Montebello Metrolink Station 2000 Flotilla Street, Montebello	X					X	X	X	X		X
360	Rail Station	Downtown Burbank Metrolink Station 201 North Front Street, Burbank	X					X	X	X	X		X

The hazard assessment of Metro's Critical Assets reveals a universal vulnerability to the impacts of earthquakes, windstorms, and climate changes. For many years, Metro has been proactive in fortifying its buildings and facilities against these hazards. The Mitigation Actions Matrix (located in Mitigation Strategies) identifies several actions that can be taken by Metro departments to further minimize the impacts associated with these hazards. Although not as "regional" in nature, wildfires, landslides, floods, and tsunamis also pose a significant threat to Metro. This assessment emphasizes the importance of conducting a site by site review. Knowing a particular location is vulnerable to certain hazards greatly increases the likelihood of proactive measures, alerting, and well informed emergency response.

Earthquake Hazards

Hazard Definition

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the Earth's tectonic plates. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and, after just a few seconds, can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. The photo to the below is of a residential complex in Northridge that experienced severe damage from the magnitude 6.7 earthquake on January 17, 1994.

Photo: Soft Story Building Collapse at Northridge, California,
Source: FEMA Photo Library

Caption: Soft Story Building Collapse at Northridge, California.

One tool used to describe earthquake intensity is the Magnitude Scale. The Magnitude Scale is sometimes referred to as the Richter Scale. The two are similar but not exactly the same. The Magnitude Scale was devised as a means of rating earthquake strength and is an indirect measure of seismic energy released. The Scale is logarithmic with each one-point increase corresponding to a 10-fold increase in the amplitude of the seismic shock waves generated by the earthquake. In terms of actual energy released, however, each one-point increase on the Richter scale corresponds to about a 32-fold increase in energy released. Therefore, a Magnitude 7 (M7) earthquake is 100 times (10 X 10) more powerful than a M5 earthquake and releases 1,024 times (32 X 32) the energy.

Photo: Portable Seismic Station
Source: USGS

Caption: Two portable sensors: a strong motion sensor (to record strong shaking that can be felt) and a broadband sensor (to record weak motion for detecting small earthquakes) buried into the ground to detect earthquakes. These stations can be quickly deployed and send real-time data back to the USGS via cellular telemetry immediately after they are installed.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.
Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Previous Occurrences of Earthquakes in the Metro Service Area** below.

Previous Occurrences of Earthquakes in the Metro Service Area

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), significant earthquakes in the county over the past 50 years include the following:

Date	Location	Impact
July 6, 2019	Ridgecrest (M 7.1)	fires reported as a result of gas leaks no reported major injuries, deaths or major building damage
March 28, 2014	La Habra (M 5.1)	few injuries and $10 million dollars in damages
July 29, 2008	Chino Hills (M 5.5)	8 injuries and limited damages
January 17, 1994	Northridge (M 6.7)	57 deaths, 8,700 injuries and up to $40 billion dollars in damages
June 28, 1991	Sierra Madre (M 5.6)	1 death, 100+ injuries and up to $40 million dollars in damages
February 28, 1990	Upland (M 5.7)	30 injuries and $12.7 million dollars in damages
October 1, 1987	Whitter (M 5.9)	8 deaths, 200 injuries and $358 million in damages
February 9, 1971	San Fernando (M 6.6)	58 – 65 deaths, 200 – 2,000 injuries and up to $553 million in damages

Photo: Northern end of rupture resulting from the M7.1 Searles Valley quake
Source: Ryan Gold, USGS

Caption: Fault rupture crosses dirt road, with California Geological Survey vehicles for scale. Displacement at this location is primarily normal (vertical). Photograph taken near the northern end of the rupture resulting from the M7.1 Searles Valley earthquake.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.
Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.
Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii)) **A:** See **Local Conditions** below.

Local Conditions

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), the county is susceptible to 3,041.91 (63.90%) square miles with violent low frequency shaking potential; and 711.01 square miles (14.93%) with extreme low frequency shaking potential. In unincorporated areas of Los Angeles County, there are 1,783.57 (58.65%) square miles with violent low frequency shaking potential; and 527.60 square miles (17.35%) with extreme low frequency shaking potential.

California Building Code (CBC) was substantially revised and updated in the aftermath of the Northridge Earthquake. Various building types (Steel, Concrete, Masonry, Wood or hybrid) designed and constructed after the Northridge EQ would perform much better in a seismic event with less severe damage, in comparison to buildings designed and constructed prior to Northridge EQ.

Violent perceived shaking can produce the potential for heavy damage. According to the USGS, this could mean that well-designed framed structures could be thrown out of plumb and substantial buildings could experience partial building collapse. In extreme shaking, the USGS notes that some well-built wooden structures could be destroyed, and most masonry and frame structures with foundations could be destroyed.

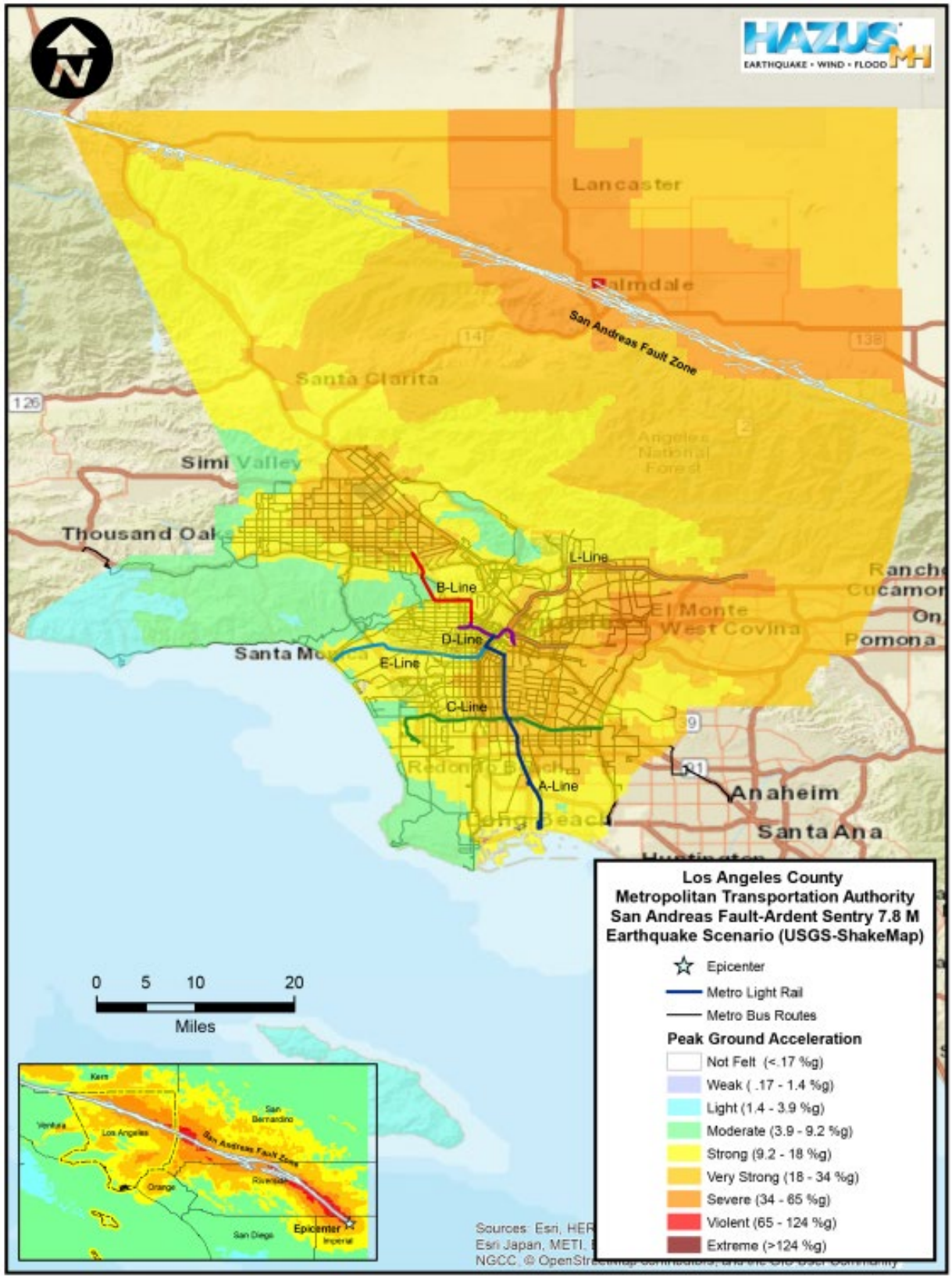
Photo: Metro Gold Line (now L line) to Azusa
Source: Metro Climate Action and Adaptation Plan, 2019

Caption: Metro Gold Line (now L line) to Azusa

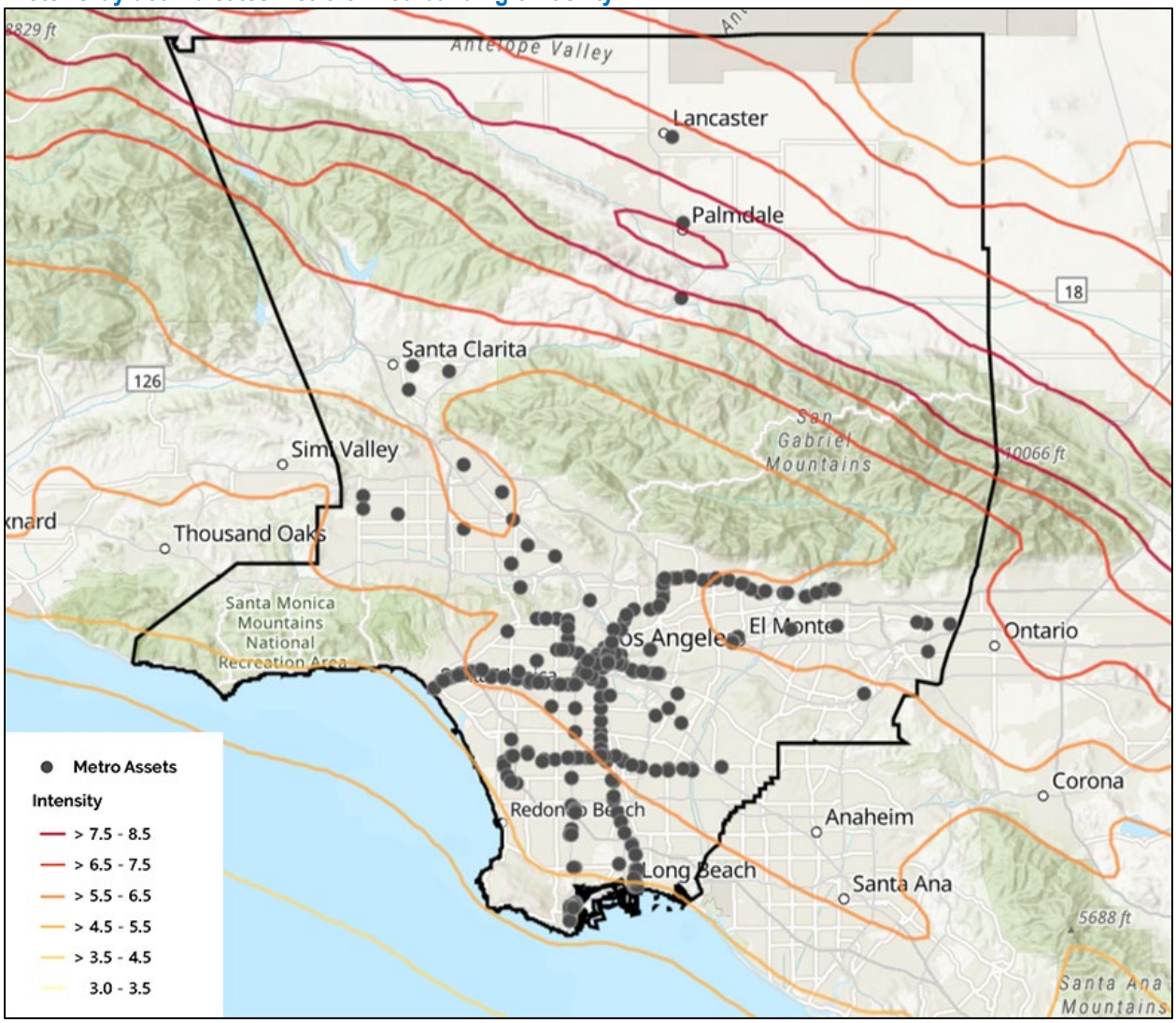
San Andreas Fault Zone

The San Andreas Fault Zone goes directly through the Metro service area. This fault zone extends from the Gulf of California northward to the Cape Mendocino area where it continues northward along the ocean floor. The total length of the San Andreas Fault Zone is approximately 750 miles. The activity of the fault has been recorded during historic events, including the 1906 (M8.0) event in San Francisco and the 1857 (M7.9) event between Cholame and San Bernardino, where at least 250 miles of surface rupture occurred. These seismic events are among the most significant earthquakes in California history. Geologic evidence suggests that the San Andreas Fault has a 50 percent chance of producing a magnitude 7.5 to 8.5 quake (comparable to the great San Francisco earthquake of 1906) within the next 30 years.

Map: Shake Intensity Map - San Andreas Fault M7.8
(Source: Emergency Planning Consultants)



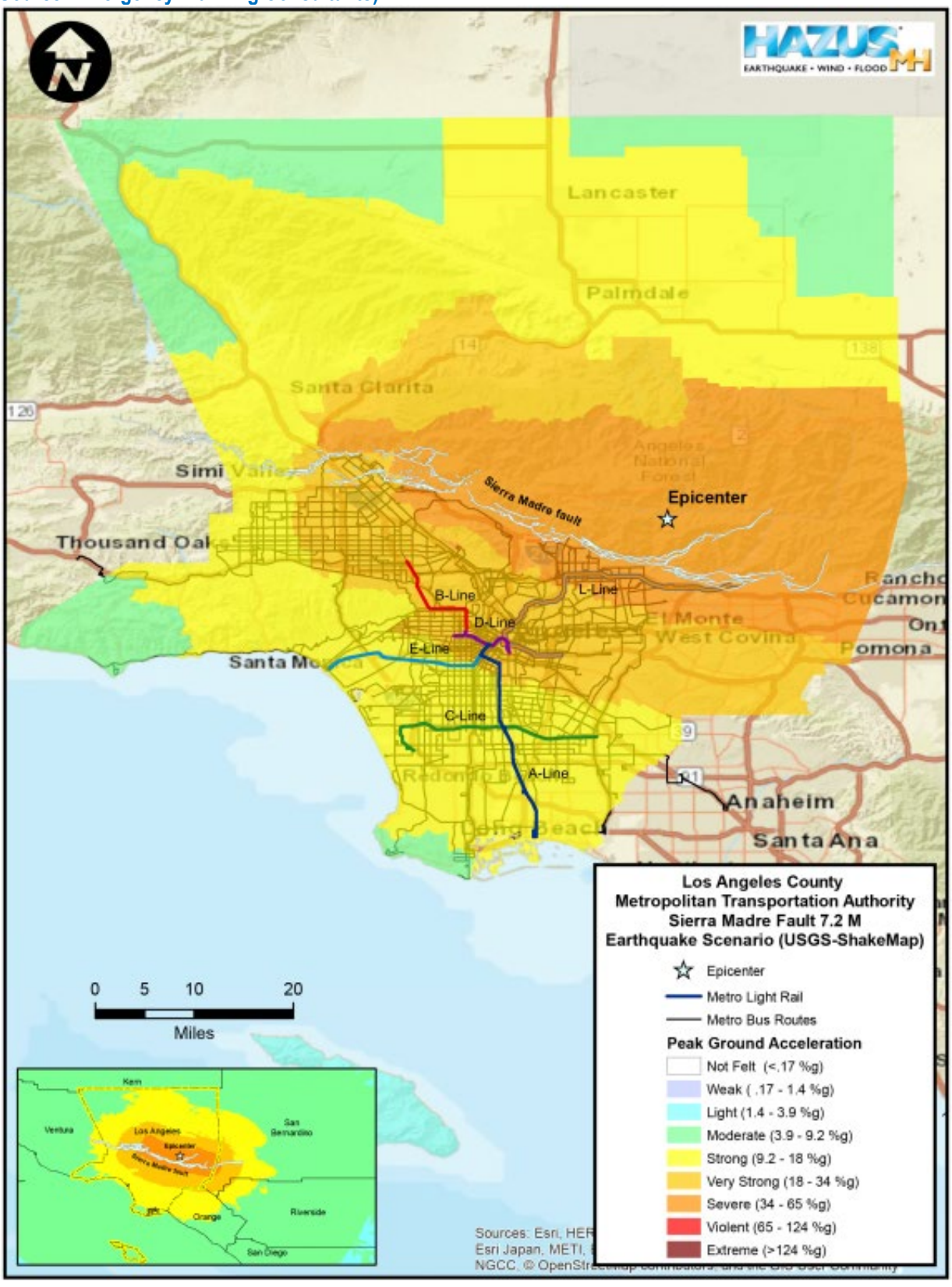
Map: Metro Critical Assets Impacted by Earthquake M7.8 Southern San Andreas Fault
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



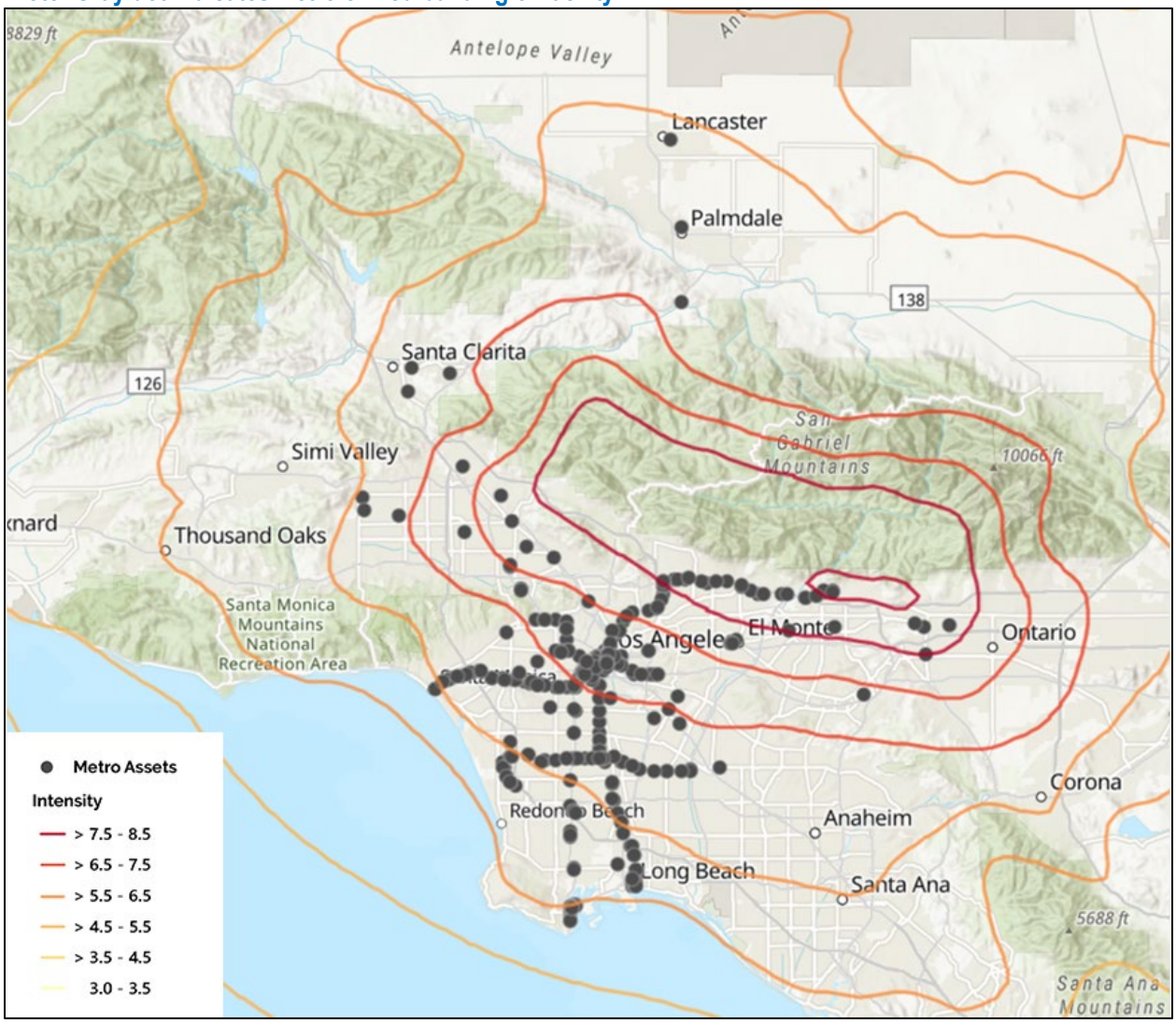
Sierra Madre Fault Zone

The Sierra Madre fault zone is a series of moderate angle, north-dipping, reverse faults (thrust faults). Movement along these frontal faults has resulted in the uplift of the San Gabriel Mountains. According to the Southern California Earthquake Data Center, rupture on the Sierra Madre fault zone (theoretically) could be limited to one segment at a time, it has recently been suggested that a large event on the San Andreas fault to the north (like that of 1857) could cause simultaneous rupture on reverse faults south of the San Gabriel Mountains – the Sierra Madre fault zone being a prime example of such. Whether this could rupture multiple Sierra Madre fault zone segments simultaneously is unknown. Seismic activity on the Sierra Madre Fault is expected to have a maximum magnitude of 7.2.

Map: Shake Intensity Map – Sierra Madre Fault M7.2
(Source: Emergency Planning Consultants)



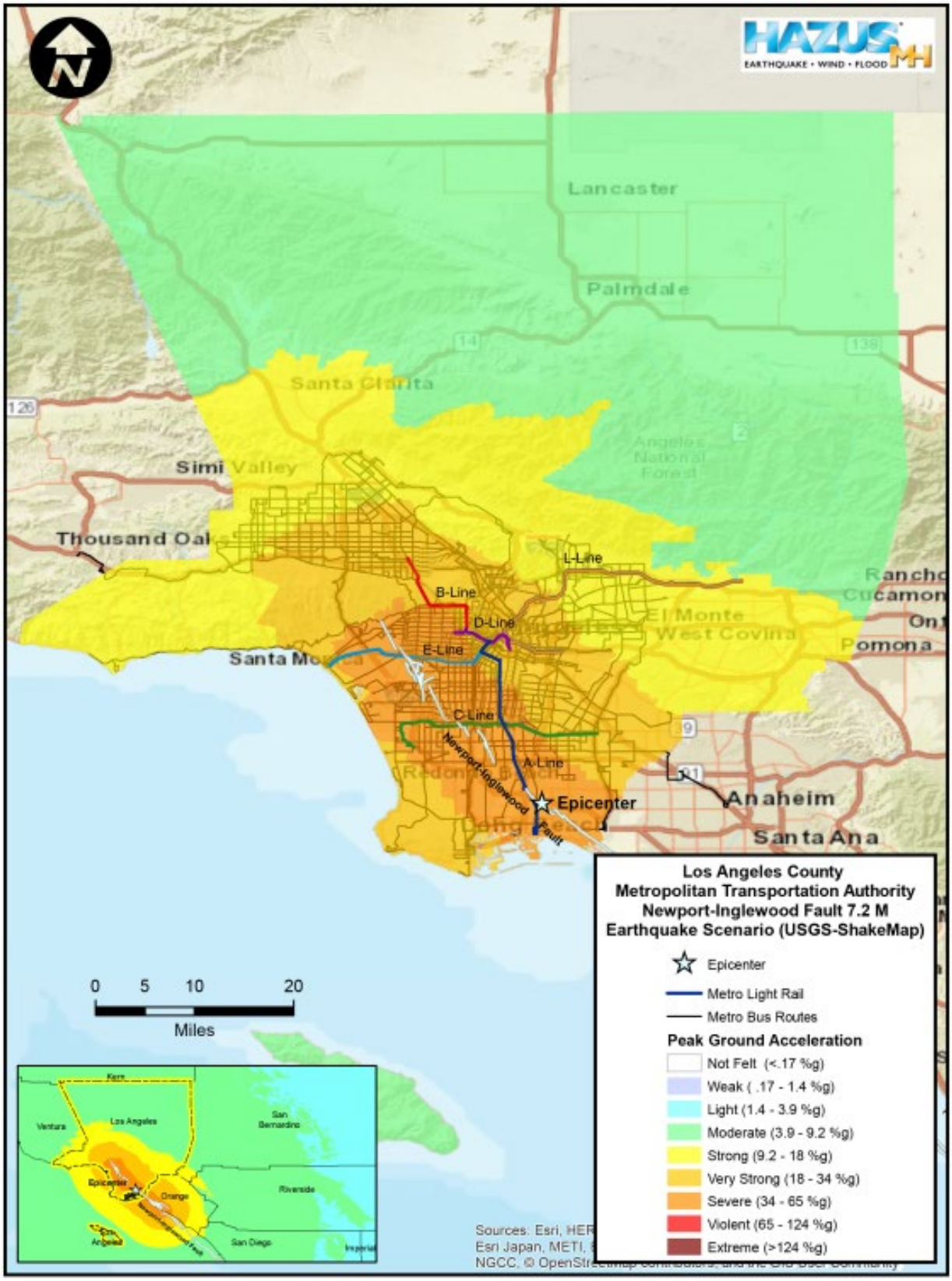
Map: Metro Critical Assets Impacted by Earthquake M7.2 Sierra Madre Fault
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



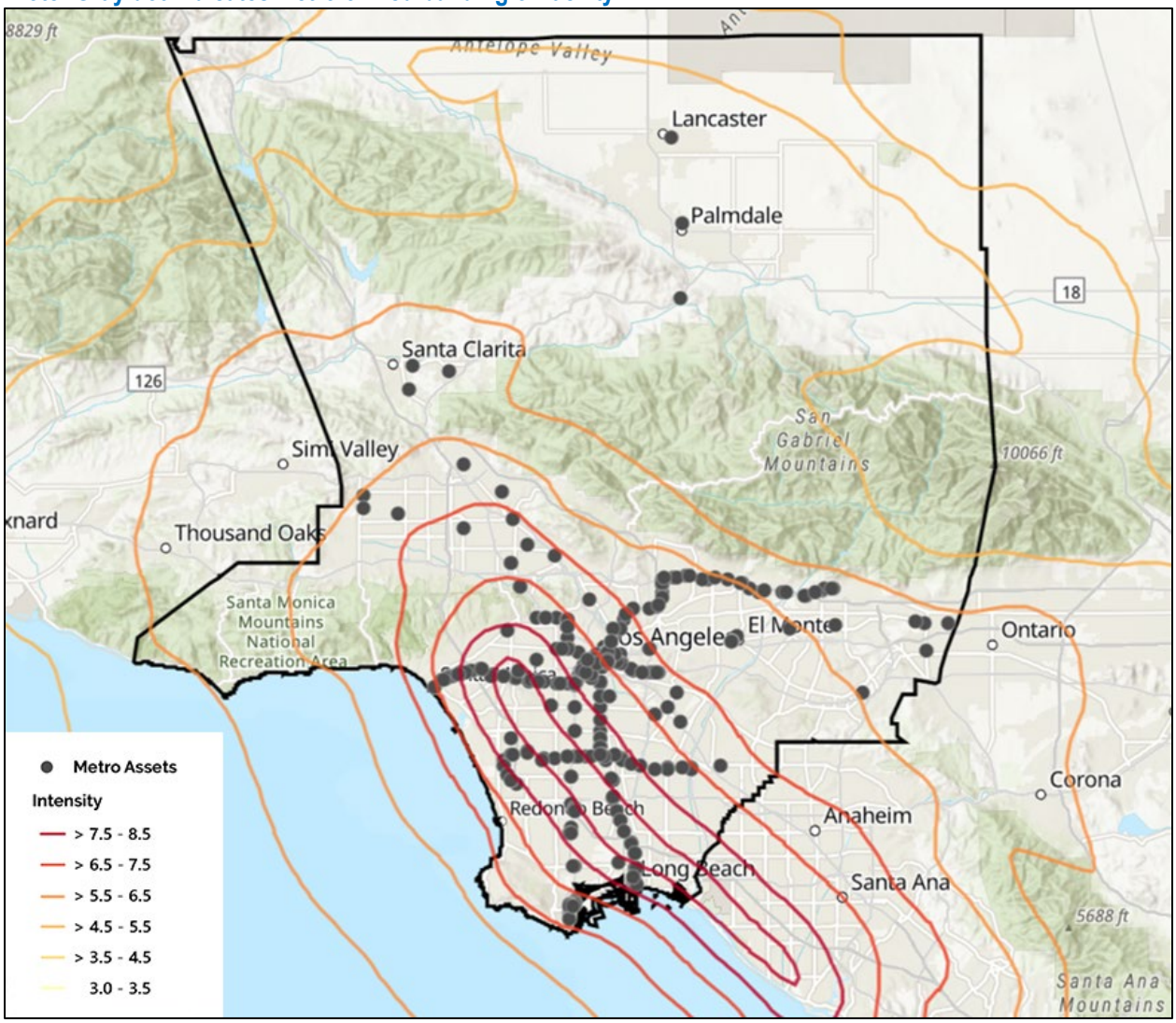
Newport-Inglewood Fault

The Newport-Inglewood Fault is a right-lateral fault with a length of 75 km in the Los Angeles Basin. The fault zone can easily be noted by the existence of a chain of low hills extending from Culver City to Signal Hill. South of Signal Hill, it roughly parallels the coastline until just south of Newport Bay, where it heads offshore, and becomes the Newport-Inglewood – Rose Canyon fault zone. The most recent rupture was on March 10, 1993 (M6.4) but was not a surface rupture.

Map: Shake Intensity Map – Newport-Inglewood Fault M7.2
(Source: Emergency Planning Consultants)



Map: Metro Critical Assets Impacted by Earthquake M7.2 Newport-Inglewood Fault
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



Earthquake Related Hazards

Ground shaking, landslides, and liquefaction are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

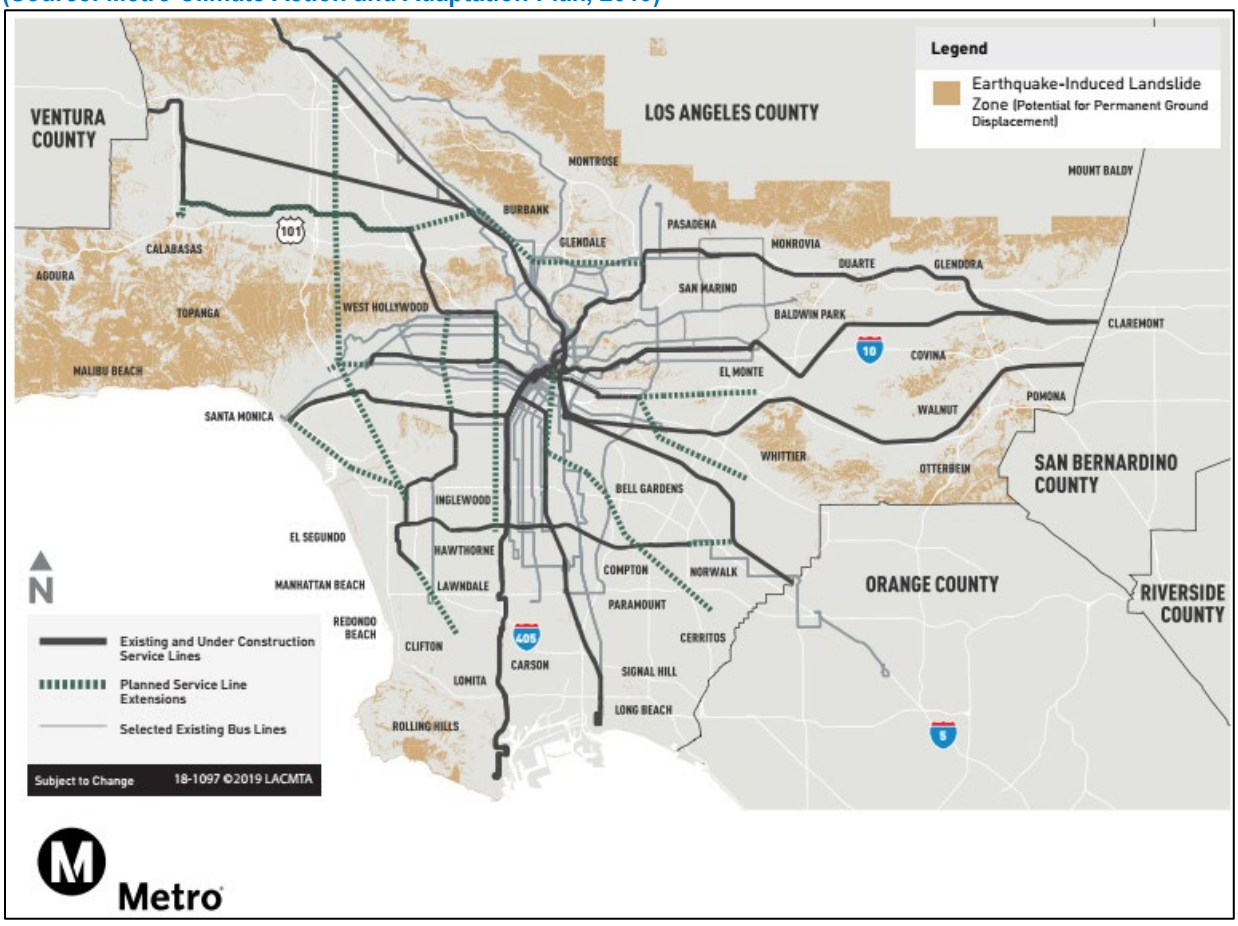
Earthquake-Induced Landslides

Earthquake-induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes.

Rock falls may happen suddenly and without warning but are more likely to occur in response to earthquake induced ground shaking, during periods of intense rainfall, or as a result of human activities, such as grading and blasting. Ground acceleration of at least 0.10g in steep terrain is necessary to induce earthquake-related rock falls.

Map: Landslide Exposure to Metro Service Lines shows the moderate risk of earthquake-induced landslide risk within the Metro service area.

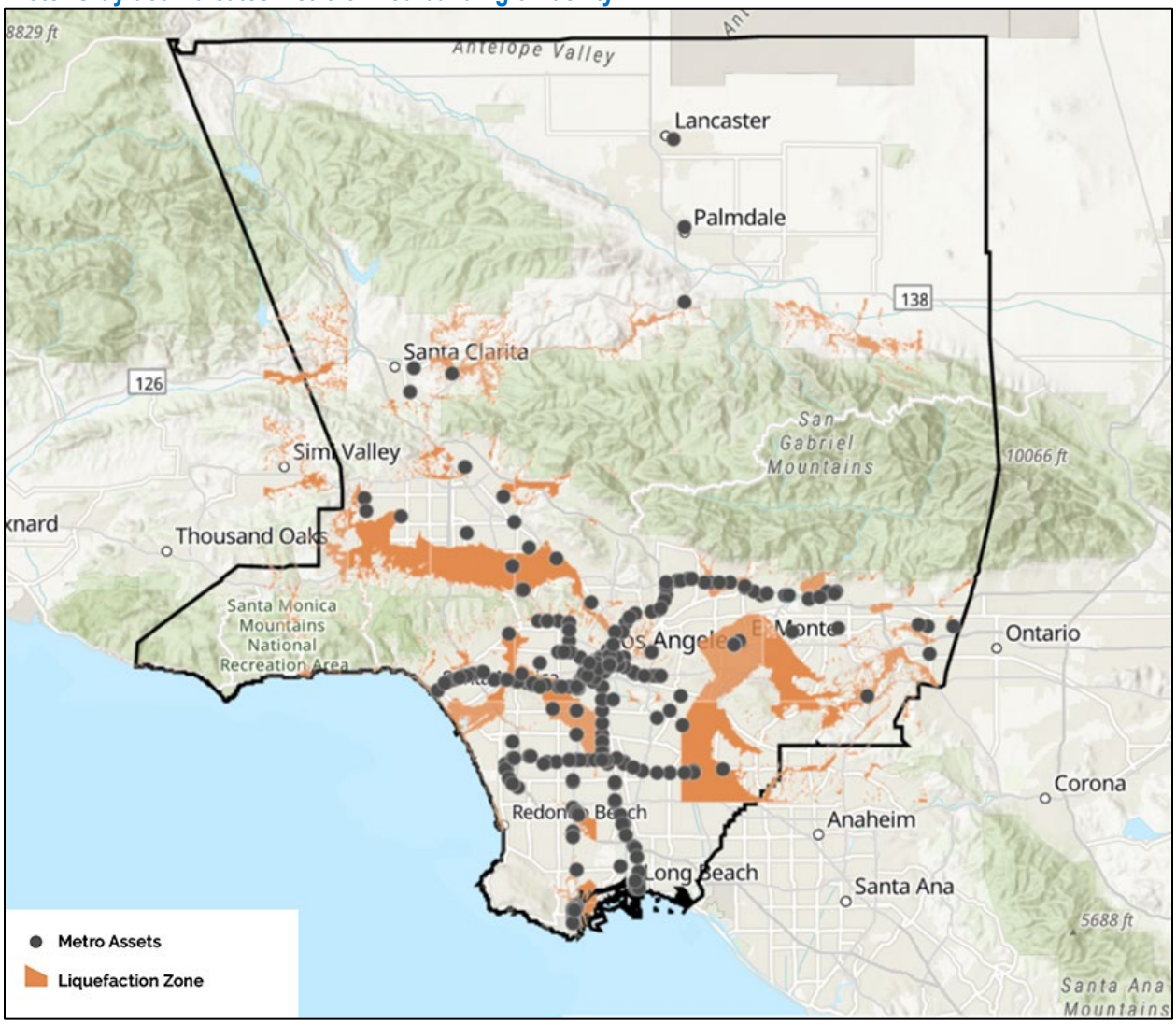
Map: Landslide Exposure to Metro Service Lines
(Source: Metro Climate Action and Adaptation Plan, 2019)



Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other events. Liquefaction occurs in saturated soils, which are soils in which the space between individual soil particles is completely filled with water. This water exerts a pressure on the soil particles that influences how tightly the particles themselves are pressed together. Prior to an earthquake, the water pressure is relatively low. However, earthquake shaking can cause the water pressure to increase to the point where the soil particles can readily move with respect to each other. Because liquefaction only occurs in saturated soil, its effects are most commonly observed in low lying areas. Typically, liquefaction is associated with shallow groundwater, which is less than 50 feet beneath the earth's surface.

Map: Metro Critical Assets Impacted by Liquefaction
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.
Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii)) **A:** See **Impact of Earthquakes in the Metro Service Area** below.

Impact of Earthquakes in the Metro Service Area

Based on the risk assessment, it is evident that earthquakes will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

Wildfire Hazards

Photo: Modoc July Complex Fire
Source: CAL OES

Hazard Definition

A wildfire is an uncontrolled fire spreading through vegetative fuels and exposing or possibly consuming structures. They often begin unnoticed and spread quickly. Naturally occurring and non-native species of grasses, brush, and trees fuel wildfires. A wildland fire is a wildfire in an area in which development is essentially nonexistent, except for roads, railroads, power lines and similar facilities. A wildland/urban interface fire is a wildfire in a geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.

Caption: Modoc July Complex Fire

Photo: Modoc July Complex Fire
Source: CAL OES

Caption: Modoc July Complex Fire

Wildfire Characteristics

There are three categories of wildland/urban interface fire: The classic wildland/urban interface exists where well-defined urban and suburban development presses up against open expanses of wildland areas; the mixed wildland/urban interface is characterized by isolated homes, subdivisions, and small communities situated predominantly in wildland settings. The occluded wildland/urban interface exists where islands of wildland vegetation occur inside a largely urbanized area. Certain conditions must be present for significant interface fires to occur. The most common conditions include hot, dry and windy weather; the inability of fire protection forces to contain or suppress the fire; the occurrence of multiple fires that overwhelm committed resources; and a large fuel load (dense vegetation). Once a fire has started, several conditions influence its behavior, including fuel topography, weather, drought, and development.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

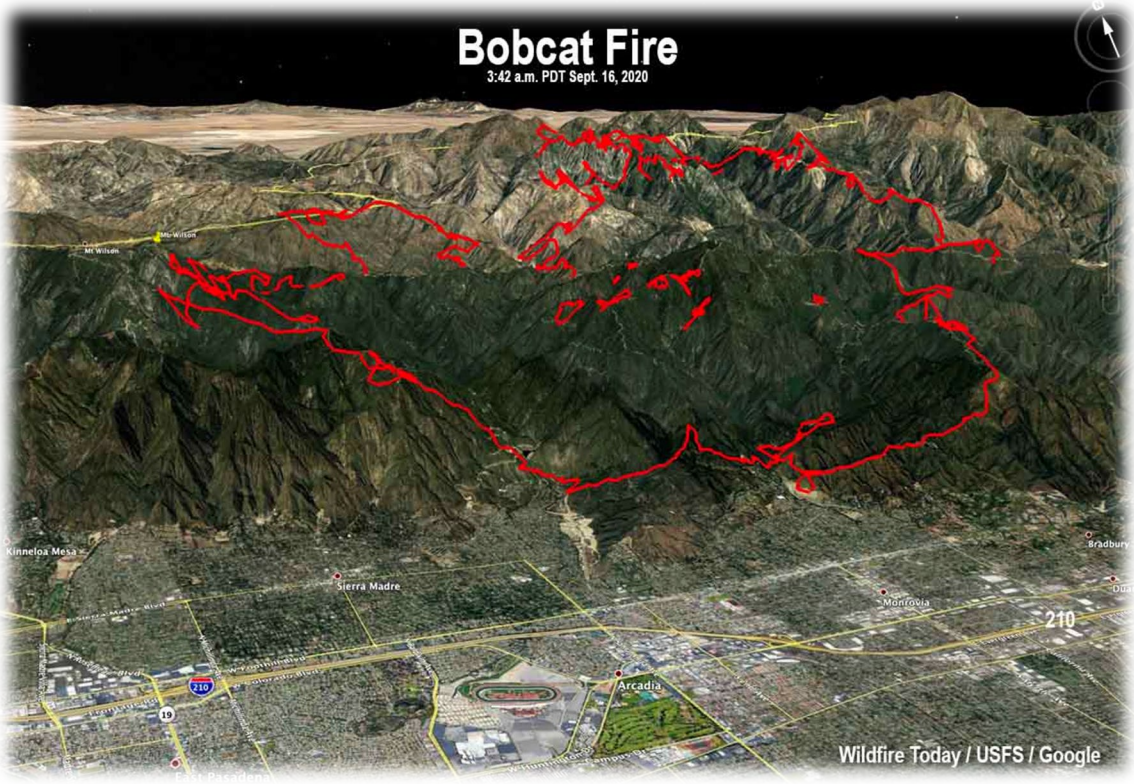
Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Wildfire in the Metro Service Area** below.

Previous Occurrences of Wildfire in the Metro Service Area

According to the County of Los Angeles Fire Department, the most recent significant wildfire event to impact the County of Los Angeles is the ongoing Bobcat Fire, which began on September 8, 2020 in the Angeles National Forest in Azusa, CA. As of September 25, the fire has burned approximately 114,000 acres and is 55% contained. The fire is located near the Cogswell Dam and West Fork Day Use area. The fire is burning in heavy fuels with a rapid rate of spread.

3-D Map: Bobcat Fire
Source: Wildfire Today/USFS/Google



Caption: 3-D map of the Bobcat Fire. The red dots represent heat detected by a satellite at 3:42 a.m. PDT Sept 16, 2020. The red line was the perimeter as mapped by an aircraft at 10:48 p.m. MDT Sept. 15, 2020. Looking north-northeast.

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), NOAA Storm Events Database, and County of Los Angeles Fire Department, some of the county's most destructive fires have occurred since 2000, including:

Table: County's Most Destructive Fires Since 2000
(Sources: County of Los Angeles AHMP 2019, NOAA Storm Events Database, County of Los Angeles Fire Department)

Date	Fire	Damage
September 6, 2020	The Bobcat Fire	Burned approximately 114,000 acres in the Angeles National Forest, Azusa.
August 12, 2020	The Lake Fire	Burned 31,089 acres in Lake Hughes, an unincorporated area of Los Angeles County. There were 4 injuries and 12 structures destroyed.
July 6, 2020	The Soledad Fire	Burned 1,525 acres in Soledad Canyon. There was one firefighter injury and zero structures destroyed.
October 28, 2019	The Getty Fire	Burned over 700 acres across the Santa Monica Mountains, near the Getty Museum. The fire damaged or destroyed 25 residences.
October 24, 2019	The Tick Fire	Burned over 4600 acres in the Canyon County area of Los Angeles county. The fire destroyed and damaged numerous residences.
October 10, 2019	The Saddleridge Fire	Burned over 8700 acres in the foothills of the San Fernando Valley in Los Angeles county. Over 100 residences were either damaged or destroyed by the fire. Additionally, there was one civilian death was reported due to cardiac arrest.
November 8, 2018	The Woolsey Fire	Burned a total of 96,949 acres in Los Angeles and Ventura counties including Thousand Oaks, Agoura Hills, Calabasas, the Santa Monica Mountains, Malibu, and West Hills. A total of 1,643 structures were destroyed and 3 people were killed.
September 22, 2009	The Station Fire	Burned a total of 160,883 acres in the Angeles National Forest. The Station Fire is the largest recorded fire in Los Angeles County. It destroyed 89 residences and another 120 buildings of significance. Two firefighters were killed. The cause of the fire was arson.
October 20, 2007	The Ranch Fire	Burned a total of 58,410 acres near Townsend Peak in the Angeles National Forest. The cause of the fire was equipment.
October 30, 2006	The Day Fire	Burned a total of 161,816 acres. The fire primarily burned the Los Padres National Forest. The cause of the fire was human ignited debris.
October 25, 2003	The Simi Fire	Burned a total of 107,570 acres between Simi Hills and southeastern Simi Valley, in eastern Ventura County and western Los Angeles County, California. It destroyed 37 homes and 278 buildings. The cause of the fire remains unknown.
October 21, 2003	The Grand Prix Fire	Burned a total of 50,618 acres between Claremont and Lytle Creek. The fire destroyed 136 homes and was ruled "accidental but human-initiated."

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.

Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Local Conditions** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.

Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii))
A: See **Local Conditions** below.

Local Conditions

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), the climate in Los Angeles County is characterized as Mediterranean, featuring cool, wet winters and warm, dry summers. High moisture levels during the winter rainy season significantly increase the growth of plants. However, the vegetation is dried during the long, hot summers, decreasing plant moisture content and increasing the ratio of dead fuel to living fuel. As a result, fire susceptibility increases dramatically, particularly in late summer and early autumn. In addition, the presence of chaparral, a drought-resistant variety of vegetation that is dependent on occasional wildfires, is expected in Mediterranean dry-summer climates.

Photo: Bobcat Fire
Source: InciWeb – Incident Information System

Caption: S-61 conducting bucket drops on the Bobcat Fire on September 14, 2020.

Additionally, a local meteorological phenomenon, known as the Santa Ana winds, contributes to the high incidence of wildfires in Los Angeles County. These winds originate during the autumn months in the hot, dry interior deserts to the north and east of Los Angeles County. They often sweep west into the county, bringing extremely dry air and high wind speeds that further desiccate plant communities during the period of the year when the constituent species have very low moisture content. The effect of these winds on existing fires is particularly dangerous; the winds can greatly increase the rate at which fires spread.

In Los Angeles County, there are 386.06 square miles (8.11%) located in the very high LRA FHSZ, 625.01 square miles (13.13%) in the very high SRA FHSZ, and 132.77 square miles (2.79%) in the high SRA FHSZ. In the Unincorporated Los Angeles County, this includes: 23.53 square miles (0.77%) of very high LRA FHSZ; 610.94 square miles (20.09%) of very high SRA FHSZ; and 132.06 square miles (4.34%) of high SRA FHSZ.

As of September 25, 2020, the Bobcat Fire is affecting the Metro project area in the Angeles National Forest in Azusa. The fire began on September 6 and the cause is under investigation. It is 55% contained and has burned approximately 114,000 acres so far. A significant warming and drying trend will induce record temperatures and extremely low humidity, accompanied by windy conditions

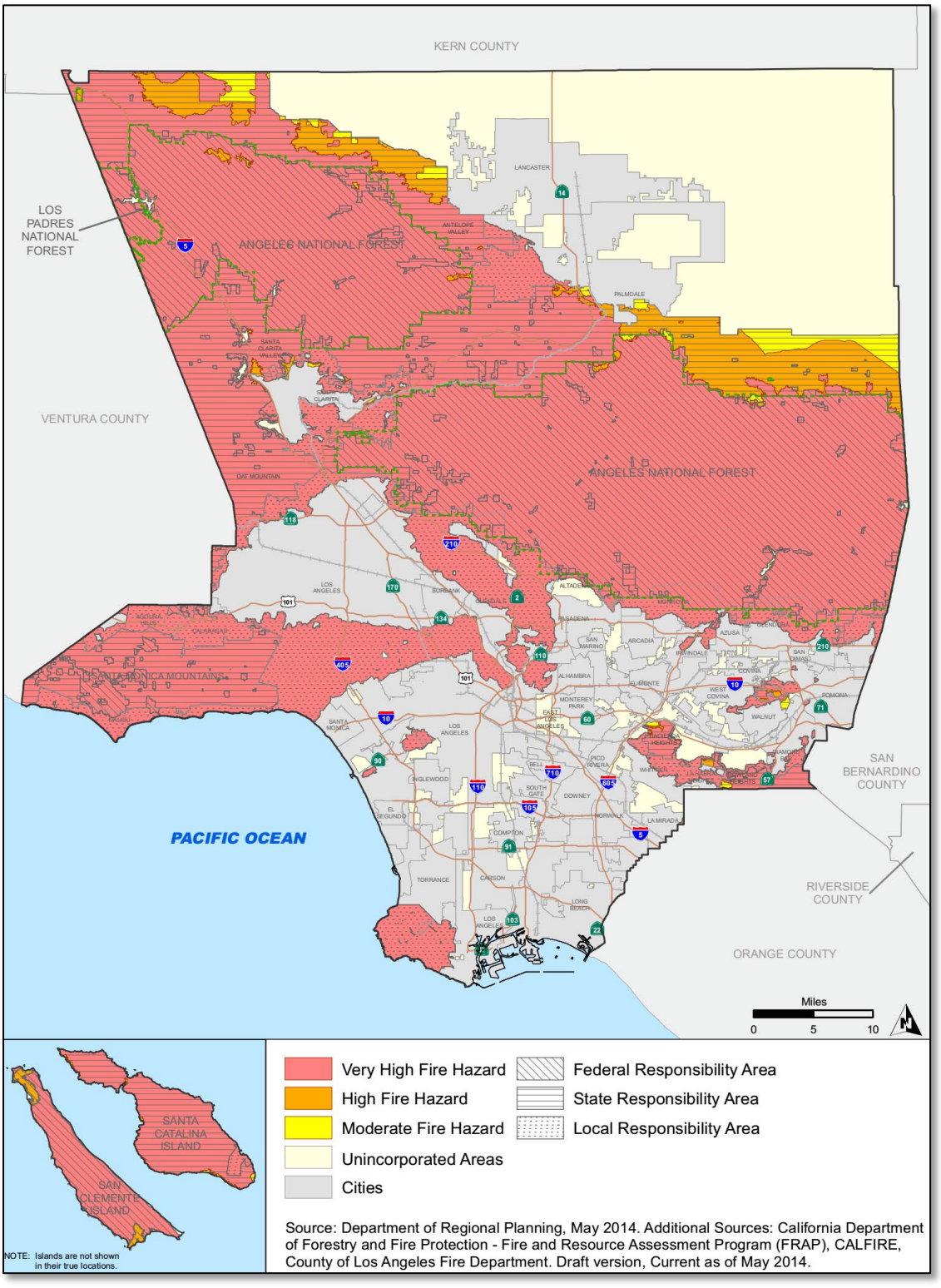
Photo: Bobcat Fire
Source: InciWeb – Incident Information System

Caption: Firefighters conduct firing operation on the Bobcat Fire, Sept. 14, 2020.

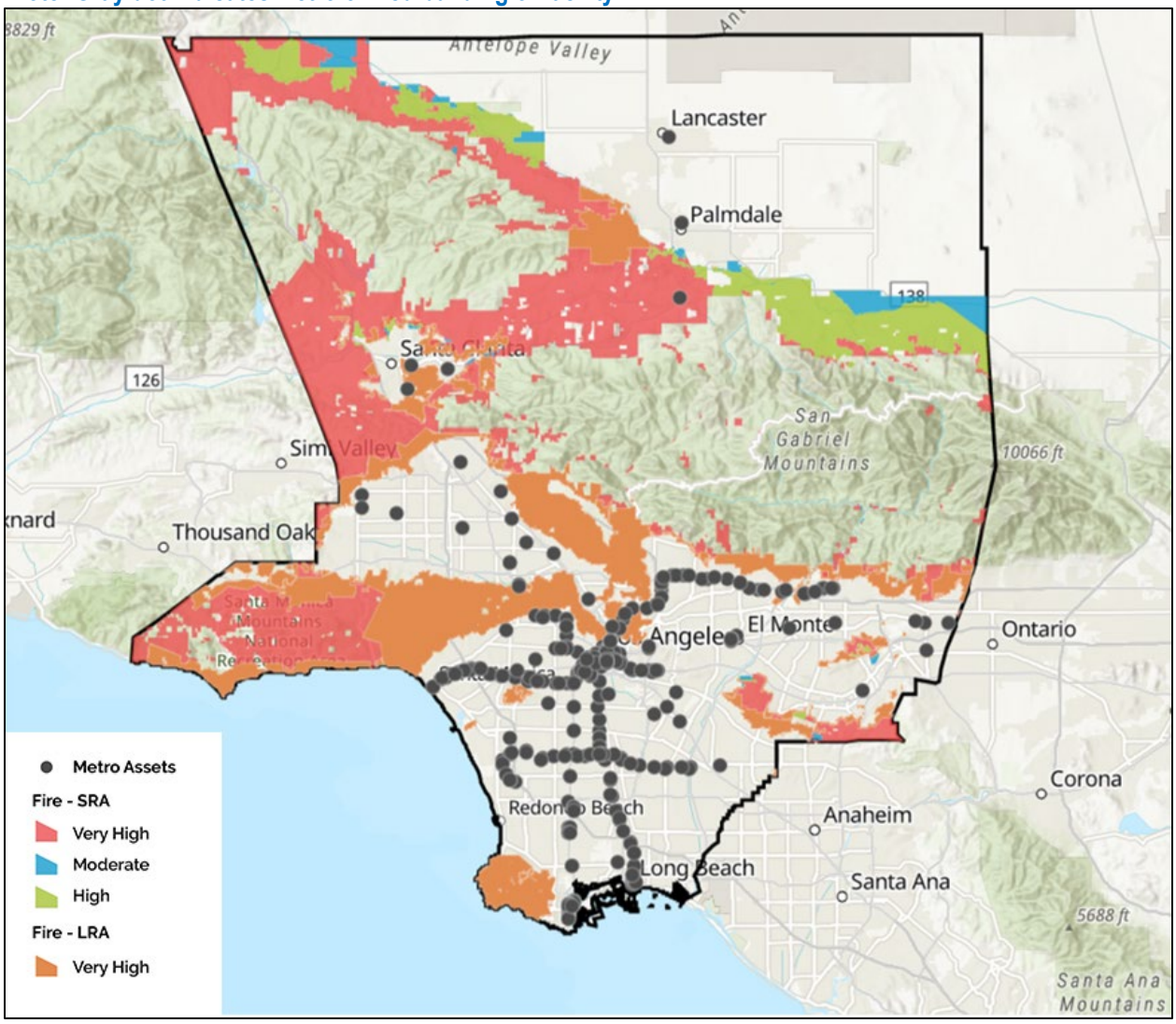
Photo: Bobcat Fire
Source: InciWeb – Incident Information System

Caption: Strategic Firing Night of September 22, 2020.

Map: Fire Hazard Severity Zones
(Source: Los Angeles County General Plan, 2015)

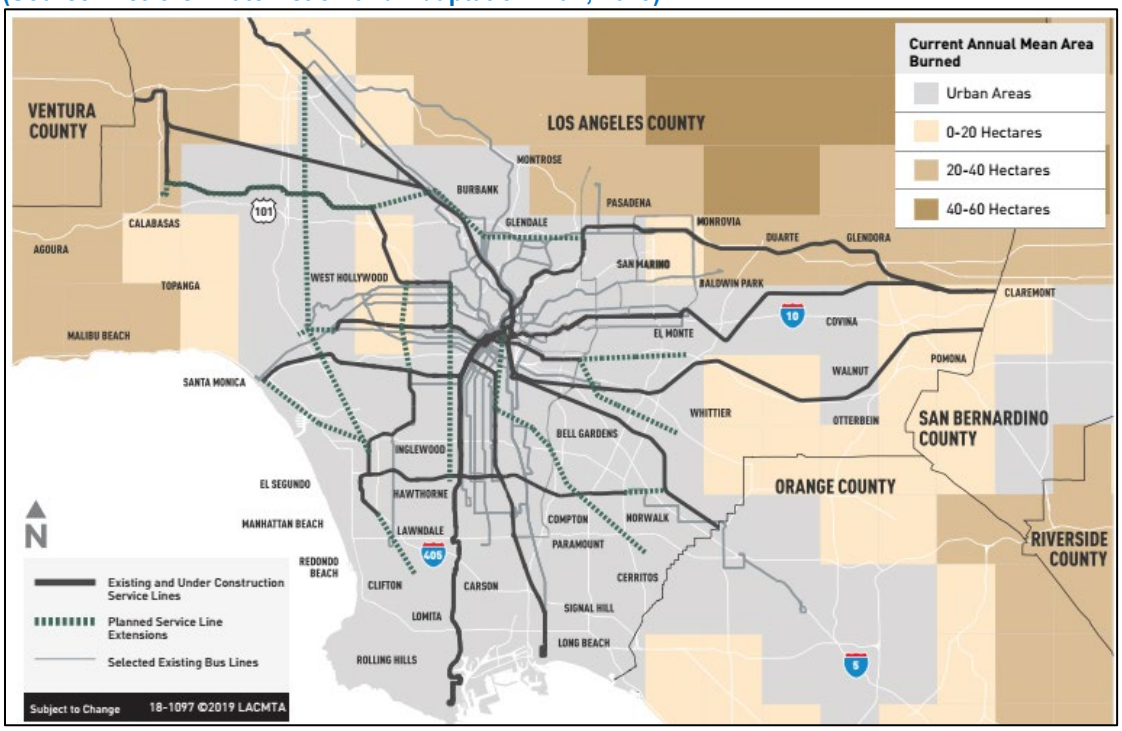


Map: Metro Critical Assets Impacted by Wildfire
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**

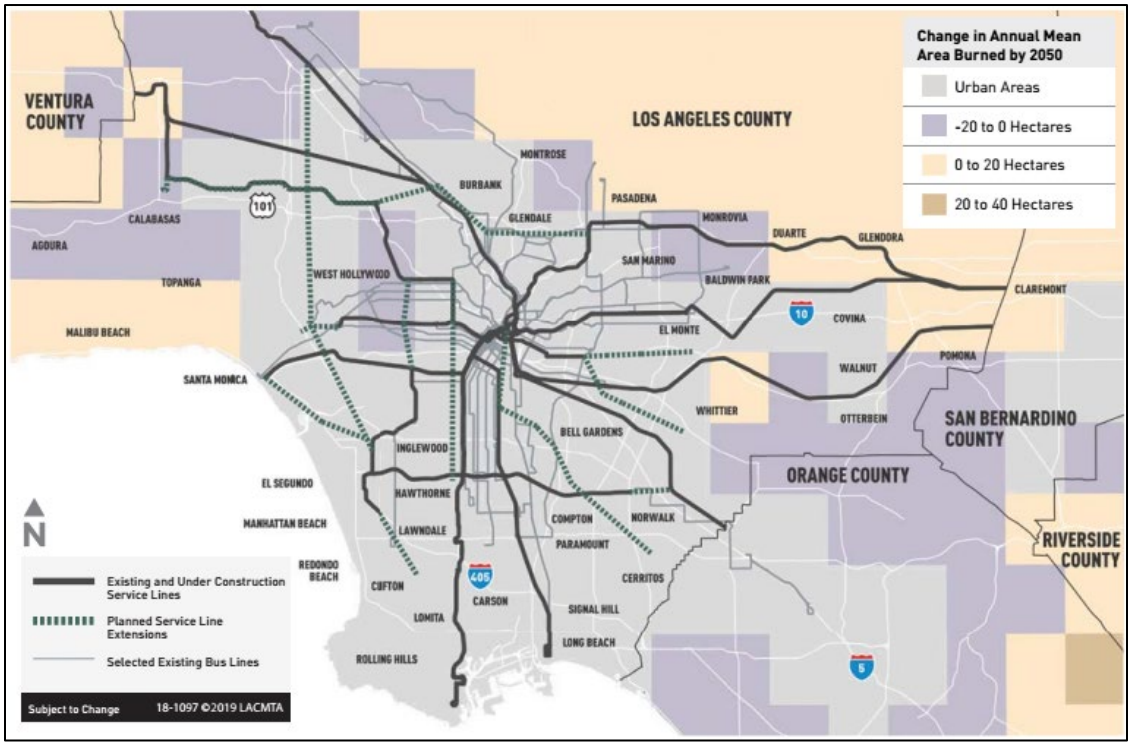


According to the Metro Climate Action and Adaptation Plan (2019), wildfires pose high risks to the northern and eastern parts of the rail system. Wildfires can cause costly damage to light rail infrastructure by melting catenary lines, burning sensitive equipment and damaging trackwork. Most parts of the rail system are not highly exposed to wildfire, but the parts that are exposed are at high risk. Wildfire impacts to bus routes are more limited. Roads might close due to wildfires, forcing buses to reroute, but these disruptions are typically temporary. Wildfires can also damage buildings and impact air quality, creating safety and health hazards for passengers, operators and staff.

Map: Current Wildfire Exposure to Metro Service Lines
(Source: Metro Climate Action and Adaptation Plan, 2019)



Map: Projected Wildfire Exposure to Metro Service Lines
(Source: Metro Climate Action and Adaptation Plan, 2019)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.
Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii)) **A:** See **Impact of Wildfire in the Metro Service Area** below.

Impact of Wildfire in the Metro Service Area

Wildfires and their impact vary by location and severity of any given wildfire event. Based on the risk assessment, it is evident that wildfires will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but anticipated in future events include:

- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

Landslide Hazards

Hazard Definition

A landslide is defined as the movement of a mass of rock, debris, or earth movement down a slope. Landslides are a type of "mass wasting" which denotes any down slope movement of soil and rock under the direct influence of gravity. The term "landslide" encompasses events such as rock falls, topples, slides, spreads, and flows. Landslides are initiated by rainfall, earthquakes, volcanic activity, changes in groundwater, disturbance and change of a slope by human-caused construction activities, or any combination of these factors. Landslides also occur underwater, causing tidal waves and damage to coastal areas. These landslides are called submarine landslides.

Photo: 2007 landslide in La Jolla, California
Source: Pam Irvine, USGS

Caption: This event occurred on October 4, 2007 in La Jolla, California. A landslide, perhaps first indicated in July by cracks appearing in pavement and homes along Soledad Mountain Road, struck suddenly when a massive slab of hillside broke loose, sending tons of dirt cascading toward streets below.

Landslide Characteristics

Landslides are a serious geologic hazard in almost every state in America. Nationally, landslides cause 25 to 50 deaths each year. The best estimate of direct and indirect costs of landslide damage in the United States range between $1 and $2 billion annually. As a seismically active region, California has a significant number of locations impacted by landslides. Some landslides result in private property damage, other landslides impact transportation corridors, fuel and energy conduits, and communication facilities. They can also pose a serious threat to human life.

Landslides can be broken down into two categories: 1) rapidly moving (generally known as debris flows), and 2) slow moving. Rapidly moving landslides or debris flows present the greatest risk to human life, and people living in or traveling through areas prone to rapidly moving landslides, are at increased risk of serious injury. Slow moving landslides can cause significant property damage but are less likely to result in serious human injuries.

The primary effects of mudslides/landslides include abrupt depression and lateral displacement of hillside surfaces over distances of up to several hundreds of feet, disruption of surface drainage, blockage of flood control channels and roadways, displacement or destruction of improvements such as roadways, buildings, and water wells.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.
Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Previous Occurrences of Landslides in the Metro Service Area** below.

Previous Occurrences of Landslides in the Metro Service Area

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), landslides in Los Angeles are generally trigged by intense and/or prolonged rainfall but can also occur after an earthquake. Notable recent landslides in Los Angeles County include:

Photo: Landslide in Pacific Palisades
Source: USGS

Caption: The 1994 Northridge Earthquake caused the coastal bluff under this home in Pacific Palisades to undergo a landslide, causing half the home to be torn and fall down the slope.

Table: Landslides in Los Angeles County Since 1928
(Source: County of Los Angeles AHMP, 2019)

Date	Description
January 2019	Cost, unknown. Sections of the Pacific Coast Highway near the Ventura County line were closed due to mudslides.
December 2018	Cost, unknown. Heavy rain on the Woolsey Fire burned hillsides created debris flows and mudslides in and around Malibu causing several road closures
January 2018	Cost, unknown. A hillside in Malibu gave way leaving a house uninhabitable.
March 2005	Cost, unknown. A slide near Sunset Mesa caused 20,000 cubic yards of debris to cover the Pacific Coast Highway.
March 1995 Los Angeles and Ventura Counties	Cost, unknown. Above normal rainfall triggered damaging debris flows, deep-seated landslides, and flooding. Several deep-seated landslides were triggered by the storms, the most notable was the La Conchita landslide, which in combination with a local debris flow, destroyed or badly damaged 11 to 12 homes in the small town of La Conchita, about 20 km west of Ventura. There also was widespread debris-flow and flood damage to homes, commercial buildings, and roads and highways in areas along the Malibu coast that had been devastated by wildfire two years before.
1994 Northridge Earthquake Landslides	Cost, unknown. As a result of the M6.7 Northridge Earthquake, more than 11,000 landslides occurred over an area of 10,000 km^2. Most were in the Santa Susana Mountains and in mountains north of the Santa Clara River Valley. Destroyed dozens of homes, blocked roads, and damaged oil-field infrastructure. Caused deaths from Coccidioidomycosis (valley fever) the spore of which was released from the soil and blown toward the coastal populated areas. The spore was released from the soil by the landslide activity.
1983 Big Rock Mesa	Cost, $706 million (2000 Dollars) in legal claims, condemnation of 13 houses, and 300 more threatened rockslide caused by rainfall.
1980 Southern California Slides	Cost, $1.1 billion in damage (2000 Dollars). Heavy winter rainfall in 1979-90 caused damage in six Southern California counties. In 1980, the rainstorm started on February 8. A sequence of 5 days of continuous rain and 7 inches of precipitation had occurred by February 14. Slope failures were beginning to develop by February 15 and then very high-intensity rainfall occurred on February 16. As much as eight inches of rain fell in a six-hour period in many locations. Records and personal observations in the field on February 16 and 17 showed that the mountains and slopes literally fell apart on those two days.
1979 Big Rock	Cost, $1.08 billion (2000 Dollars). California Highway 1 rockslide.
1977-1980 Monterey Park, Repetto Hills	Cost, $14.6 million (2000 Dollars). 100 houses damaged in 1980 due to debris flows.
1971 Juvenile Hall, San Fernando	Cost, $266.6 million (2000 Dollars). Landslides caused by the February 9, 1971, San Fernando earthquake. In addition to damaging the San Fernando Juvenile Hall, this 1.2 km-long slide damaged trunk lines of the Southern Pacific Railroad, San Fernando Boulevard, Interstate Highway 5, the Sylmar electrical converter station, and several pipelines and canals.
1971 Upper and Lower Van Norman Dams, San Fernando	Cost, $302.4 million (2000 Dollars). Earthquake-induced landslides. Damage due to the February 9, 1971, M7.5 San Fernando, Earthquake. The earthquake of February 9 severely damaged the Upper and Lower Van Norman Dams.
1970 Princess Park	Cost, $29.1 million (2000 Dollars). California Highway 14, ten miles north of Newhall, near Saugus, northern Los Angeles County.
1969 Glendora	Cost, $26.9 million (2000 Dollars). Los Angeles County, 175 houses damaged, mainly by debris flows.
1969 Seventh Avenue	Cost, $14.6 million (2000 Dollars). California Highway 60.
1963 Baldwin Hills Dam	Cost, $50 million (1963 Dollars). On December 14, the 650-foot-long by 155-foot-high earth fill dam gave way and sent 360 million gallons of water in a fifty-foot-high wall cascading onto the community below, killing five persons.
1961 Mulholland Cut	Cost, $41.5 million (2000 Dollars). On Interstate 405, 11 miles north of Santa Monica, Los Angeles County.
1958-1971 Pacific Palisades	Cost, $29.1 million (2000 Dollars). California Highway 1 and house damaged.

1956 Portuguese Bend	Cost, $14.6 million (2000 Dollars). California Highway 14, Palos Verdes Hills. Land use on the Palos Verdes Peninsula consists mostly of single-family homes built on large lots, many of which have panoramic ocean views. All of the houses were constructed with individual septic systems, generally consisting of septic tanks and seepage pits. Landslides have been active here for thousands of years, but recent landslide activity has been attributed in part to human activity. The Portuguese Bend Landslide began its modern movement in August 1956, when displacement was noticed at its northeast margin. Movement gradually extended down slope so that the entire eastern edge of the slide mass was moving within 6 weeks. By the summer of 1957, the entire slide mass was sliding towards the sea.
1928 St. Francis Dam	Cost, $672.1 million (2000 Dollars). The dam, located in Los Angeles County, gave way on March 12, and its waters swept through the Santa Clara Valley toward the Pacific Ocean, about 54 miles away. Sixty-five miles of valley was devastated, and over 500 people were killed.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.

Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Local Conditions** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.

Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Local Conditions** below.

Local Conditions

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), there are 750.02 square miles (15.75%) of land in Los Angeles County located in the Classes IX and X. In the unincorporated areas of Los Angeles County, there are 577.63 square miles (18.99%) in this hazard area.

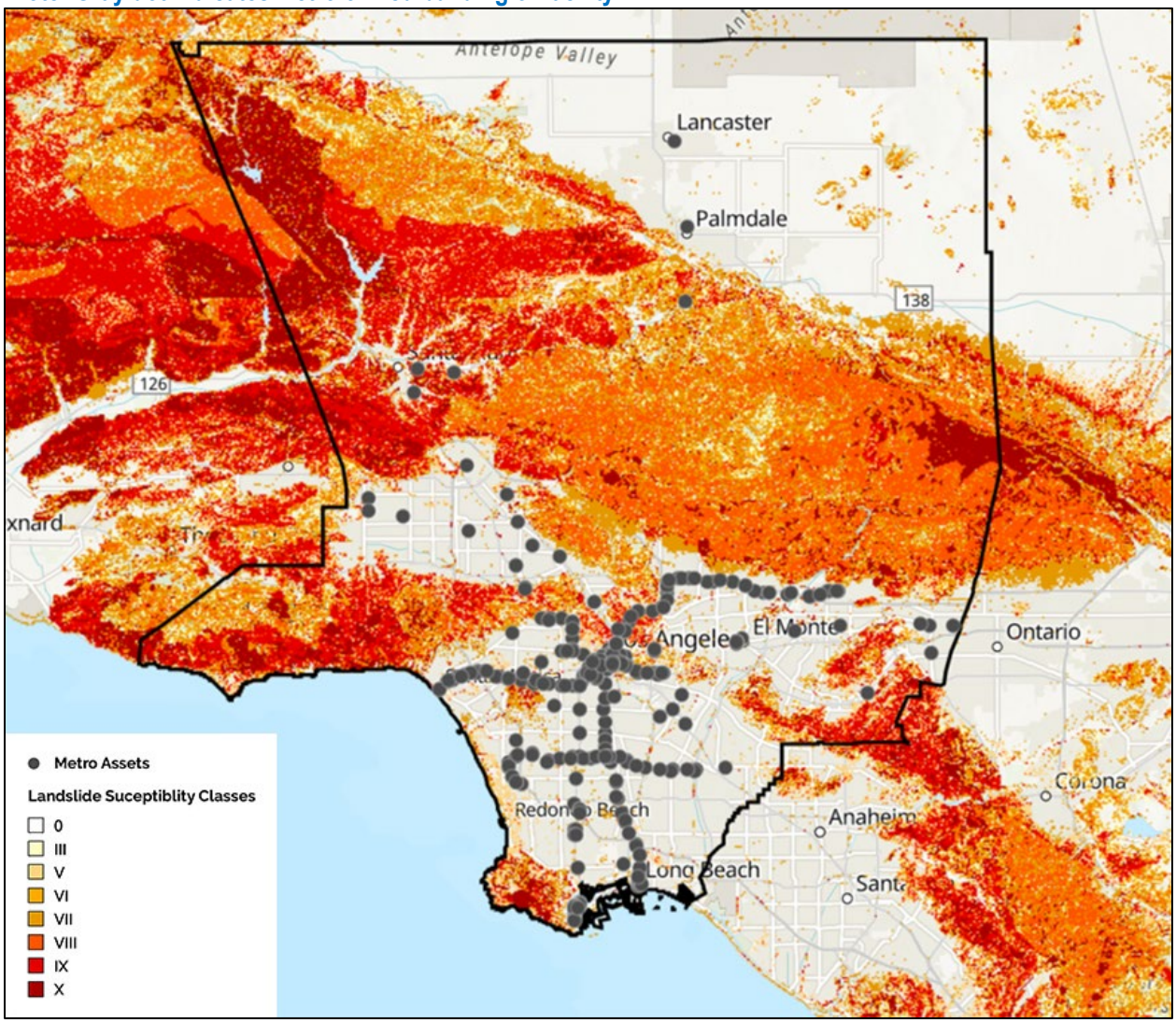
Areas prone to landslide include existing old landslides, base of slopes, base of minor drainage hollows, base or top of an old fill slope, base or top of a steep cut slope, and developed hillsides where leach field septic systems are used. In Los Angeles County, the majority of landslide-prone areas include the Santa Monica Mountains, the San Gabriel Mountains, the Sierra Pelona Mountains, the Baldwin Hills, the Puente Hills, and the Palos Verdes Hills. Landslides may: cause injury or death to those trapped; break utility lines; block/damage roadways; damage foundations, chimneys, or surrounding land; and lead to flash flooding and additional land sliding. In Los Angeles County, landslide risks are mitigated through the Hillside Management Area Ordinance and Hillside Design Guidelines.

According to the Metro Climate Action and Adaptation Plan (2019), landslides and mudslides could occur more often in the future due to increased frequency or severity of wildfires and heavy precipitation events. Almost all aspects of Metro's transportation system are sensitive to landslides, since they can block rails, damage equipment and vehicles and engulf buildings, parking lots and yards. Any of these impacts can cause service delays and require costly and extended repair. Land or mudslides can block roads and disrupt bus routes. Such disruption poses most risk to assets that lie at the foothills of mountains. Catenary lines can be particularly costly to repair or protect from landslide damage.

Photo: 2005 Landslide in Conchita, CA
Source: Mark Reid, USGS

Caption: This landslide occurred at La Conchita, California in 2005. Ten people were killed.

Map: Metro Critical Assets Impacted by Landslides
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.

Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii))
A: See **Impacts of Landslides in the Metro Service Area** below.

Impacts of Landslides in the Metro Service Area

Based on the risk assessment, it is evident that landslides will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but can be anticipated in future events, include:

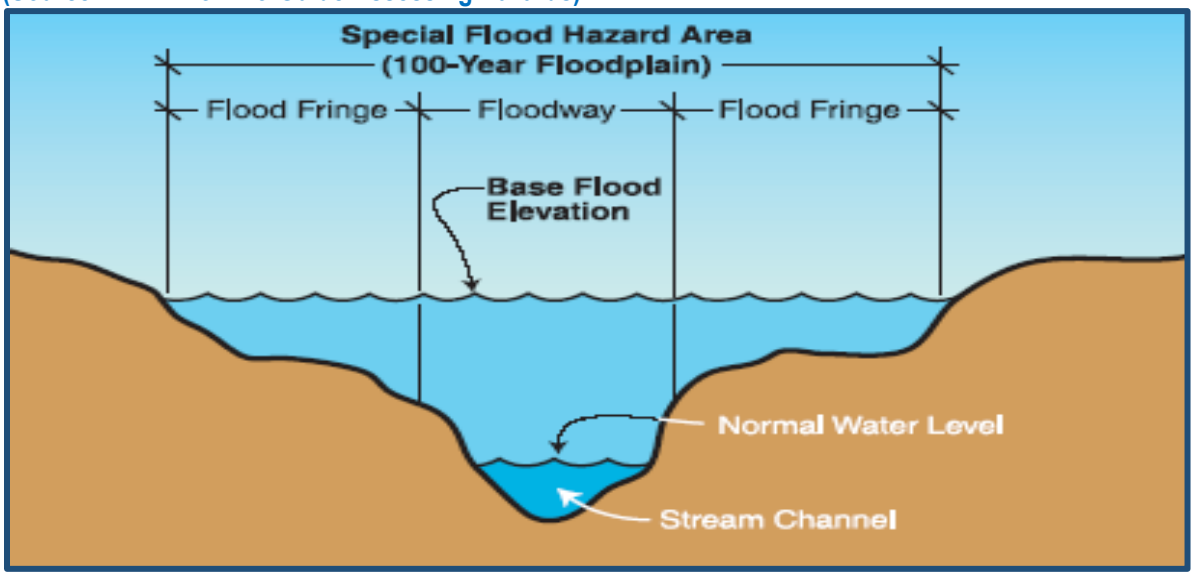
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

Flood Hazards

Hazard Definition

A floodplain is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. This area, if left undisturbed, acts to store excess flood water. The floodplain is made up of two sections: the floodway and the flood fringe. The 100-year flooding event is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood. **Schematic: Floodplain and Floodway** shows the relationship of the floodplain and the floodway.

Figure: Floodplain and Floodway
(Source: FEMA How-To-Guide Assessing Hazards)



Types of Flooding

Two types of flooding primarily affect the region: slow-rise or flash flooding. Slow-rise floods may be preceded by a warning period of hours or days. Evacuation and sandbagging for slow-rise floods have often effectively lessened flood related damage. Conversely, flash floods are most difficult to prepare for, due to extremely limited, if any, advance warning and preparation time.

Recently, sea level rise has become an increasing concern in coastal areas. See Climate Change Hazards – Sub-Hazard: Sea Level Rise for more information.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Flooding in the Metro Service Area Service Area** below.

Previous Occurrences of Flooding in the Metro Service Area

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), there have been 13 Presidential disaster declarations for flooding emergencies affecting Los Angeles County, including:

Table: Los Angeles County Presidential Declarations - Flooding
(Source: County of Los Angeles AHMP, 2019)

Date	Description
January 18, 2017-January 23, 2017	California Severe Winter Storms, Flooding, and Mudslides (DR-4305)
January 7, 1993-February 19, 1993	California Winter Storms (DR-979)
February 12 and 19, 1992	California Winter Storms (DR-935)
December 21, 1988	Coastal Storms (DR-812)
February 7 and 21, 1980	Southern California Winter Storms (DR-615)
February 15, 1978	California Winter Storms Flooding (DR-547)
August 15, 1969	California Flooding (DR-270)
February 25, 1963	California Severe Storms, Heavy Rains, Flooding (DR-145)
October 24, 1962	California Severe Storms, Flooding (DR-138)
March 6, 1962	California Floods (DR-122)
April 4, 1958	California Heavy Rainstorms, Flood (DR-82)
December 23, 1955	California Flooding (DR-47)
February 5, 1954	California Flood and Erosion (Disaster Declaration # [DR]-15)

Photo: Debris flow damage in California
Source: Susan Cannon, USGS

Caption: House damaged by debris flows generated in Mullally Canyon in response to a rainstorm on February 6, 2010. The drainage basin above this home was burned the previous summer by the Station Fire, which was the largest fire in the history of Los Angeles County at the time.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.
Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.
Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii)) **A:** See **Local Conditions** below.

Local Conditions

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), Los Angeles County has a long history of moderate to severe flooding during major storms. In the Los Angeles basin area, an extensive flood control system has eliminated much of this problem. However, in the less densely populated areas where relatively few flood controls have been constructed, flooding remains a problem. In areas with alluvial fans, flood flows discharge from the mountainous canyons in an uncontrolled manner onto the desert floor, thereby resulting in widespread damage to agricultural land, buildings, and infrastructure. In the foothill areas that experience intense rainfall, mudflows pose a risk to those downstream. Finally, along the coast, waves generated by winter storms in combination with high astronomical tides and strong winds can cause a significant wave runup, resulting in erosion and coastal flooding to low-lying portions of the shoreline. Floods

can occur at any time but are most common with winter storms packed with subtropical moisture.

Major flood sources in Los Angeles County still include Ballona Creek, Los Angeles River, Malibu Creek, Pacific Ocean, Rio Hondo River, San Gabriel River and its tributaries, Santa Clara River, Topanga Canyon, and the Pacific Ocean. In the unincorporated areas of Los Angeles County, flooding sources include:

- **Little Rock and Big Rock Washes**: Flooding occurs when the flows reach the valley floor where the channels flatten out. This allows the flows to spread over great distances, inundating the surrounding areas.

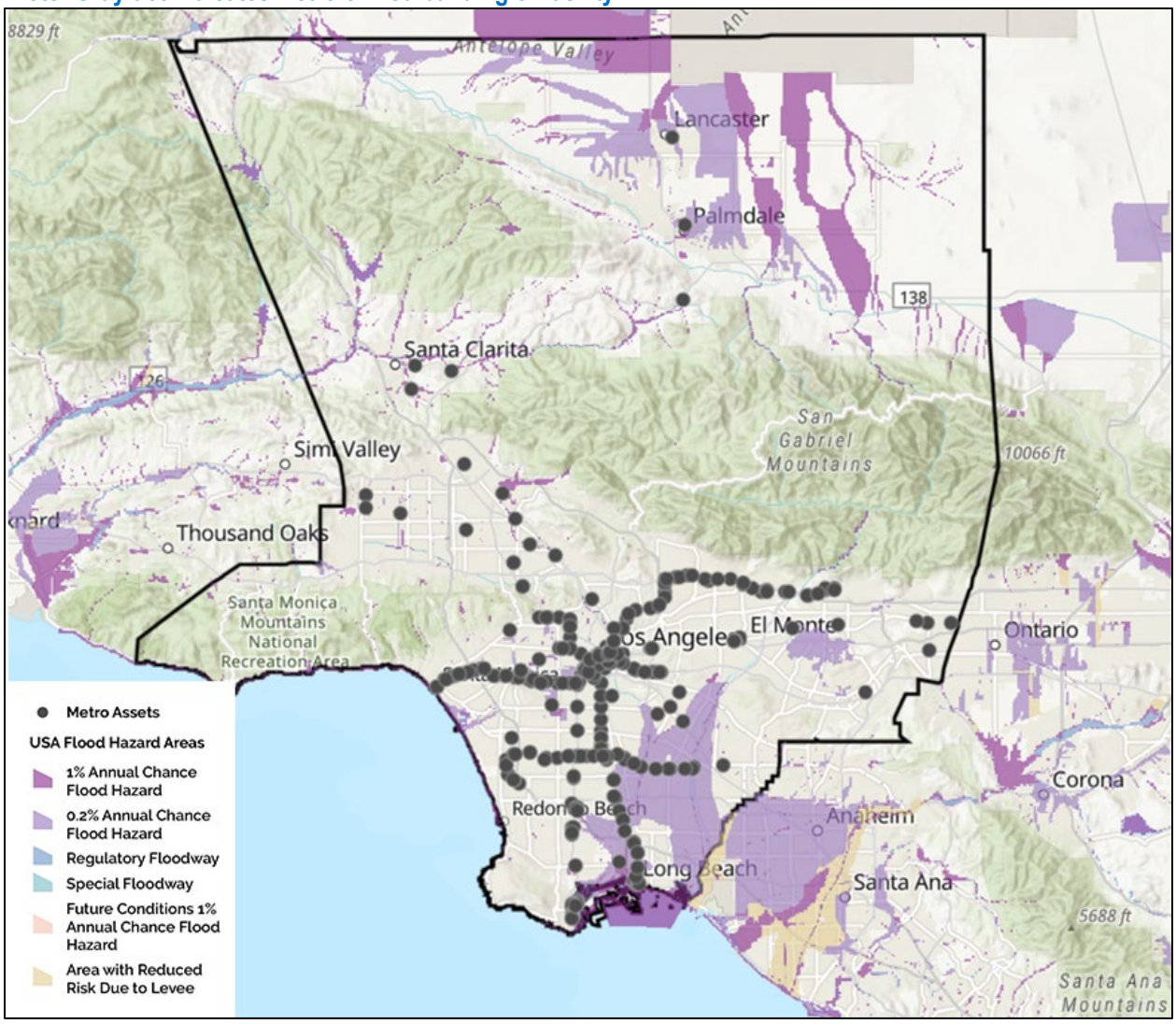
- **Antelope Valley**: Flooding occurs when flows from the mountains reach the broad alluvial plan in the Antelope Valley are northerly from the mountains across the broad alluvial plain. During minor storms, much of the flow percolates into the ground. In major storms, flows reach the lake at the northern county limits, where flood flows pond until evaporated.

- **Foothills of Santa Clarita**: Flooding and mudflows occur in the foothill areas during intense rainfall, usually following fires in the upstream watershed.

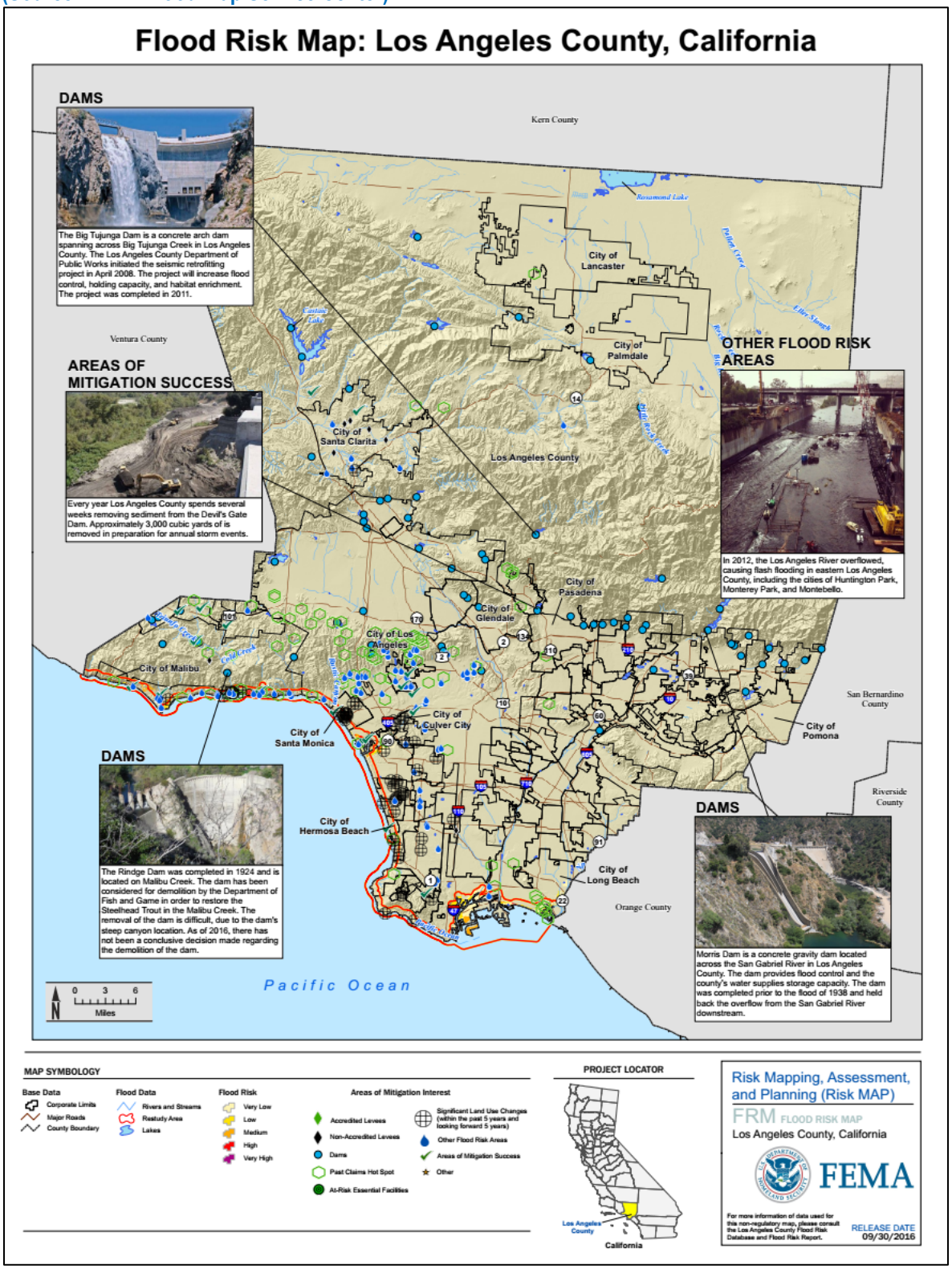
- **Coastline**: Flooding is caused by waves generated by winter storms. The occurrence of such a storm event in combination with high astronomical tides and strong winds can cause a significant wave runup and allow storm waves to reach higher than normal elevations along the coastline.

The Los Angeles County Digital Flood Insurance Rate Map (DFIRM) identifies 4.19 square miles (0.09%) with a 1% annual chance of flooding, and 243.32 square miles (5.11%) with a 0.2% annual chance of flooding. In the unincorporated areas of Los Angeles County, there are 1.23 square miles (0.04%) with a 1% annual chance of flooding, and an additional 64.77 square miles (2.13 %) with a 0.2% annual chance of flooding.

Map: Metro Critical Assets Impacted by Flooding
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



Map: Flood Risk Map - Los Angeles County, California
(Source: FEMA Flood Map Service Center)



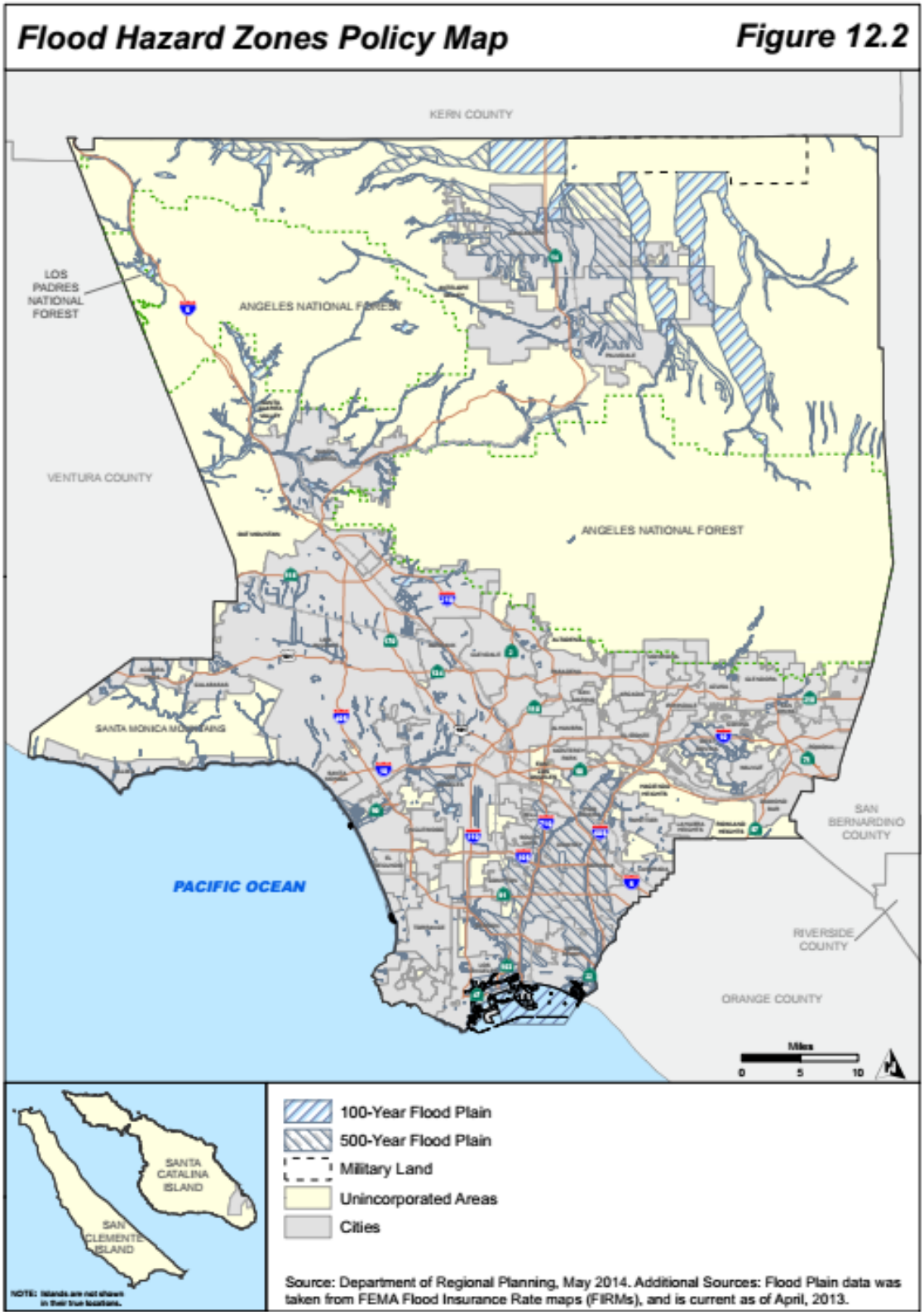
Q&A | ELEMENT C. MITIGATION STRATEGY | C2
Q: Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii)) **A:** See **NFIP Participation** below.

National Flood Insurance Program

The County of Los Angeles participate in the National Flood Insurance Program (NFIP). Created by Congress in 1968, the NFIP makes flood insurance available in communities that enact minimum floodplain management rules consistent with the Code of Federal Regulations §60.3.

According to FEMA, Metro's service area includes a broad range of flood zone designations. The County of Los Angeles All Hazards Mitigation Plan identifies that the Los Angeles County DFIRM identifies 4.19 square miles (0.09%) with a 1% annual chance of flooding (100-year floodplain), and 243.32 square miles (5.11%) with a 0.2% annual chance of flooding (500-year floodplain). These areas are highlighted below in **Map: Flood Hazard Zones** from the Los Angeles County General Plan, 2015.

Map: Flood Hazard Zones
(Source: Los Angeles County General Plan, 2015)



Definitions of FEMA Flood Zone Designations

Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
B and X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	Area of minimal flood hazard usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
A1-30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.

ZONE	DESCRIPTION
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

Undetermined Risk Areas

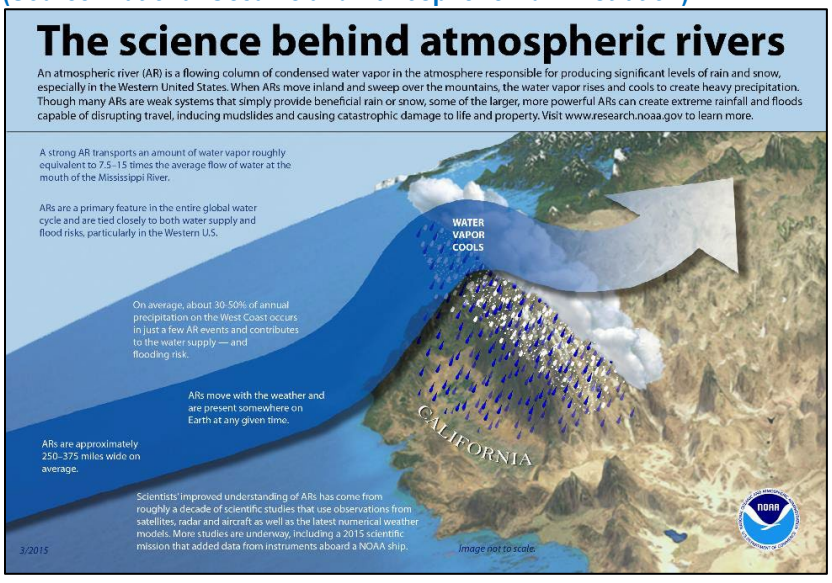
ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Atmospheric Rivers

According to the National Oceanic and Atmospheric Administration (NOAA), atmospheric rivers are relatively long, narrow regions in the atmosphere – like rivers in the sky – that transport most of the water vapor outside of the tropics. These columns of vapor move with the weather, carrying an amount of water vapor roughly equivalent to the average flow of water at the mouth of the Mississippi River. When the atmospheric rivers make landfall, they often release this water vapor in the form of rain or snow.

Although atmospheric rivers come in many shapes and sizes, those that contain the largest amounts of water vapor and the strongest winds can create extreme rainfall and floods, often by stalling over watersheds vulnerable to flooding. These events can disrupt travel, induce mudslides and cause catastrophic damage to life and property. A well-known example is the "Pineapple Express," a strong atmospheric river that is capable of bringing moisture from the tropics near Hawaii over to the U.S. West Coast.

Graphic: Atmospheric Rivers
(Source: National Oceanic and Atmospheric Administration)



While atmospheric rivers are responsible for great quantities of rain that can produce flooding, they also contribute to beneficial increases in snowpack. A series of atmospheric rivers fueled the strong winter storms that battered the U.S. West Coast from western Washington to southern California from December 10–22, 2010, producing 11 to 25 inches of rain in certain areas. These rivers also contributed to the snowpack in the Sierras, which received 75 percent of its annual snow by December 22, the first full day of winter.

NOAA research (e.g., NOAA Hydrometeorological Testbed and Cal Water) uses satellite, radar, aircraft and other observations, as well as major numerical weather model improvements, to better understand atmospheric rivers and their importance to both weather and climate.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.

Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii))
A: See **Impact of Flooding in the Metro Service Area** below.

Impact of Flooding in the Metro Service Area

Floods and their impacts vary by location and severity of any given flood event, and likely only affect certain areas of the region during specific times. Based on the risk assessment, it is evident that floods will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but anticipated in future events include:

- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

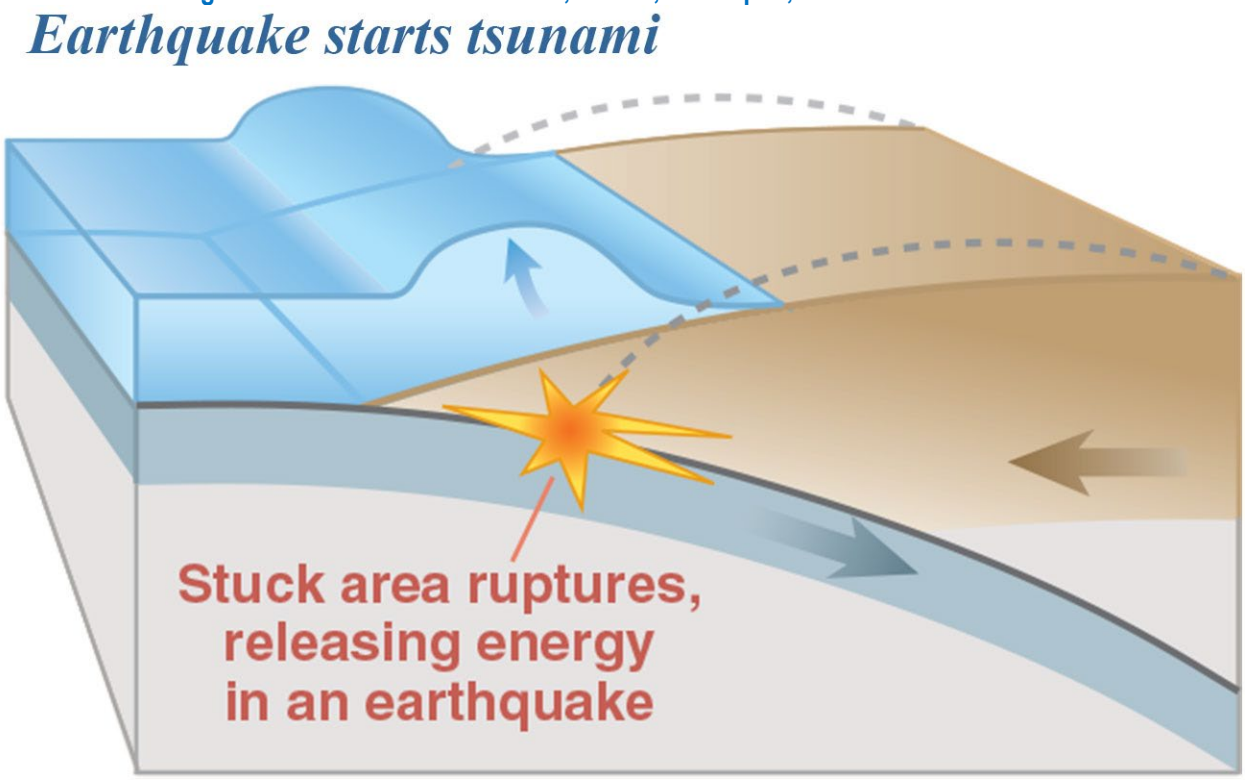
Tsunami Hazards

Hazard Definition

According to the Intergovernmental Oceanographic Commission brochure titled "Tsunami: The Great Waves" (2012), the phenomenon we call "tsunami" (soo-NAH-mee) is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor. Underwater volcanic eruptions and landslides can also generate tsunamis. In the deep ocean, the tsunami waves move with a speed exceeding 500 miles per hour, and a wave height of only a few inches. Tsunami waves are distinguished from ordinary ocean waves by their great length between wave crests, often exceeding 60 miles or more in the deep ocean, and by the time between these crests, ranging from 10 minutes to an hour.

As they reach the shallow waters of the coast, the waves slow down and the water can pile up into a wall of destruction up to 30 feet or more in height. The effect can be amplified where a bay, harbor or lagoon funnels the wave as it moves inland. Large tsunamis have been known to rise over 100 feet. Even a tsunami 1-3 feet high can inflict destructive damage and cause many deaths and injuries.

Infographic: Earthquake Starts Tsunami
Source: "Surviving a tsunami: lessons from Chile, Hawaii, and Japan; USGS Circular 1187"



Caption: An earthquake along a subduction zone happens when the leading edge of the overriding plate breaks free and springs seaward, raising the sea floor and the water above it. This uplift starts a tsunami. Meanwhile, the bulge behind the leading edge collapses, thinning the plate and lowering coastal areas.

Earthquakes and Tsunamis

An earthquake can be caused by volcanic activity, but most are generated by movements along fault zones associated with the plate boundaries. Most strong earthquakes, representing 80% of the total energy released worldwide by earthquakes, occur in subduction zones where an oceanic plate slides under a continental plate or another younger oceanic plate.

Not all earthquakes generate tsunamis. To generate a tsunami, the fault where the earthquake occurs must be underneath or near the ocean and cause vertical movement of the sea floor over a large area, hundreds or thousands of square miles. “By far, the most destructive tsunamis are generated from large, shallow earthquakes with an epicenter or fault line near or on the ocean floor.” The amount of vertical and horizontal motion of the sea floor, the area over which it occurs, the simultaneous occurrence of slumping of underwater sediments due to the shaking, and the efficiency with which energy is transferred from the earth’s crust to the ocean water are all part of the tsunami generation mechanism. The sudden vertical displacements over such large areas, disturb the ocean's surface, displace water, and generate destructive tsunami waves.

Photo: Tsunami in Indonesia
Source: Antara Foto, Reuters, The New York Times

Caption: A ship was stranded amid the destruction Monday after an earthquake and tsunami hit Donggala, Indonesia, near the mouth of Palu Bay on the island of Sulawesi.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Tsunami in the Metro Service Area** below.

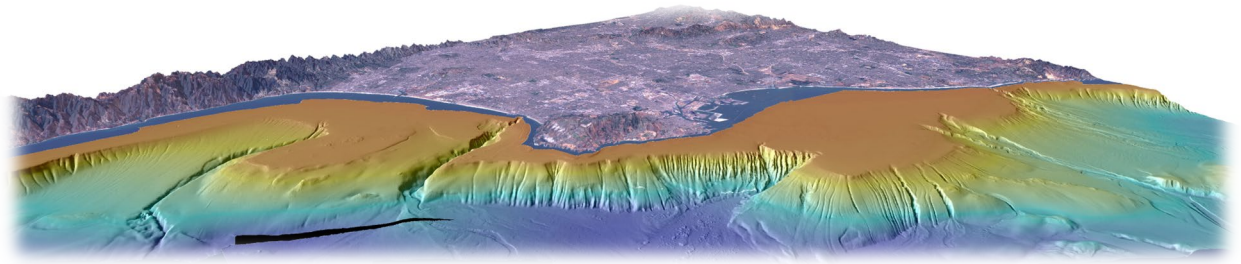
Previous Occurrences of Tsunamis in the Metro Service Area

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), eleven major tsunami events have occurred in Los Angeles County in the last century, including:

Table: Los Angeles County Tsunamis
(Source: County of Los Angeles AHMP, 2019)

Date	Locations	Maximum Run up*(m)	Earthquake Magnitude
April 13, 1923	Kamchatka	Unknown	M 7.2
August 30, 1930	Santa Monica	9 to 10 feet	N/A
April 1, 1946	Earthquake near Aleutian Islands affecting Catalina Island, Los Angeles, and Long Beach	1 to 6 feet	M 8.8
November 4, 1952	Earthquake near Kamchatka affecting Santa Monica, Los Angeles, and Long Beach	1 to 2 feet	M 9.0
March 9, 1957	Earthquake near Aleutian Islands affecting Santa Monica, Los Angeles, and Long Beach	1 to 2 feet	M 8.6
May 22, 1960	Earthquake in Chile affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	2 to 5 feet	M 9.5
March 28, 1964	Earthquake in Alaska affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	2 to 3 feet	M 9.2
November 29, 1975	Earthquake in Hawaii affecting Catalina Island	3 to 4 feet	M 8.0
September 29, 2009	Earthquake in Samoa affecting Los Angeles	1 to 2 feet	M 8.0
February 27, 2010	Earthquake in Chile affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	1 to 3 feet	M 8.8
March 11, 2011	Earthquake in Japan affecting Catalina Island, Los Angeles, Long Beach, Redondo Beach, and Santa Monica	2 to 3 feet	M 9.0

3D Illustration: Los Angeles Margin and Basin
Source: Gardner, James V., and Peter Dartnell, 2002. Multibeam Mapping of the Los Angeles, California Margin. U.S. Geological Survey)



Caption: Overall perspective view of the Los Angeles Margin and Basin looking northeast. The distance across the bottom of the image is about 100 kilometers with a vertical exaggeration of 6 times. The margin is bisected by a series of large underwater canyons, channels, and gullies. Underwater landslides occur along the steep slope off the Palos Verdes Peninsula (far right) depositing large blocks into the deeper basin.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.
Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.
Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii)) **A:** See **Local Conditions** below.

Local Conditions

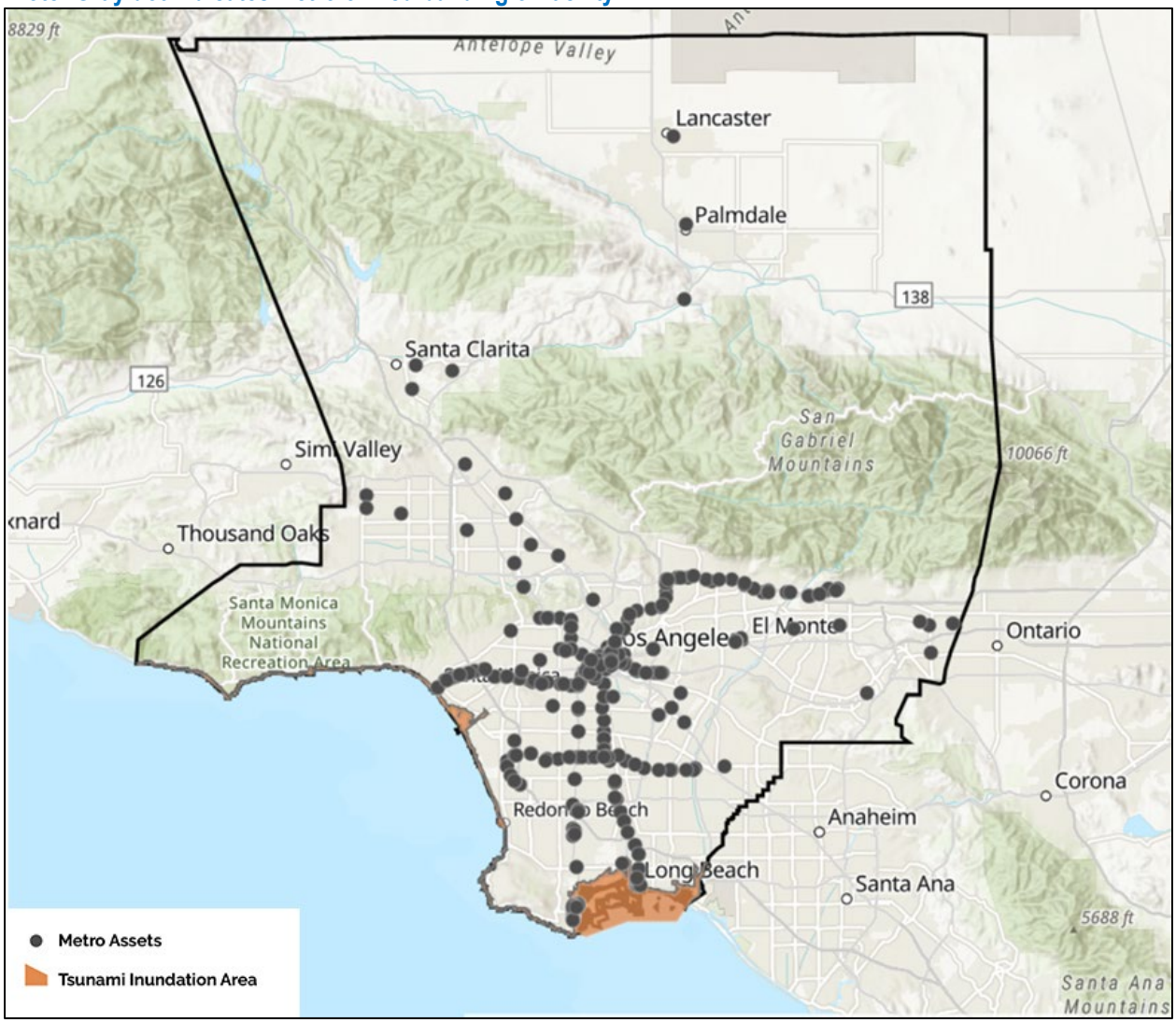
In Los Angeles County, areas at risk of maximum tsunami run up include the ports of Long Beach and Los Angeles, Catalina Island, and areas in the cities of Los Angeles, Long Beach, Manhattan Beach, Redondo Beach, Hermosa Beach, El Segundo, Palos Verdes, Santa Monica, and Malibu. In the unincorporated areas of Los Angeles County, the five coastal zones (i.e., Marin Del Rey, Santa Catalina Island, Santa Monica Mountains, San Clemente Island, and Ballona Wetlands) are subject to inundation.

In Southern California, an earthquake could trigger an underwater avalanche or submarine landslide in the Santa Monica Bay and produce a tsunami that could inundate low-lying areas of Los Angeles County. According to researchers a locally generated tsunami could bring water as high as 5 feet in Marina del Rey, 7 feet in Manhattan Beach and 11 feet in Redondo Beach. Such a tsunami could flood homes and destroy many small boats in nearby harbors, thereby creating dangerous debris.

Based on the history of tsunami run-ups in the region and the history of earthquakes in the Pacific Rim, another tsunami event is likely to occur, although the extent and probability is unknown.

Map: Metro Critical Assets Impacted by Tsunami shows the maximum considered tsunami runup from several extreme tsunami sources. According to the County of Los Angeles All-Hazards Mitigation Plan (2019), there are 43.35 square miles (0.91%) in Los Angeles County located in this hazard area. In the unincorporated areas of Los Angeles County there are 2.07 square miles (0.07%) at risk to a maximum tsunami runup.

Map: Metro Critical Assets Impacted by Tsunami
(Source: General Technologies and Solutions)
***Note: Gray dot indicates Metro owned building or facility.**



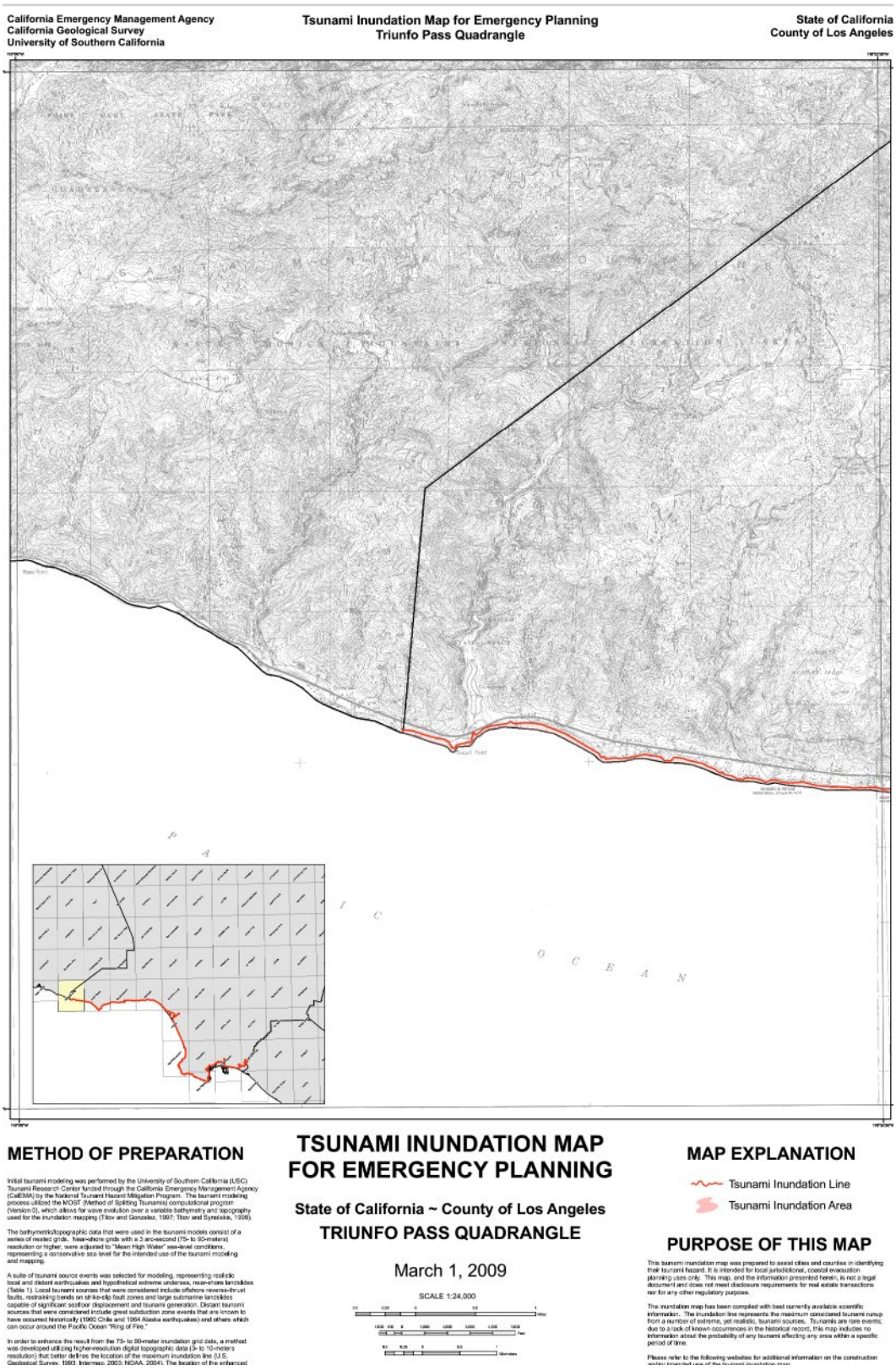
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.
Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii)) **A:** See **Impact of Tsunamis in the Metro Service Area** below.

Impact of Tsunamis in the Metro Service Area

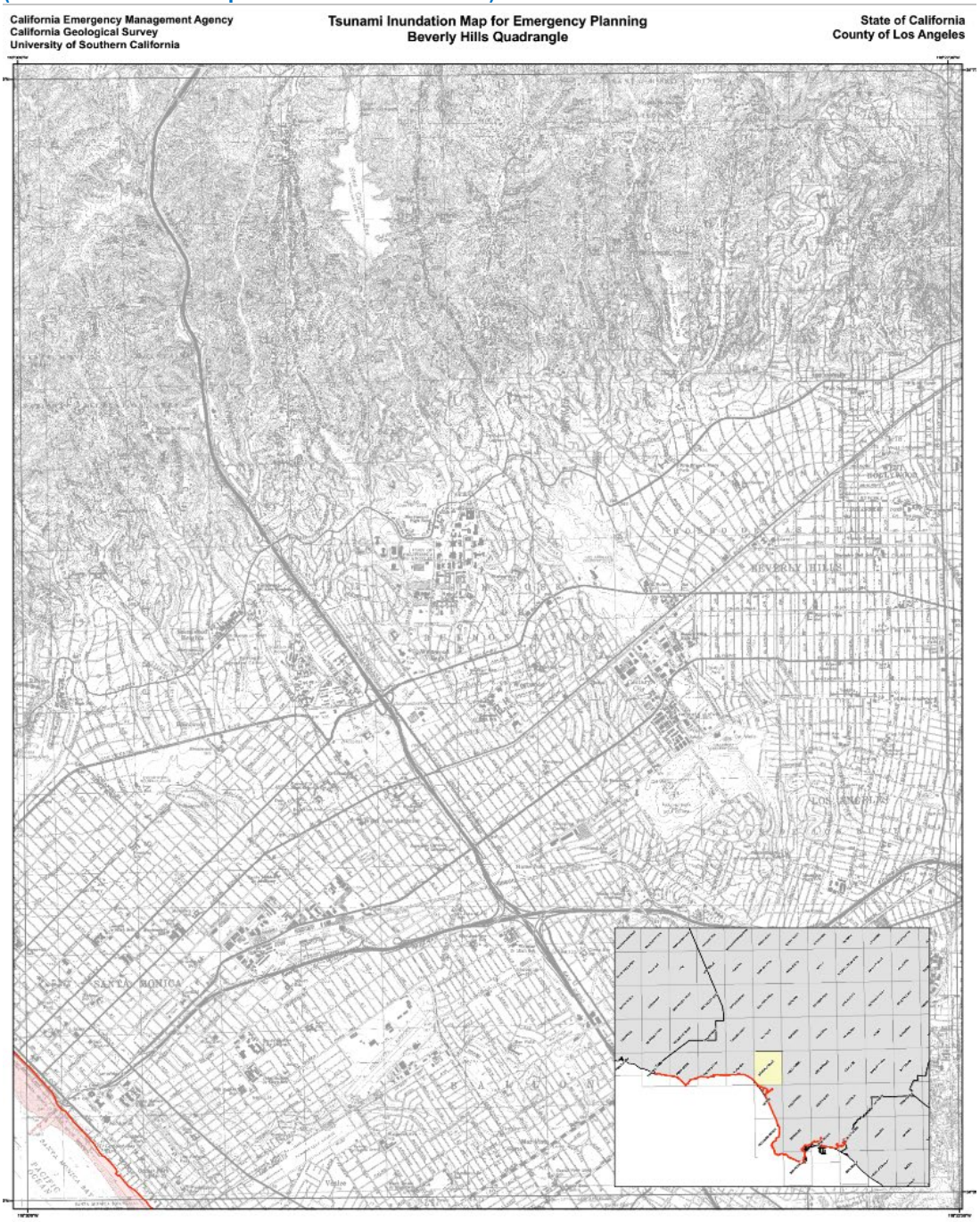
Based on the risk assessment, it is evident that tsunamis will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

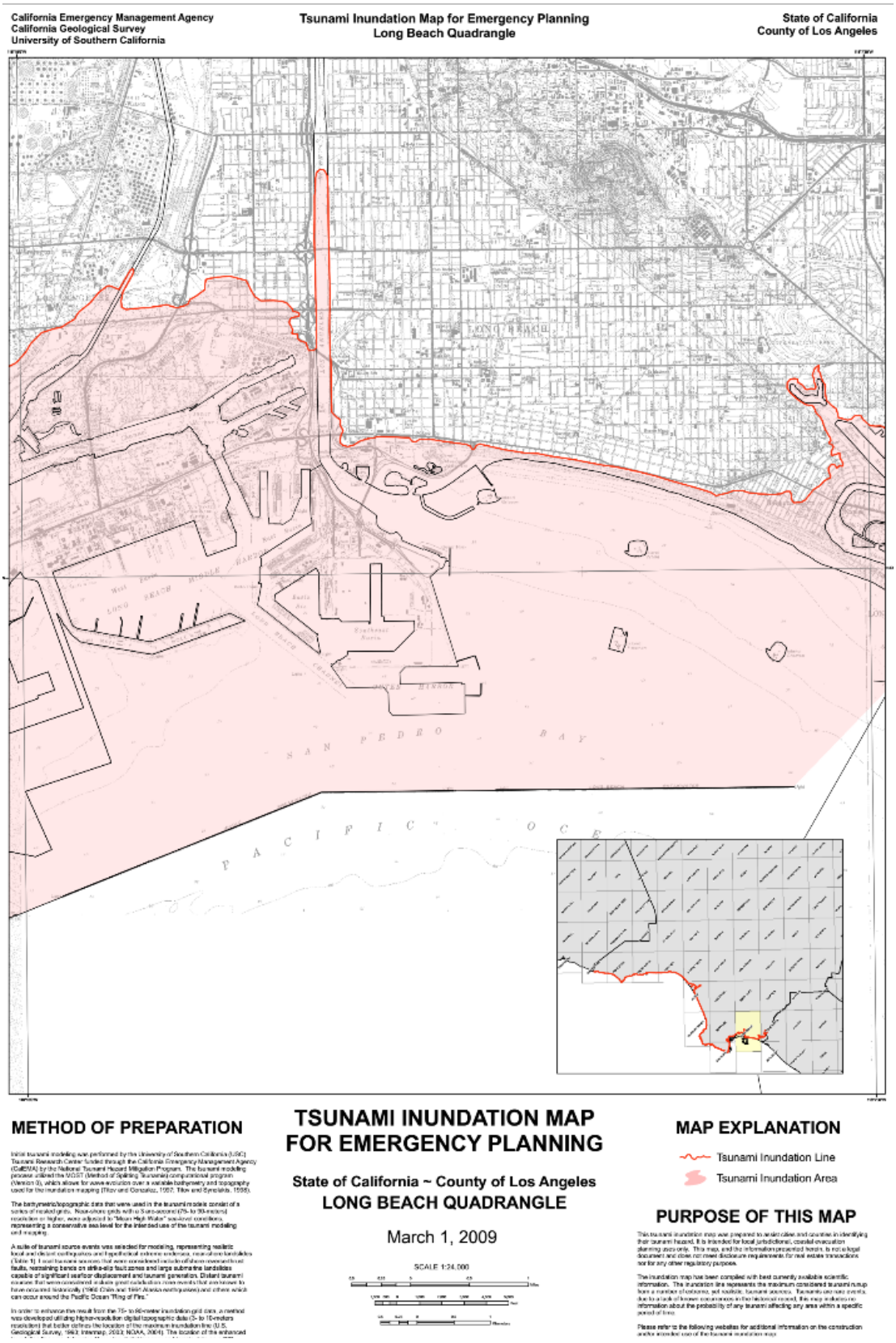
Map: Tsunami Inundation Map – Triunfo Pass Quadrangle (Source: California Department of Conservation)



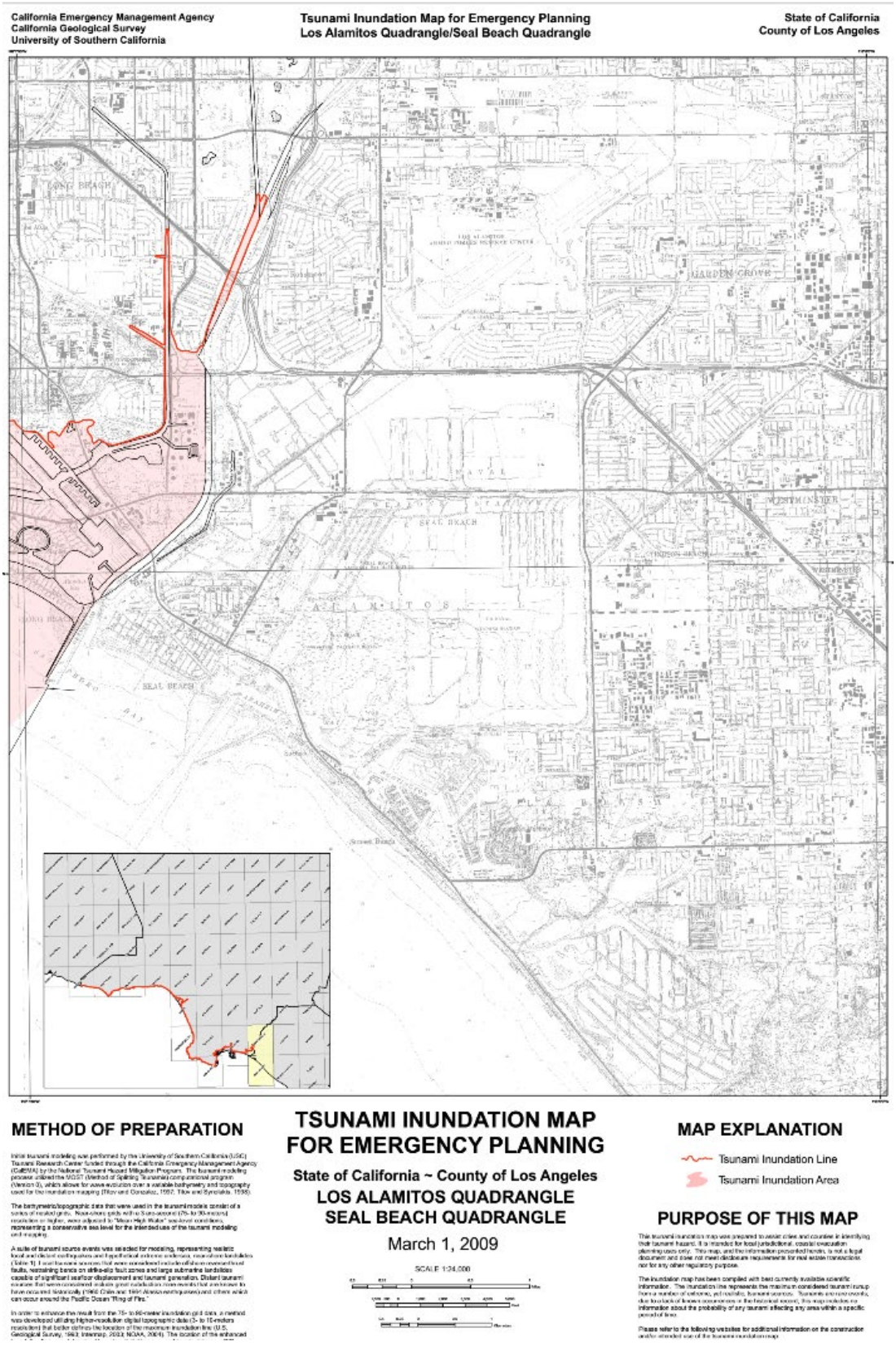
Map: Tsunami Inundation Map – Beverly Hills Quadrangle (Source: California Department of Conservation)



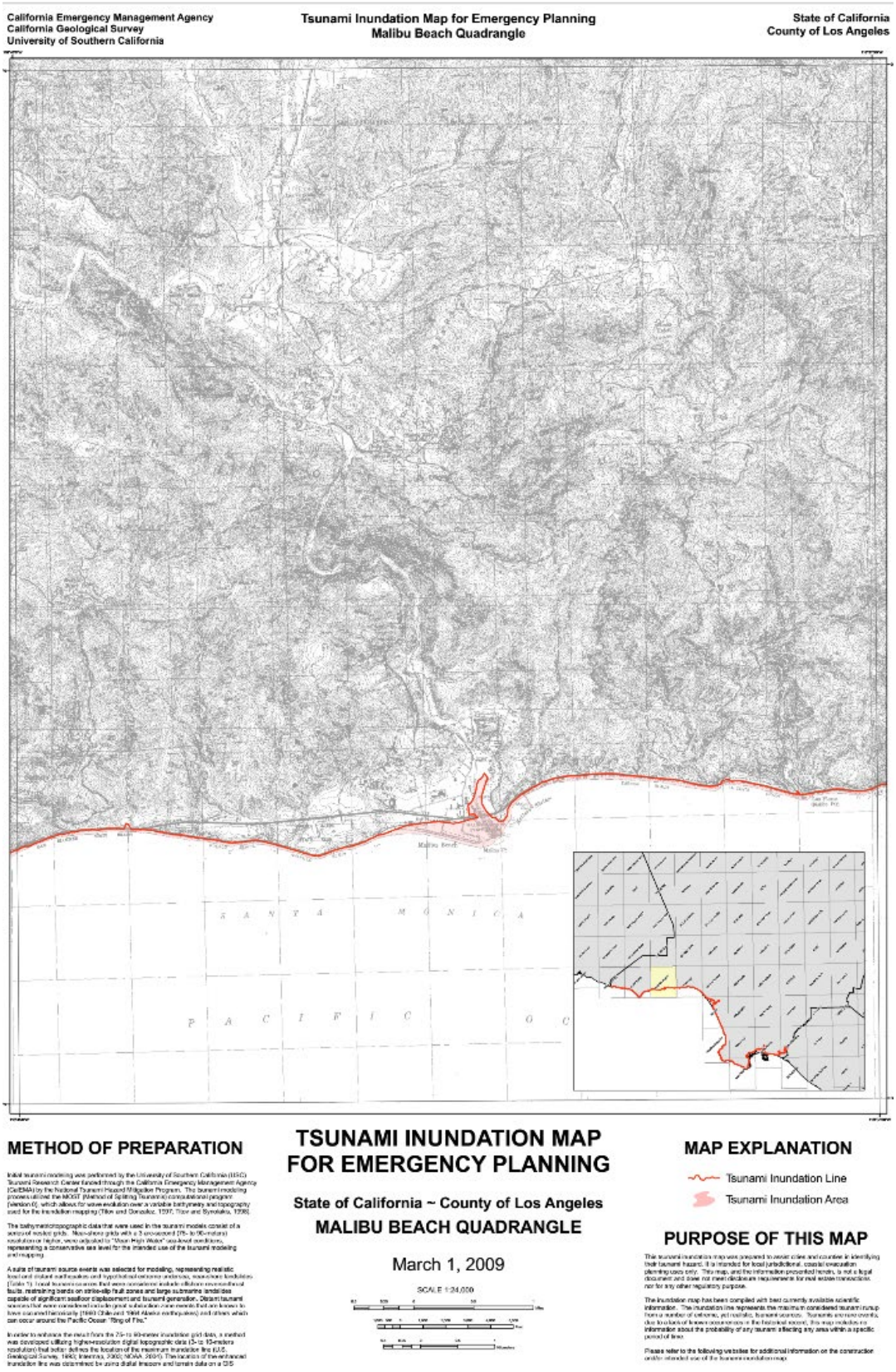
Map: Tsunami Inundation Map – Long Beach Quadrangle (Source: California Department of Conservation)



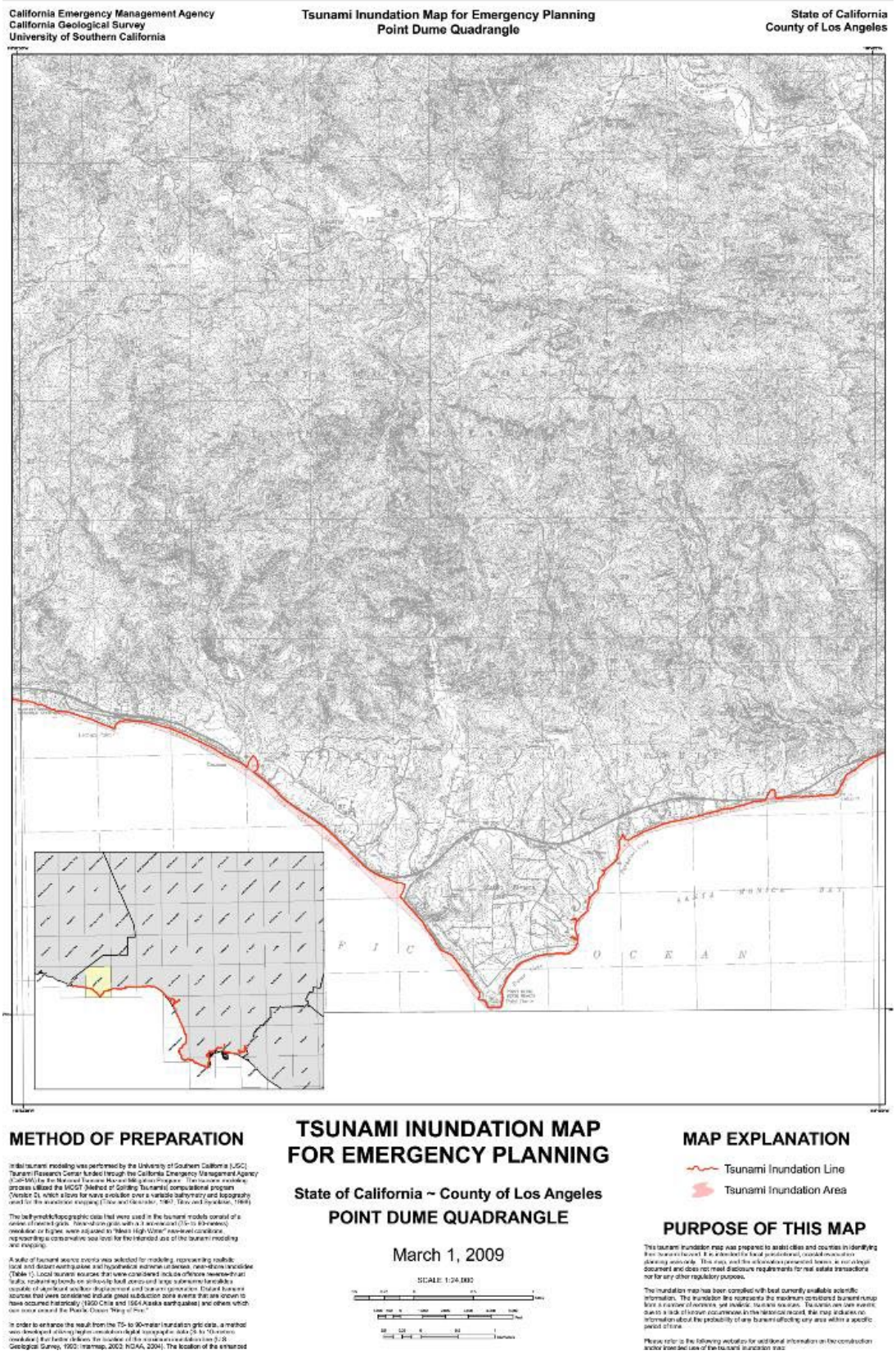
Map: Tsunami Inundation Map – Los Alamitos/Seal Beach Quadrangle (Source: California Department of Conservation)



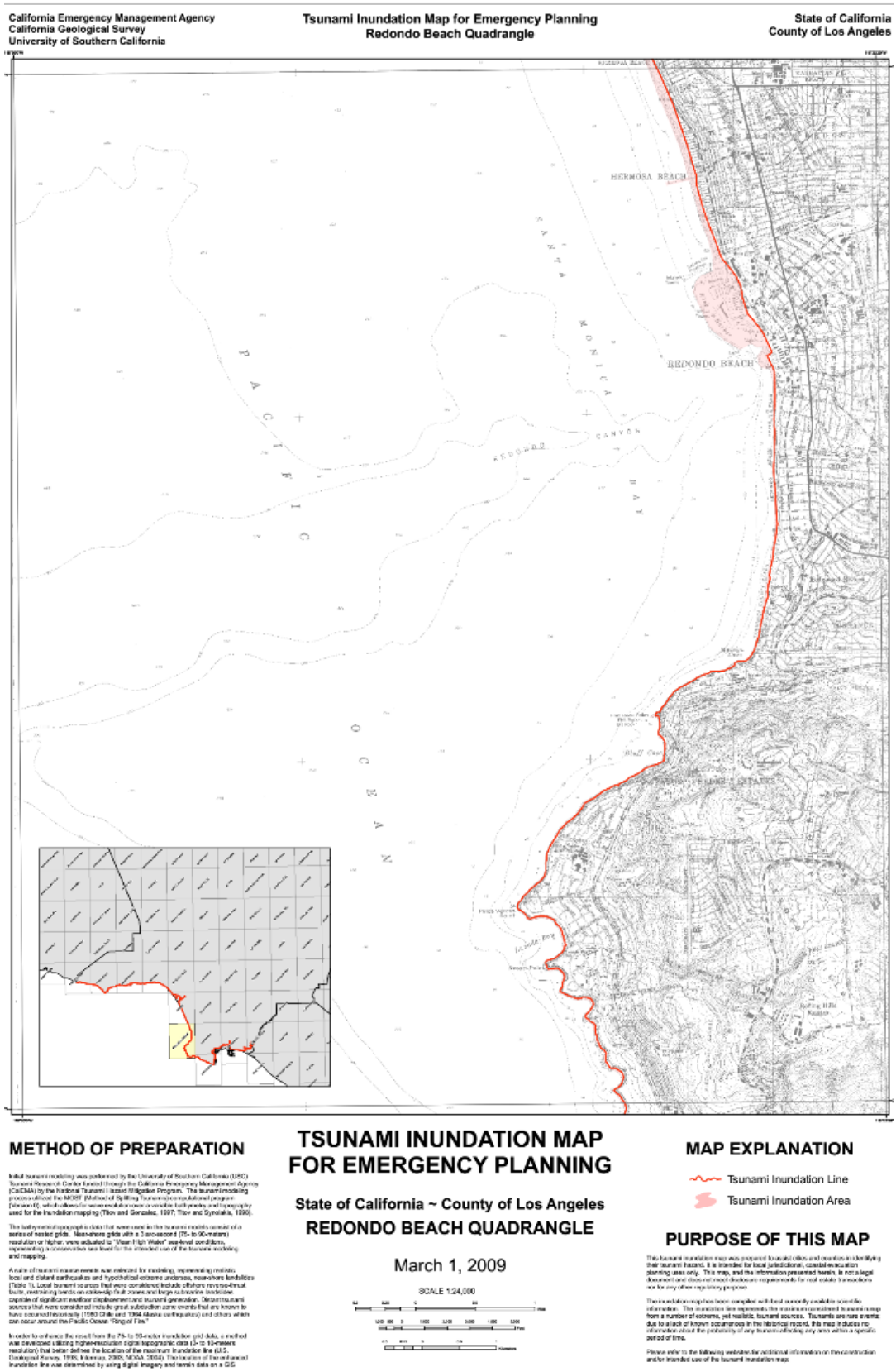
Map: Tsunami Inundation Map – Malibu Beach Quadrangle (Source: California Department of Conservation)



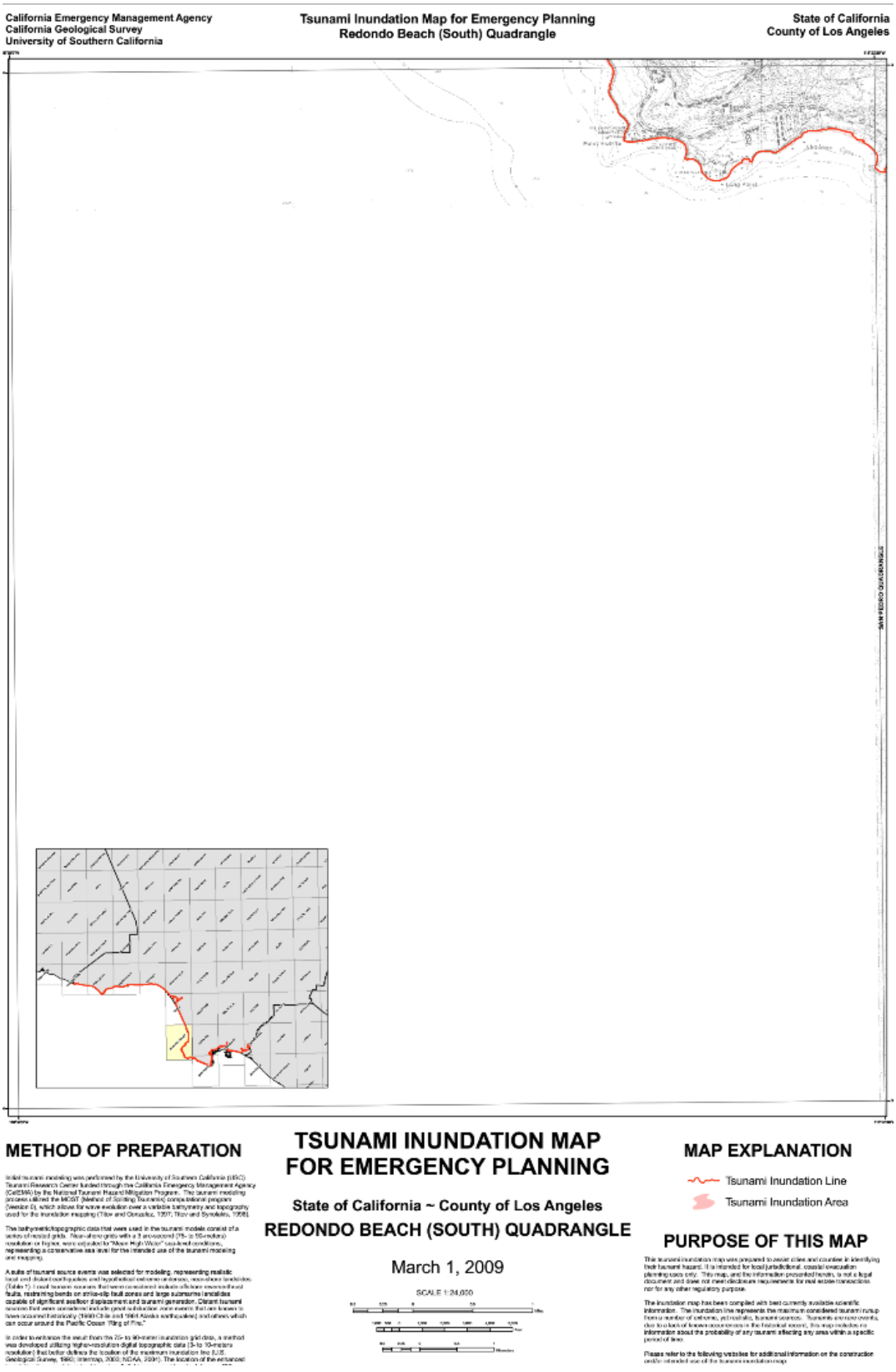
Map: Tsunami Inundation Map – Point Dume Quadrangle (Source: California Department of Conservation)



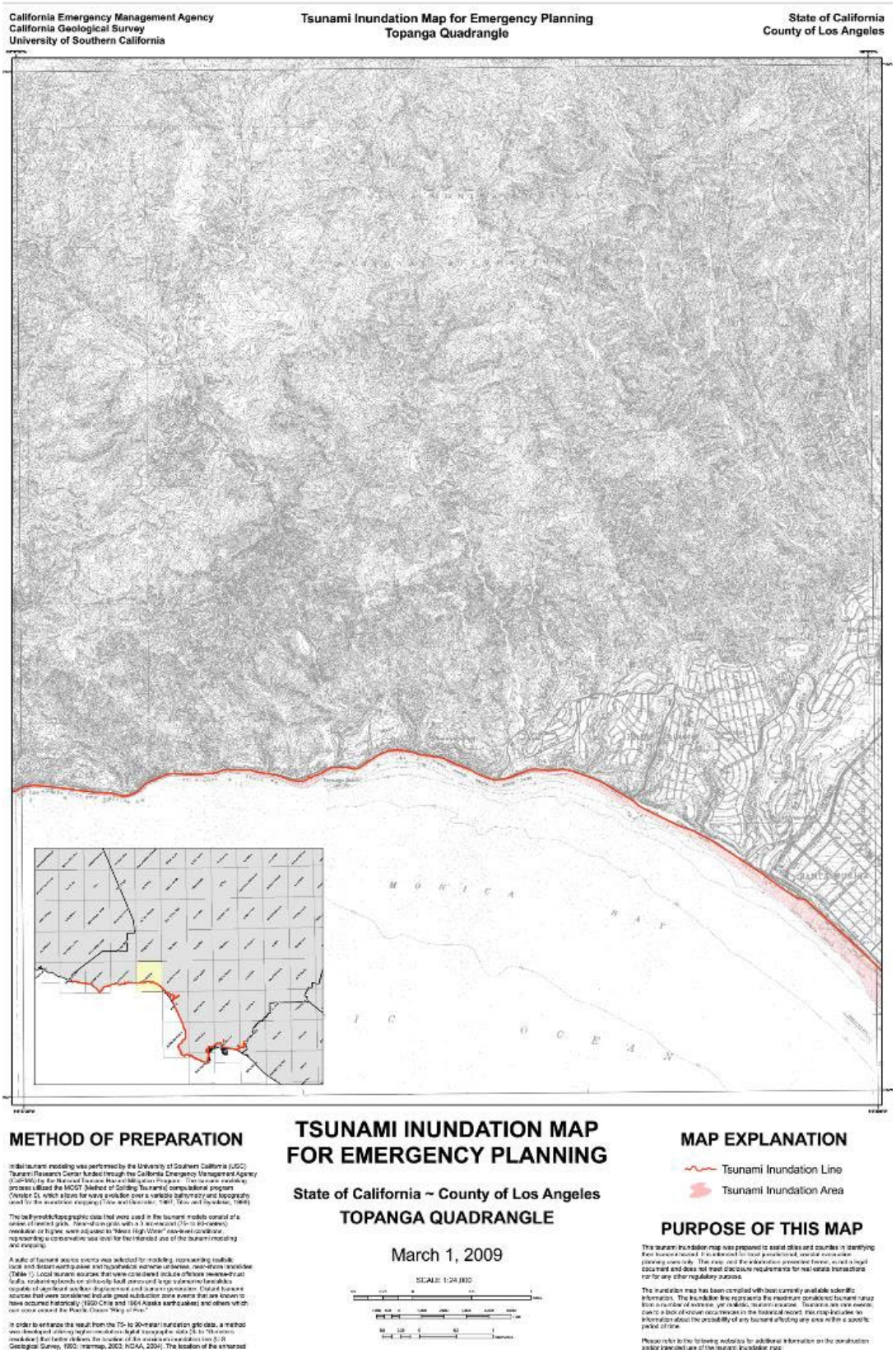
Map: Tsunami Inundation Map – Redondo Beach Quadrangle (Source: California Department of Conservation)



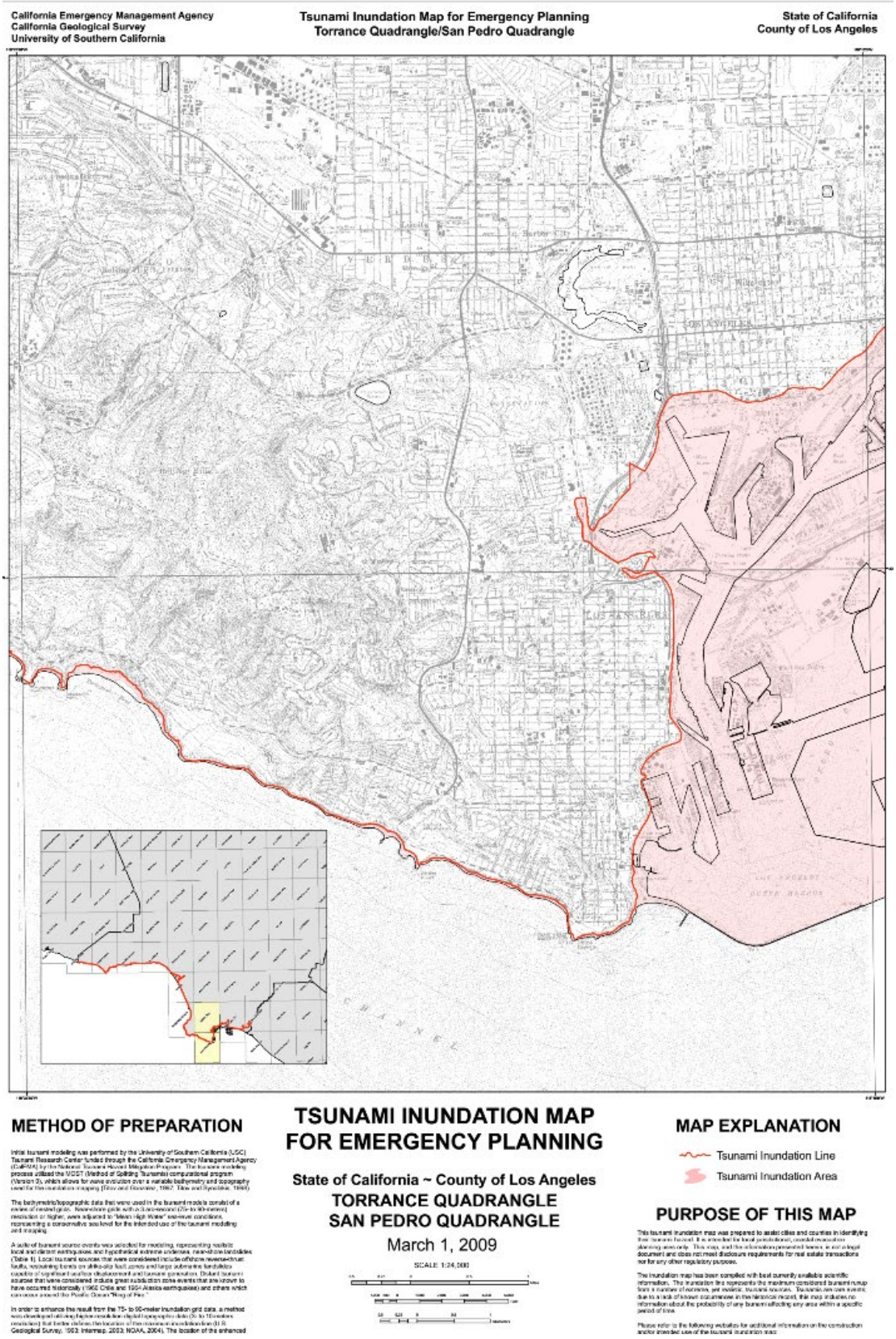
Map: Tsunami Inundation Map – Redondo Beach South Quadrangle (Source: California Department of Conservation)



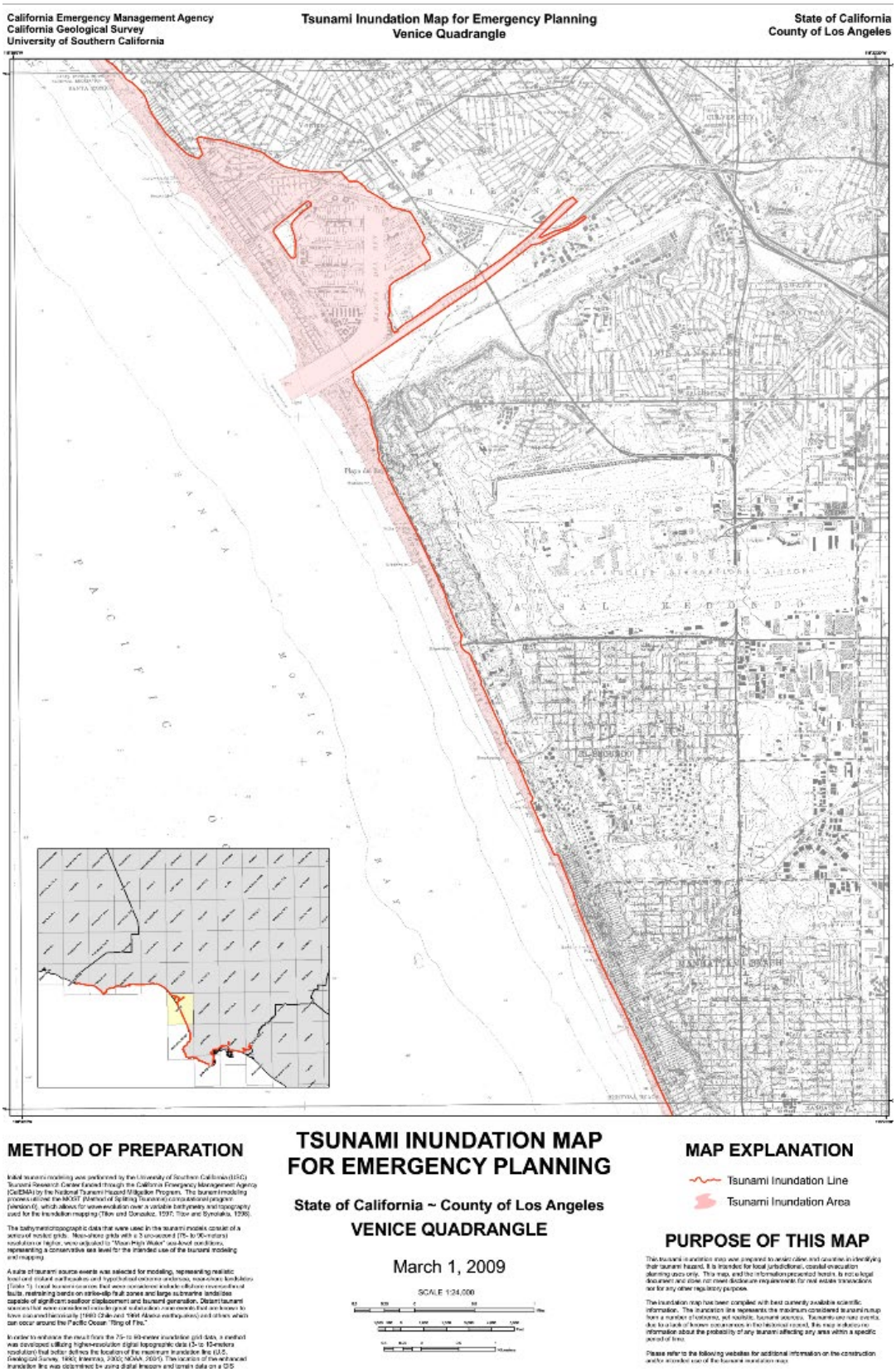
Map: Tsunami Inundation Map – Topanga Quadrangle (Source: California Department of Conservation)



Map: Tsunami Inundation Map – Torrance/San Pedro Quadrangle (Source: California Department of Conservation)



Map: Tsunami Inundation Map – Venice Quadrangle (Source: California Department of Conservation)

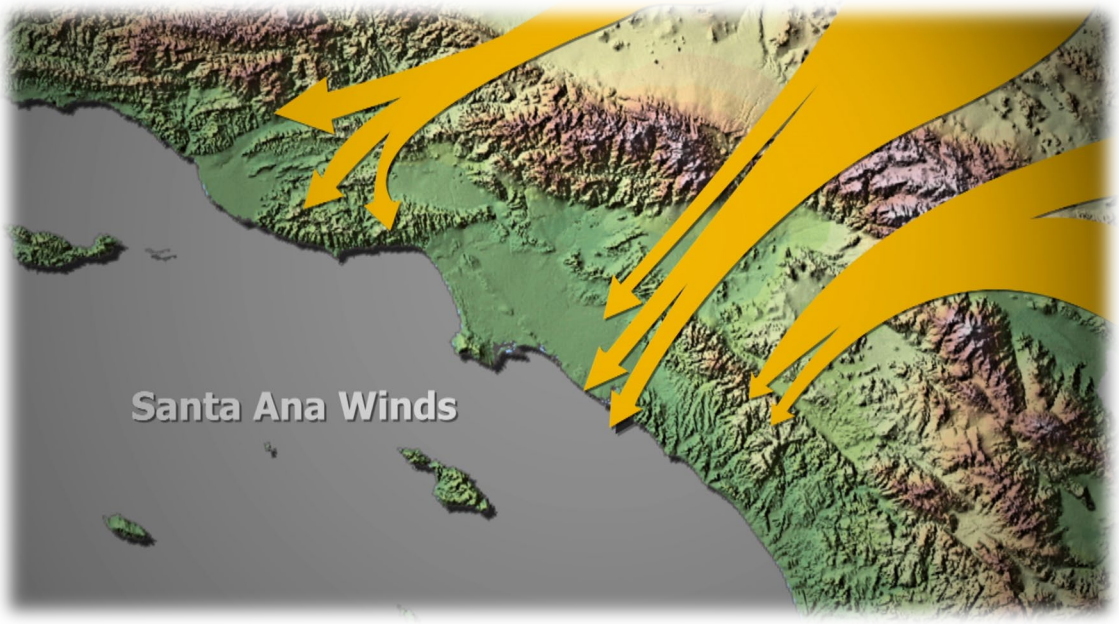


Windstorm Hazards

Hazard Definition

Santa Ana winds are generally defined as warm, dry winds that blow from the east or northeast (offshore). These winds occur below the passes and canyons of the coastal ranges of Southern California and in the Los Angeles and Orange County basins. Santa Ana winds often blow with exceptional speed in the Santa Ana Canyon (the canyon from which it derives its name). Forecasters at the National Weather Service offices in Oxnard and San Diego usually place speed minimums on these winds and reserve the use of "Santa Ana" for winds greater than 25 knots." These winds accelerate to speeds of 35 knots as they move through canyons and passes, with gusts to 50 or even 60 knots.

Infographic: Santa Ana Winds
Source: A screenshot from the USGS film "Living with Fire"



Caption: Santa Ana Winds are a natural phenomenon in southern California that contributes to the region's fire ecology. USGS is investigating ways to balance community fire risk management and native habitat conservation as part of the USGS Southern California Wildfire Risk Scenario Project, analyzing both human factors and natural factors.

The complex topography of Southern California combined with various atmospheric conditions create numerous scenarios that may cause widespread or isolated Santa Ana events. Commonly, Santa Ana winds develop when a region of high pressure builds over the Great Basin (the high plateau east of the Sierra Mountains and west of the Rocky Mountains including most of Nevada and Utah). Clockwise circulation around the center of this high-pressure area forces air downslope from the high plateau. The air warms as it descends toward the California coast at the rate of five degrees F per 1,000 feet due to compressional heating. Thus, compressional heating provides the primary source of warming. The air is dry since it originated in the desert, and it dries out even more as it is heated.

These regional winds typically occur from October to March, and, according to most accounts are named either for the Santa Ana River Valley where they originate, or for the Santa Ana Canyon, southeast of Los Angeles, where they pick up speed.

What is Susceptible to Windstorms?

Life and Property

Windstorm events can be expected, perhaps annually, across widespread areas of the region which can be adversely impacted during a windstorm event. This can result in the involvement of emergency response personnel during a wide-ranging windstorm or microburst tornadic activity. Both residential and commercial structures with weak reinforcement are susceptible to damage. Wind pressure creates a direct and frontal assault on a structure, pushing walls, doors, and windows inward. Conversely, passing currents creates lift suction forces that pull building components and surfaces outward. With extreme wind forces, the roof or entire building can fail causing considerable damage.

Debris carried along by extreme winds can directly contribute to loss of life and indirectly to the failure of protective building envelopes, siding, or walls. When severe windstorms strike an area, downed trees, power lines, and damaged property can be major hindrances to emergency response and disaster recovery.

Utilities

Historically, falling trees are the major cause of power outages in the project area. Windstorms such as strong microbursts and Santa Ana Wind conditions cause flying debris and downed utility lines. For example, tree limbs breaking in winds of only 45 mph can be thrown over 75 feet, overhead power lines are damaged, even in relatively minor windstorm events. Falling trees bring electric power lines down to the pavement, creating the possibility of lethal electric shock.

Infrastructure

Windstorms damage buildings, power lines, and other property, and infrastructure, due to falling trees and branches. During wet winters, saturated soils cause trees to become less stable and more vulnerable to uprooting from high winds.

Increased Fire Threat

Perhaps the greatest danger from windstorm activity in the project area comes from the combination of the Santa Ana winds with the major fires that occur every few years in the urban/wildland interface. With the Santa Ana winds driving the flames, the speed and reach of the flames is even greater than in times of calm wind conditions.

Transportation

Windstorm activity impacts local transportation in addition to the problems caused by downed trees and electrical wires blocking streets and highways. During periods of extremely strong Santa Ana winds, major highways can be temporarily closed to truck and recreational vehicle traffic. However, typically these disruptions are not long lasting, nor do they carry a severe long term economic impact on the region.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Windstorms in the Metro Service Area** below.

Previous Occurrences of Windstorms in the Metro Service Area

Based on local history, most incidents of high wind in the County of Los Angeles are the result of the Santa Ana and El Niño–related wind conditions. While high-impact wind incidents are not frequent in the area, significant wind events and sporadic tornado activity have been known to negatively affect the county. Between 2015-2019, the County of Los Angeles experienced 49 wind related events with gusts reaching 79mph. As an example, on December 22, 2015, 20 big rig trucks were turned over by 80mph winds, shutting down the Antelope Valley 14 Freeway, shutting down routes between northern and southern California. Although the region did not suffer fatalities or serious injuries, the high winds fueled devastating Thomas Fire (2017). Below is a history of wind related events in the County of Los Angeles within the last five years:

Table: High Wind, Strong Wind and Tornado Events in Los Angeles County, 2015-2019 (Source: NOAA, Storm Events Database, 2019)

Location	Date	Time	Time Zone	Event Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Santa Monica Mountains Recreation Area	10/30/2015	00:47	PST-8	High Wind	37 knots MS	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	10/30/2015	02:55	PST-8	High Wind	55 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	11/15/2015	02:55	PST-8	High Wind	63 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	11/15/2015	06:55	PST-8	High Wind	62 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	12/11/2015	20:53	PST-8	High Wind	69 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	12/25/2015	18:53	PST-8	High Wind	66 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	12/26/2015	01:56	PST-8	High Wind	58 knots MG	0	0	0.00K	0.00K
Los Angeles County Coasts Including Downtown Los Angeles	01/31/2016	15:53	PST-8	High Wind	36 knots MS	0	0	0.00K	0.00K
Antelope Valley	01/31/2016	18:00	PST-8	High Wind	50 knots MG	0	0	0.00K	0.00K

Los Angeles County Mountains Excluding the Santa Monica Range	02/07/2016	11:55	PST-8	High Wind	53 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	02/07/2016	11:57	PST-8	High Wind	56 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	02/17/2016	09:53	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	03/22/2016	22:56	PST-8	High Wind	56 knots MG	0	0	0.00K	0.00K
Antelope Valley	03/27/2016	12:55	PST-8	High Wind	55 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	04/14/2016	20:53	PST-8	High Wind	57 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	04/14/2016	21:57	PST-8	High Wind	55 knots MG	0	0	0.00K	0.00K
Antelope Valley	11/27/2016	09:00	PST-8	High Wind	54 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	12/02/2016	03:00	PST-8	High Wind	56 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	12/02/2016	07:00	PST-8	High Wind	59 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	12/02/2016	12:57	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	01/22/2017	09:55	PST-8	High Wind	72 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	01/27/2017	03:53	PST-8	High Wind	66 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	01/27/2017	14:21	PST-8	High Wind	56 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	02/12/2017	07:55	PST-8	High Wind	62 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	02/17/2017	13:56	PST-8	High Wind	57 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	02/17/2017	14:56	PST-8	High Wind	51 knots MG	0	0	0.00K	0.00K
Catalina and Santa Barbara Islands	02/17/2017	15:22	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Antelope Valley	03/27/2017	14:00	PST-8	High Wind	51 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	03/27/2017	22:00	PST-8	High Wind	56 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	03/30/2017	19:47	PST-8	High Wind	51 knots MG	0	0	0.00K	0.00K

Los Angeles County Mountains Excluding the Santa Monica Range	04/27/2017	14:55	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	10/09/2017	03:53	PST-8	High Wind	55 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	10/09/2017	07:19	PST-8	High Wind	65 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	10/09/2017	09:56	PST-8	High Wind	58 knots MG	0	0	0.00K	0.00K
Santa Clarita Valley	12/04/2017	09:56	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	12/04/2017	18:56	PST-8	High Wind	62 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	12/04/2017	23:53	PST-8	High Wind	63 knots MG	0	0	0.00K	0.00K
Los Angeles County San Fernando Valley	12/05/2017	05:54	PST-8	High Wind	57 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	01/28/2018	01:55	PST-8	High Wind	61 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	01/28/2018	04:56	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	04/12/2018	17:53	PST-8	High Wind	60 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	10/15/2018	05:56	PST-8	High Wind	57 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	10/15/2018	07:55	PST-8	High Wind	57 knots MG	0	0	0.00K	0.00K
Santa Monica Mountains Recreation Area	11/08/2018	21:38	PST-8	High Wind	63 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	11/08/2018	23:53	PST-8	High Wind	54 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	11/12/2018	09:53	PST-8	High Wind	52 knots MG	0	0	0.00K	0.00K
Antelope Valley	03/12/2019	23:16	PST-8	High Wind	59 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	03/12/2019	23:53	PST-8	High Wind	61 knots MG	0	0	0.00K	0.00K
Los Angeles County Mountains Excluding the Santa Monica Range	04/09/2019	23:20	PST-8	High Wind	64 knots MG	0	0	0.00K	0.00K
Totals:						0	0	0.00K	0.00K

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.

Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Local Conditions** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.

Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii))
A: See **Local Conditions** below.

Local Conditions

According to the Metro Climate Action and Adaptation Plan (2019), the Santa Ana winds are a key feature of the Los Angeles climate. These winds vary year to year and, currently, scientists are unsure how climate change could affect them in the future. The best available data suggest there might not be a significant change.

The Southern California climate is generally mild and does not produce enough airflow to generate a windstorm. However, during the Fall, season shifts in weather patterns begin to arise and produce very high and unpredictable winds. These windstorm conditions are known as the Santa Ana winds and often produce events such as trees and power lines falling down. Severe windstorms pose a significant risk to life and property in the project area by creating conditions that disrupt essential systems such as public utilities, telecommunications and transportation routes. High winds can and do occasionally cause tornado-like damage to local homes and businesses. Severe windstorms can present a very destabilizing effect on the dry brush that covers the County of Los Angeles' hillsides and urban wildland interface areas. High winds can have destructive impacts, especially to trees, power lines, and utility services. Perhaps the greatest danger from windstorm activity in the region comes from the combination of the Santa Ana winds and the major fires that occur every few years in the urban/wildland interface.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.

Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii))
A: See **Impact of Windstorms in the Metro Service Area** below.

Impacts of Windstorms in the Metro Service Area

Based on the risk assessment, it is evident that windstorms will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Minor to major disruption of revenue service on bus and rail

- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Damage to overhead catenary lines resulting from falling trees and limbs
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

Climate Change Hazards

Hazard Definition

Climate Change
According to National Geographic, “climate change” refers to a long-term shift in global or regional climate patterns. It is generally perceived in the emergency management profession that climate change will have a measurable impact on the occurrence and severity of natural hazards around the world. Changes could include:

- Sea ice and snow cover losses will continue, and declining snowpack will affect snow-dependent water supplies and stream flow levels around the world.
- Sea level is projected to rise 7 to 23 inches during the 21st century due to melting snow and ice on land and thermal expansion of ocean waters.
- The risk of drought and the frequency, intensity, and duration of heat waves are expected to increase.
- More extreme precipitation is likely, increasing the risk of flooding; if the world’s average temperature warms only an additional 2.7ºF to 4.5ºF above pre-industrial levels, an estimated 20 to 30 percent of known plant and animal species would be at increasingly high risk of extinction.

Climate change will affect communities in a variety of ways. Impacts could include an increased risk for extreme events such as drought, storms, flooding, and forest fires; more heat-related stress; the spread of existing or new vector-born disease into a community; and increased erosion and inundation of low-lying areas along coastlines. In many cases, communities are already facing these problems to some degree.

According to the 2019 County of Los Angeles All-Hazards Mitigation Plan, the effects of climate change are expected to negatively impact water and electricity demand and supplies in Los Angeles County. Decreasing air quality and extreme heat days will degrade public health, as well as and increase wildfire risk. And low-lying coastal areas may flood or be underwater from sea level rise.

Sub-Hazards: Drought, Sea Level Rise, Extreme Heat
In recognition of the priorities mentioned above, the Planning Team identified drought, sea level rise, and extreme heat as “sub-hazards”. As such, hazard profiles have been prepared for each of the three and hazard mitigation action items included in the Mitigation Strategy.

<u>Drought</u>
It’s impossible to separate drought from water supply shortages. Drought is defined as a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought should be considered relative to some long-term average condition of balance between precipitation and evapotranspiration (i.e., evaporation + transpiration) in a particular area, a condition often perceived as "normal". It is also related to the timing (e.g., principal season of occurrence, delays in the start of the rainy season, occurrence of rains in relation to principal crop growth stages) and the effectiveness of the rains (e.g., rainfall intensity, number of rainfall events).

Other climatic factors such as high temperature, high wind, and low relative humidity are often associated with it in many regions of the world and can significantly aggravate its severity. Drought should not be viewed as merely a physical phenomenon or natural event. Its impacts on society result from the interplay between a natural event (less precipitation than expected resulting from natural climatic variability) and the demand people place on water supply. Human beings often exacerbate the impact of drought. Recent droughts in both developing and developed countries and the resulting economic and environmental impacts and personal hardships have underscored the vulnerability of all societies to this natural hazard.

One dry year does not normally constitute a drought in California but serves as a reminder of the need to plan for droughts. California's extensive system of water supply infrastructure — its reservoirs, groundwater basins, and inter-regional conveyance facilities — mitigates the effect of short-term dry periods for most water users. Defining when a drought begins is a function of drought impacts to water users. Hydrologic conditions constituting a drought for water users in one location may not constitute a drought for water users elsewhere, or for water users having a different water supply. Individual water suppliers may use criteria such as rainfall/runoff, amount of water in storage, or expected supply from a water wholesaler to define their water supply conditions.

Drought is a gradual phenomenon. Although droughts are sometimes characterized as emergencies, they differ from typical emergency events. Most natural disasters, such as floods or forest fires, occur relatively rapidly and afford little time for preparing for disaster response. Droughts occur slowly, over a multiyear period. There is no universal definition of when a drought begins or ends. Impacts of drought are typically felt first by those most reliant on annual rainfall -- ranchers engaged in dry land grazing, rural residents relying on wells in low-yield rock formations, or small water systems lacking a reliable source. Criteria used to identify statewide drought conditions do not address these localized impacts. Drought impacts increase with the length of a drought, as carry-over supplies in reservoirs are depleted and water levels in groundwater basins decline.

There are four different ways that drought can be defined:

o Meteorological - a measure of departure of precipitation from normal. Due to climatic differences what is considered a drought in one location may not be a drought in another location.
o Agricultural - refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop.
o Hydrological - occurs when surface and subsurface water supplies are below normal.
o Socioeconomic - refers to the situation that occurs when physical water shortage begins to affect people.

According to the 2019 County of Los Angeles All-Hazards Mitigation Plan, a drought's severity depends on numerous factors, including duration, intensity, and geographic extent, as well as regional water supply demands by humans and vegetation. Due to its multidimensional nature, drought is difficult to define in exact terms and poses difficulties in terms of comprehensive risk assessments.

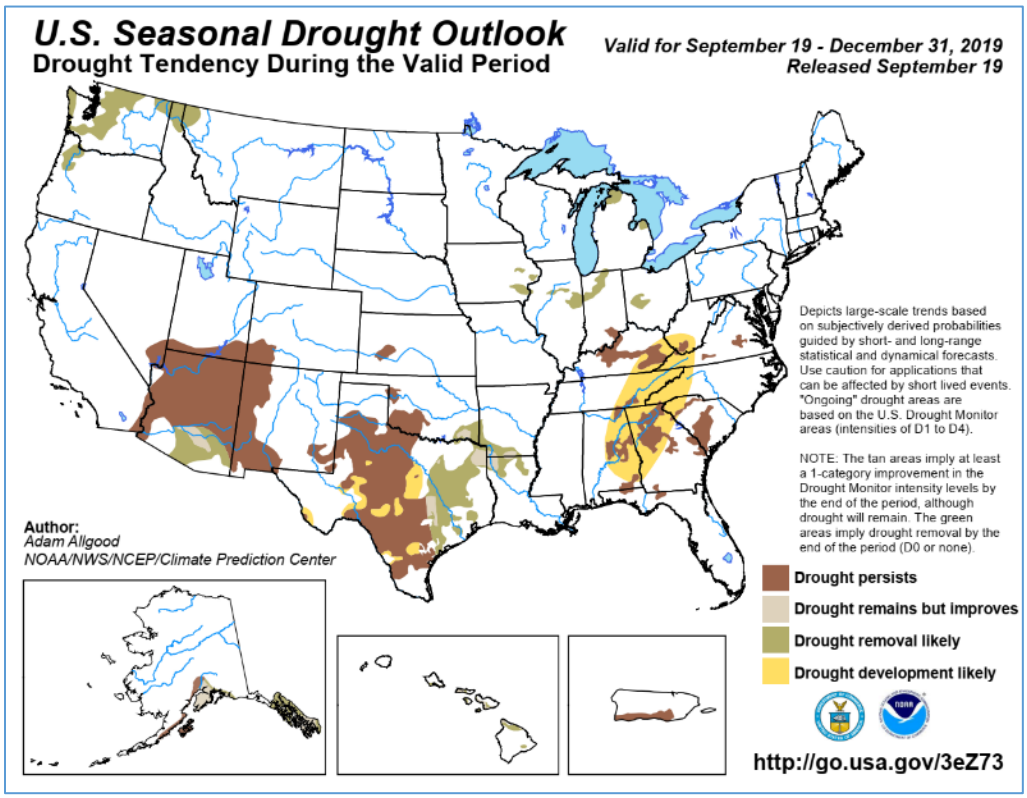
Drought differs from other natural hazards in three ways. First, the onset and end of a drought are difficult to determine due to the slow accumulation and lingering of effects of an event after its apparent end. Second, the lack of an exact and universally accepted definition adds to the confusion of its existence and severity. Third, in contrast with other natural hazards, the impact of drought is less obvious and may be spread over a larger geographic area. These

characteristics have hindered the preparation of drought contingency or mitigation plans by many governments.

According to the 2019 County of Los Angeles All-Hazards Mitigation Plan, climate scientists predict that Los Angeles County and the rest of southern California will get drier and northern California will get hotter. The resulting loss of snowpack in the Sierra Nevada will mean less water for all Californians – farmers, residents, utilities, and even hatchery fish. However, while drought cannot be controlled, according to the USGS, drought can be managed in two ways: through drought planning and in helping communities make the best day-to-day management decisions while the drought is taking place. During the drafting of this plan update, the Governor of California signed an executive order directing specific State agencies to develop a Water Resilience Portfolio to "ensure safe and dependable water supplies, flood protection and healthy waterways for the state's communities, economy and environment."

The U.S. Seasonal Drought Outlook below shows the Metro Service Area as well as California as a whole is no longer in danger from the impacts of drought:

Figure: U.S. Seasonal Drought Outlook - 2019
(Source: NOAA)



Sea Level Rise

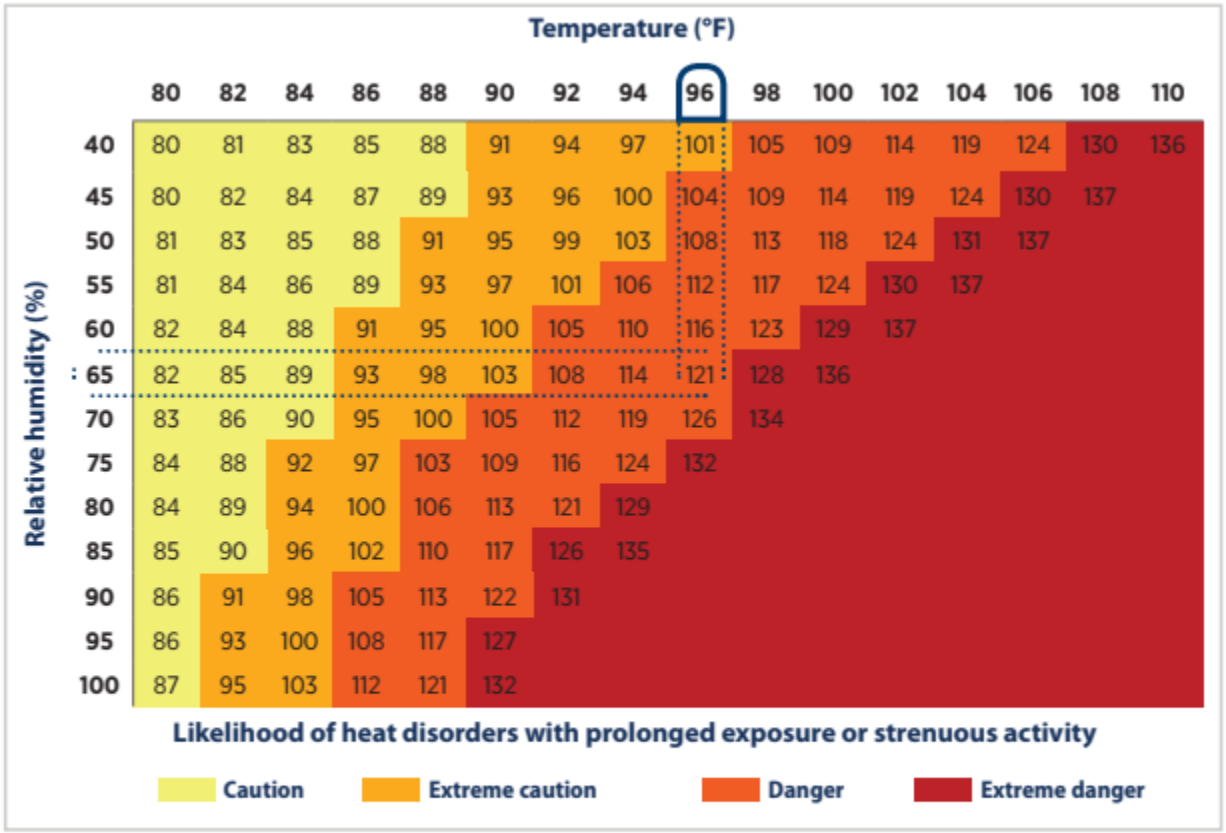
According to National Geographic, sea level rise is the result of an increase in the level of the world's oceans due to the effects of global warming. Burning fossil fuels is one of the causes of global warming because it releases carbon dioxide and other heat-trapping gasses into the atmosphere. The oceans then absorb the majority of this heat. As water becomes warmer, it

expands. Furthermore, sea level rise poses a serious threat to coastal life around the world. Consequences include increased intensity of storm surges, flooding, and damage to coastal areas.

Extreme Heat

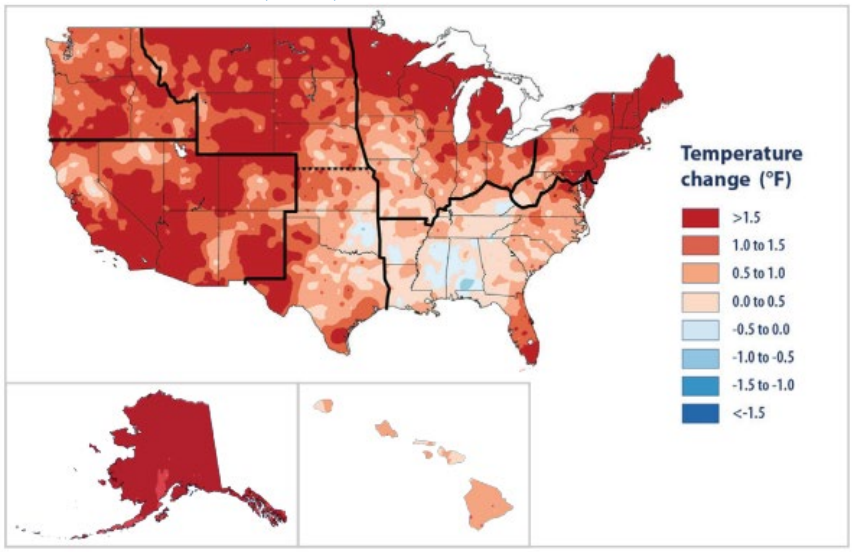
Extreme heat conditions are defined as weather that is much hotter than average for a particular time and place—and sometimes more humid, too. Extreme heat is not just a nuisance; it kills hundreds of Americans every year and causes many more to become seriously ill. The heat index is a measure of how hot it feels when relative humidity is factored in with the actual air temperature. Relative humidity is the percentage of moisture in the air compared with the maximum amount of moisture the air can hold. Humidity is an important factor in how hot it feels because when humidity is high, water doesn't evaporate as easily, so it's harder for your body to cool off by sweating.

Figure: NOAA's National Weather Service Heat Index
(Source: NOAA National Weather Service, 2016)



This chart shows that as the temperature (horizontal axis) and relative humidity (vertical axis) each increase, they combine to create a heat index (colored values) that feels hotter than the actual temperature. For example, when the temperature is 96°F, with 65 percent humidity, it actually feels like 121°F (indicated by the blue lines in the chart above). Source: NOAA National Weather Service, 2016[1]

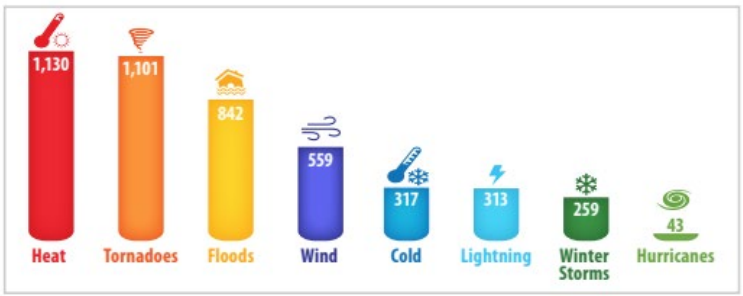
Figure: Observed U.S. Temperature Change
Source: Source: Melillo, et al., 2014



The colors on this map show temperature changes over the past 22 years (1991–2012) compared with the 1901–1960 average for the contiguous United States. Temperature changes for Alaska and Hawaii were compared with the 1951–1980 average for those states.Thick borders represent National Climate Assessment regions. Source: Melillo et al., 2014[3]

According to CDC's Extreme heat causes more deaths than any other weather-related hazard—more than hurricanes, tornadoes, or flooding. In addition, thousands of people who are exposed to extreme heat seek medical treatment each year. In fact, each - summer more than 65,000 Americans on average visit an emergency room for acute heat illness.

Figure: Fatalities by Hazard, 2006–2015
Source: NOAA National Weather Service, 2016



Numbers in each bar represent the total number of fatalities by hazard. Source: NOAA National Weather Service, 2016[12]

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.
Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Previous Occurrences of Climate Change in the Metro Service Area** below.

Previous Occurrences of Climate Change and Sub-Hazards in the Metro Service Area

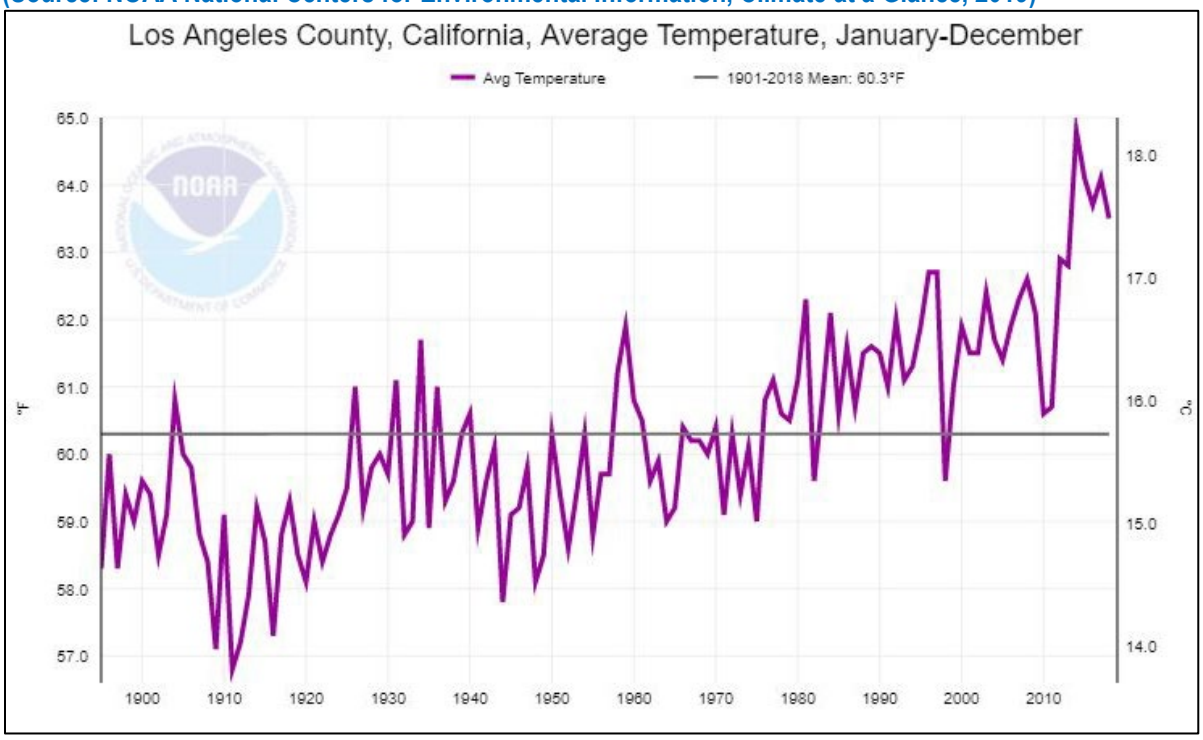
Climate Change

According to the Los Angeles Region Report of California's Fourth Climate Change Assessment 2018, observations over the past century indicate that temperature has increased across southern California. Based on 1896-2015 temperature records for the California South Coast NOAA

Climate Division, which encompasses the LA region, He and Gautam (2016) found significant trends in annual average, maximum, and minimum temperature around 0.16°C per decade. Every month has experienced significant positive trends in monthly average, maximum, and minimum temperature. Monthly average and minimum temperatures have increased the most in September and monthly maximum temperatures have increased the most in January, with each trend exceeding 0.2°C per decade. Recently, the California South Coast Climate Division has experienced sustained record warmth. The top 5 warmest years in terms of annual average temperature have all occurred since 2012: 2014 was the warmest, followed by 2015, 2017, 2016, and 2012.

The NOAA National Centers for Environmental Information published data in December 2019 showing this increase in average temperature:

Table: Average Temperatures in January-December, 1895-2019
(Source: NOAA National Centers for Environmental Information, Climate at a Glance, 2019)



According to the Environmental Protection Agency, since the 1990s, scientific research on climate change has included multiple disciplines and has expanded, significantly increasing our understanding of causal relations, links with historic data, and ability to numerically model climate change. The most recent work has been summarized in the Assessment Reports by the Intergovernmental Panel on Climate Change (IPCC). Climate change is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions, or in the distribution of weather around the average conditions (i.e., more or fewer extreme weather events). Climate change is caused by factors that include oceanic processes (such as oceanic circulation), biotic processes, variations in solar radiation received by Earth, plate tectonics and volcanic eruptions, and human-induced alterations of the natural world; these latter effects are currently causing global warming, and "climate change" is often used to describe human-specific impacts.

Sub-Hazards: Drought, Sea Level Rise, Extreme Heat

Drought

Drought is a cyclic part of the climate of California, occurring in both summer and winter, with an average recurrence interval between 3 and 10 years. Droughts in California over the past 100 years are listed as follows. The most recent drought from 2011 to 2015 was the driest 4-year period on record in California since recordkeeping began in 1895.

- 1917-1921, Statewide except for central Sierra Nevada and north coast
- 1922-1926, Statewide except for central Sierra Nevada
- 1928-1937, Statewide
- 1943-1951, Statewide
- 1959-1962, Statewide
- 1976-1977, Statewide, except for southwestern deserts
- 1987-1992, Statewide
- 2007-2009, Statewide, particularly the central coast
- 2011-2015, Statewide

Sea Level Rise

No historical information for the Metro Service Area.

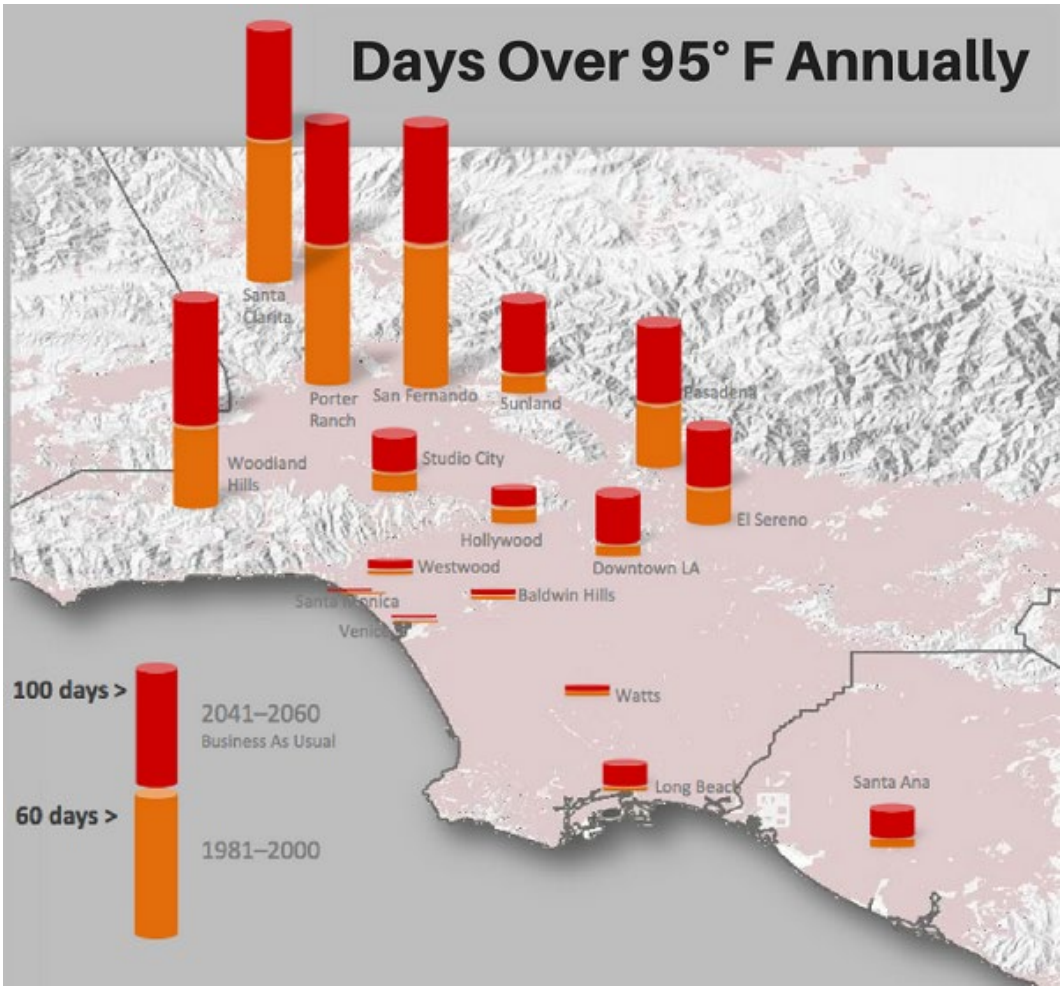
Extreme Heat

All across Los Angeles, we're feeling the effects of climate change, like more very hot days and heat waves later in the summer. Scientists predict that climate change will continue to cause even more extreme heat in the future. Coastal areas and central Los Angeles will experience three times more days of temperatures over 95°F, and the San Fernando and San Gabriel Valleys will have even more extremely hot weather.

Photo: Los Angeles Heat Wave
Source: Pixabay

The chart below was developed by UCLA showing predictions for the number of days over 95°F in dark orange (as compared to the current number of days in light orange) assuming climate change stays on its present trajectory:

Chart: Days Over 95 F Annually
Source: UCLA Institute of the Environment and Sustainability



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.
Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.
Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii)) **A:** See **Local Conditions** below.

Local Conditions

Climate Change
According to the Metro Climate Action and Adaptation Plan (2019), Metro assessed impacts from projections of seven categories of climate-related hazards by 2050 including:

- Extreme heat
- Electrical outages
- Wildfires
- Heavy precipitation events
- Riverine flooding
- Landslides and mudslides
- Sea-level rise and coastal flooding

It's important to note that these hazards are expected to occur with more intensity or frequency as the climate changes.

Photo: Metro station
Source: Metro Climate Action and Adaptation Plan 2019

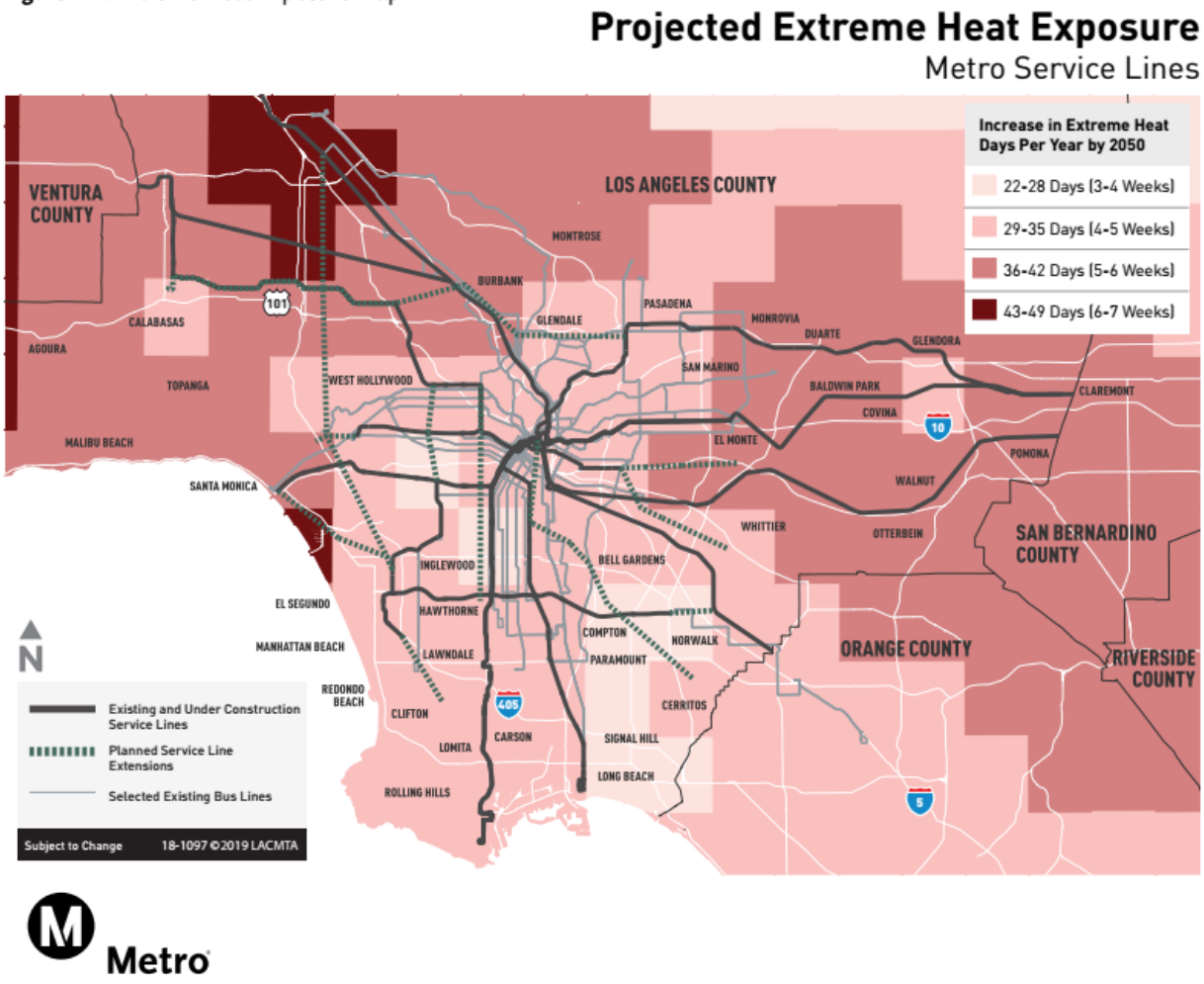
Caption: Metro Bus riders at a Metro Station.

Extreme Heat

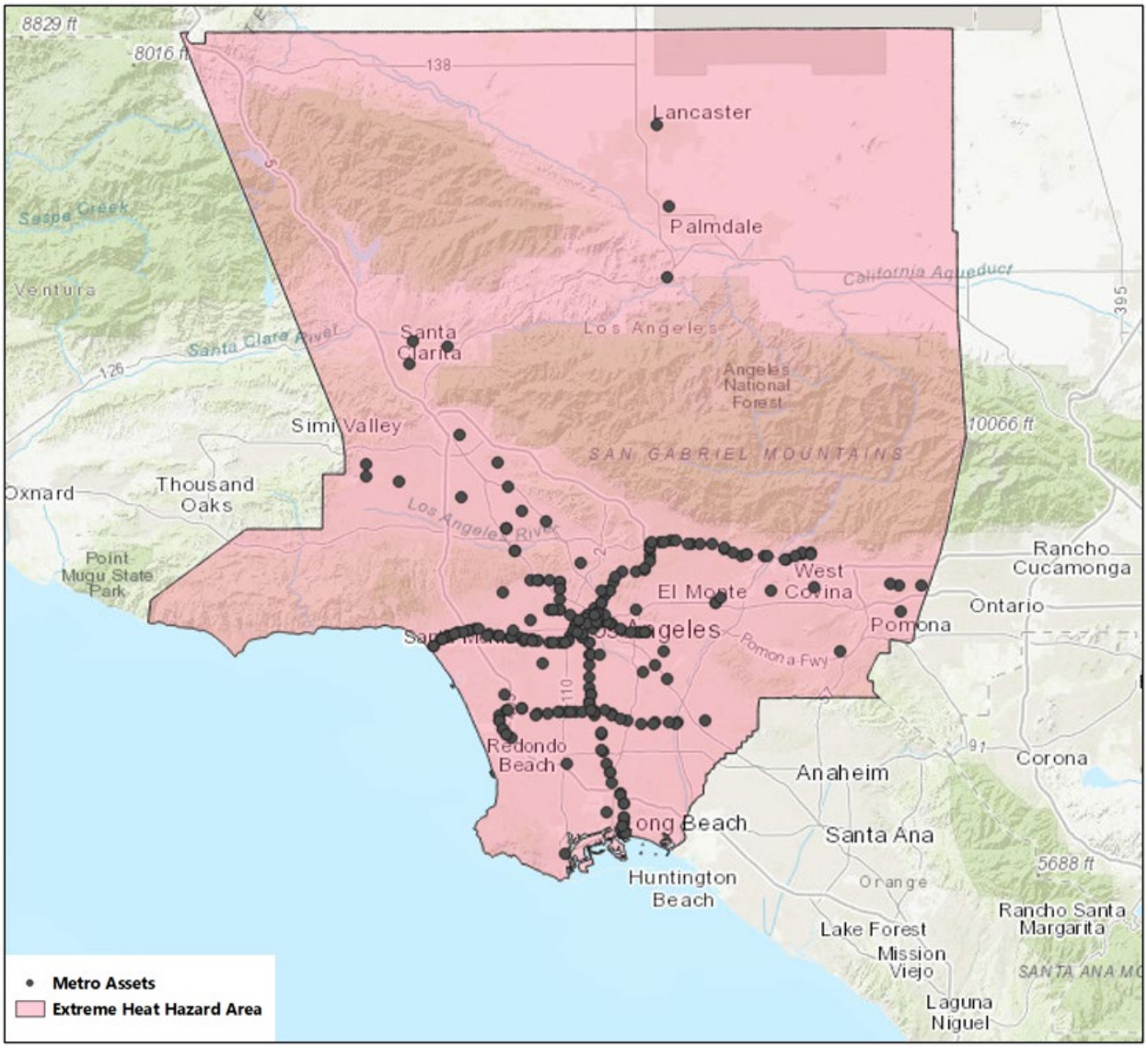
Of the seven climate hazards assessed in the Metro CAAP, extreme heat could affect the greatest number of assets and people. As extreme temperatures become more common, sensitive systems and equipment can overheat and malfunction. Overhead catenary lines can sag, trackwork can buckle, hydraulic lift systems in elevators can overheat and signal switches and communication systems can malfunction. Each situation results in costly repairs and service disruptions. Those rail and bus assets located downtown are most at risk due to their criticality to the overall system. Extreme heat events can also pose health hazards for riders and employees. Air conditioning in buses or in rail stations might be unable to provide enough cooling for passenger comfort. Without shade, riders walking to stations or waiting at bus stops could experience heat-related health impacts. Extreme heat often leads to reduced air quality, which further impacts health.

Map: Projected Extreme Heat Exposure
(Source: Metro Climate Action and Adaptation Plan, 2019)

Figure B-2: Extreme Heat Exposure Map



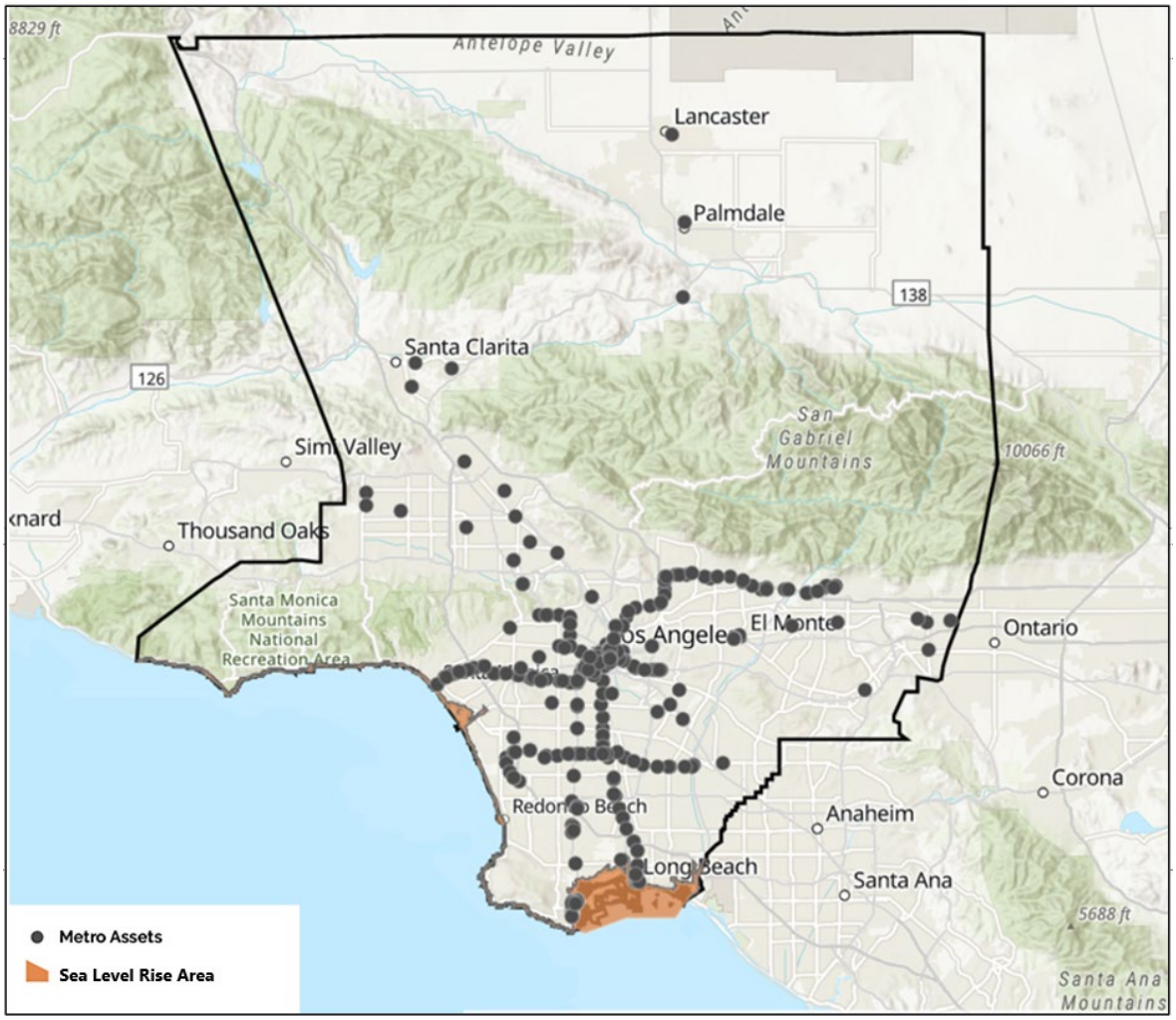
Map: Metro Critical Assets Impacted by Extreme Heat
(Source: General Technologies and Solutions)



Sea Level Rise

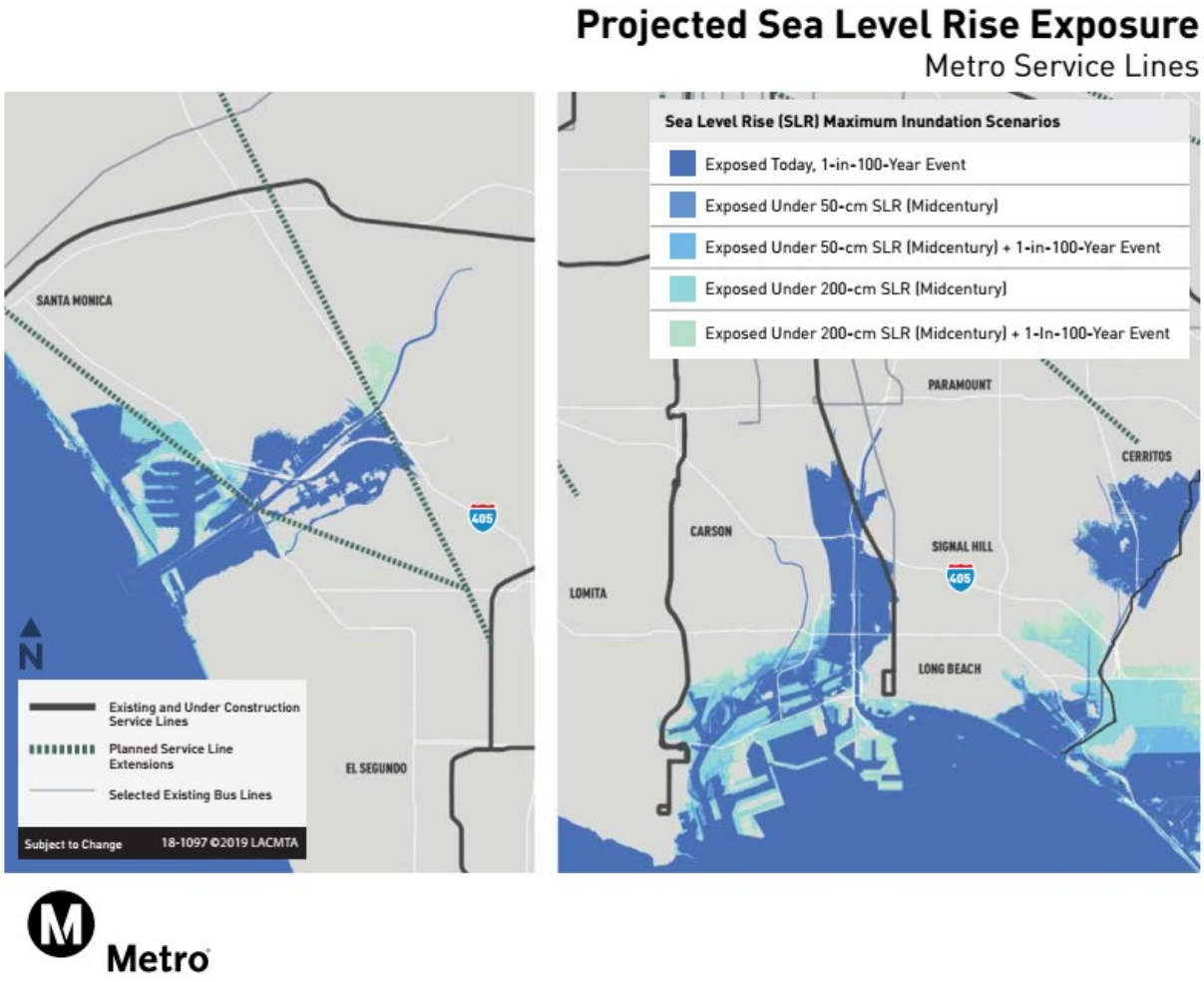
Sea level rise and coastal flooding could have severe long-term impacts on coastal assets. Most of Metro's assets are inland, and therefore not at risk to sea level rise and coastal flooding. However, Metro's 18 coastal assets are exposed to this hazard and are at high or extreme risk. The most at risk are rail assets, bus routes and buildings. Sea level rise and coastal flooding can inundate sensitive equipment or close certain buildings and rail stations, causing problems for the communities that rely on Metro to move.

Map: Metro Critical Assets Impacted by Sea Level Rise
(Source: General Technologies and Solutions)



Map: Projected Sea Level Rise Exposure
(Source: Metro Climate Action and Adaptation Plan, 2019)

Figure B-8: Sea Level Rise and Coastal Flooding Exposure Map



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.
Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii)) **A:** See **Impact of Climate Change in the Metro Service Area** below.

Impact of Climate Change, Drought, Sea Level Rise, and Extreme Heat in the Metro Service Area

Based on the risk assessment, it is evident that climate change will continue to have potentially devastating economic impacts to the Metro service area and Metro facilities. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Minor to major disruption of revenue service on bus and rail

- ✓ Damage to infrastructure
- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards (e.g., mold and mildew)
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values

Epidemic/Pandemic/Vector-Borne Diseases Hazards

Hazard Definition

According to the California State Hazard Mitigation Plan (2018), the California Department of Public Health has identified epidemics, pandemics, and vector-borne diseases as specific hazards that would have a significant impact throughout the State.

According to the Centers for Disease Control (CDC), an epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population area. A pandemic refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people. Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors – living organisms that can transmit infectious pathogens between humans, or from animals to humans.

Seasonal Influenza

Seasonal influenza, also known as the flu, is a disease that attacks the respiratory system (nose, throat, and lungs) in humans. Seasonal influenza occurs every year. In the U.S., the influenza season typically occurs from October through May, peaking in January or February with yearly epidemics of varying severity. Although mild cases may be similar to a viral "cold," influenza is typically much more severe. Influenza usually comes on suddenly; may include fever, headache, tiredness (which may be extreme), dry cough, sore throat, nasal congestion, and body aches; and can result in complications such as pneumonia. Persons aged 65 and older, those with chronic health conditions, pregnant women, and young children are at the highest risk for serious complications, including death.

Pandemic Influenza

A pandemic influenza occurs when a new influenza virus, for which there is little or no human immunity, emerges and spreads on a worldwide scale, infecting a large proportion of the human population. The 20th century saw three such pandemics. The most notable pandemic was the 1918 Spanish influenza pandemic that was responsible for 20 million to 40 million deaths throughout the world. There have been two pandemics in the 21st century; H1N1 in 2009, and the most recent COVID outbreak in 2019. As demonstrated historically and currently, pandemic influenza has the potential to cause serious illness and death among people of all age groups and have a major impact on society. These societal impacts include significant economic disruption

that can occur due to death, loss of employee work time, and costs of treating or preventing the spread of influenza.

H1N1 Influenza

In 2009 a pandemic of H1N1 influenza, popularly referred to as the swine flu, resulted in many hospitalizations and deaths. Pandemic H1N1 influenza is spread in the same way as seasonal influenza, from person to person through coughing or sneezing by infected people. In April 2009, two kids living more than 100 miles apart in Southern California came down with the flu. By mid-April, their illnesses had been diagnosed as being caused by a new strain of H1N1 influenza. Persons infected with H1N1 experienced fever and mild respiratory symptoms, such as coughing, runny nose, and congestion. In some cases, symptoms were severe and included diarrhea, chills, and vomiting, and in rare cases respiratory failure occurred. The H1N1 virus caused relatively few deaths in humans. In the United States, for example, it caused fewer deaths (between 8,870 and 18,300) than seasonal influenza, which, based on data for the years 2014–2019, causes an average of about 40,000 deaths each year. The H1N1 virus was most lethal in individuals affected by chronic disease or other underlying health conditions.

COVID-19

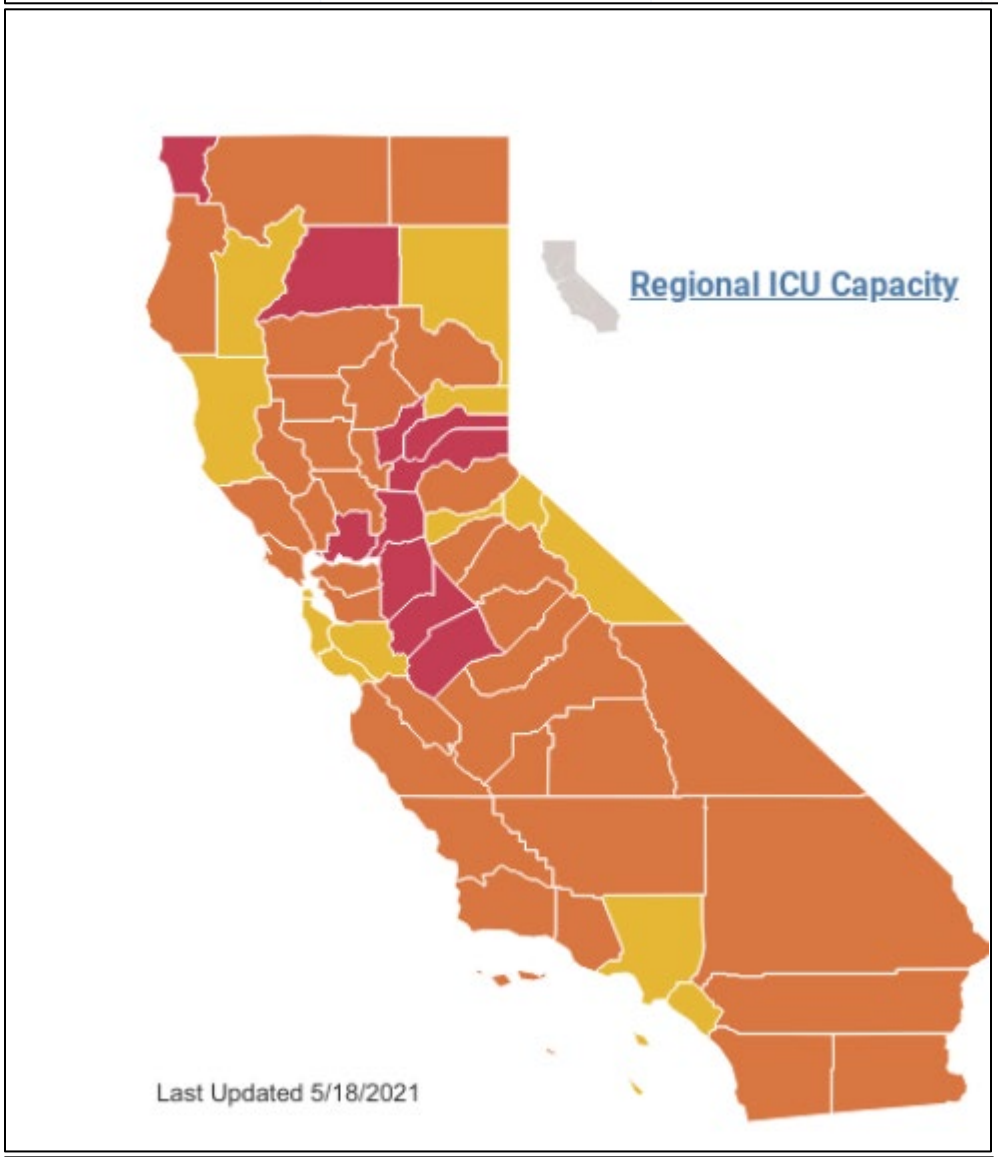
In 2019, the CDC responded to a pandemic of respiratory disease spreading from person to person caused by a novel (new) coronavirus. The disease was named “Coronavirus Disease 2019” (abbreviated “COVID-19”). Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people such as with Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

According to the CDC, many of the patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had some link to a large seafood and live animal market, suggesting animal-to-person spread. Later, a growing number of patients reportedly did not have exposure to animal markets, indicating person-to-person spread. Person-to-person spread was subsequently reported outside Hubei and in countries outside China, including in the United States. Most international destinations now have ongoing community spread with the virus that causes COVID-19, as does the United States.

On March 4, 2020, Governor Newsom proclaimed a state of emergency in the California in response to the COVID-19 outbreak. On March 19, 2020, Governor Newsom issued an executive order directing all residents immediately to heed current State public health directives to stay home, except as needed to maintain continuity of operations of essential critical infrastructure sectors. After a fourteen month stay at home order, the counties in California range from minimal to substantial risk levels, and the counties no longer fit the criteria for the widespread designation.

Figure: California's County Risk Levels as of May 18, 2021
(Source: California Department of Public Health)

WIDESPREAD	SUBSTANTIAL	MODERATE	MINIMAL
Many non-essential indoor business operations are closed	Some non-essential indoor business operations are closed	Some indoor business operations are open with modifications	Most indoor business operations are open with modifications



COUNTY RISK LEVELS

	Counties	Population	
Substantial	10	4,428,415	11.0%
Moderate	35	18,114,222	45.1%
Minimal	13	17,586,523	43.8%

Avian Influenza

Avian Influenza, commonly referred to as "Bird Flu," remains a looming pandemic threat. Avian Influenza primarily spreads from birds to birds and rarely to humans. Public health experts continue to be alert to the possibility that an avian virus may mutate or change so that it can be passed from birds to humans, potentially causing a pandemic in humans. Some strains of the Avian Influenza could arise from Asia or other continents where people have very close contact with infected birds. This disease could have spread from poultry farmers or visitors to live poultry markets who had been in very close contact with infected birds and contracted fatal strains of Avian Influenza. Thus far, Avian Influenza viruses have not mutated and have not demonstrated easy transmission from person to person. However, if Avian Influenza viruses were to mutate into a highly virulent form and become easily transmissible from person to person, the public health community would be very concerned about the potential for an influenza pandemic. Such a pandemic could disrupt all aspects of society and severely affect the economy.

Vector-Borne Diseases

Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors. Every year there are more than 700,000 deaths from diseases such as malaria, dengue, schistosomiasis, human African trypanosomiasis, leishmaniasis, Chagas disease, yellow fever, Japanese encephalitis and onchocerciasis. Vectors are living organisms that can transmit infectious pathogens between humans, or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later transmit it into a new host, after the pathogen has replicated. Often, once a vector becomes infectious, they can transmit the pathogen for the rest of their life during each subsequent bite/blood meal.

Mosquito-Borne Viruses

Mosquito-borne viruses belong to a group of viruses commonly referred to as arboviruses (for arthropod-borne). Although 12 mosquito-borne viruses are known to occur in California, only West Nile virus (WNV), western equine encephalomyelitis virus (WEE), and St. Louis encephalitis virus (SLE) are significant causes of human disease. WNV continues to seriously affect the health of humans, horses, and wild birds throughout the state. Since 2003, there have been over 6,000 WNV human cases with 248 deaths, and over 1,200 equine cases.

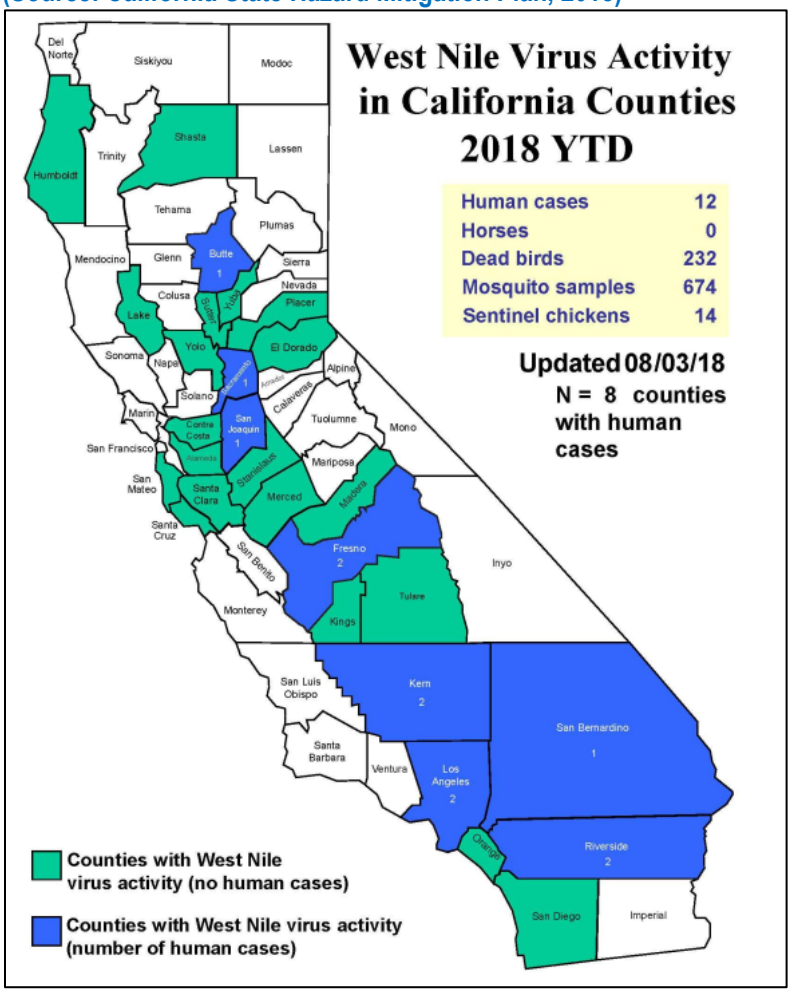
WNV first appeared in the United States in 1999 in New York and rapidly spread across the country to California in subsequent years. California has historically maintained a comprehensive mosquito-borne disease surveillance and control program including the Mosquito-borne Virus Surveillance and Response Plan, which is updated annually in consultation with local vector control agencies.

Climate change will likely affect vector-borne disease transmission patterns. Changes in temperature and precipitation can influence seasonality, distribution, and prevalence of vector-borne diseases. A changing climate may also create conditions favorable for the establishment of invasive mosquito vectors in California.

For most Californians, WNV poses the greatest mosquito-borne disease threat. Above-normal temperatures are among the most consistent factors associated with WNV outbreaks. Mild winters are associated with increased WNV transmission due, in part, to less mosquito and resident bird mortality. Warmer winter and spring seasons may also allow for transmission to start earlier. Such conditions also allow more time for virus amplification in bird-mosquito cycles, increasing the potential for mosquitoes to transmit WNV to people.

The effects of increased temperature are primarily through acceleration of physiological processes within mosquitoes, resulting in faster larval development and shorter generation times, more frequent mosquito biting, and shortening of the incubation period time required for infected mosquitoes to transmit WNV. During periods of drought, especially in urban areas, mosquitoes tend to thrive more due to changes in stormwater management practices. Mosquitoes in urban areas can reach higher abundance due to stagnation of water in underground stormwater systems that would otherwise be flushed by rainfall. Runoff from landscape irrigation systems mixed with organic matter can also create ideal mosquito habitat. Drought conditions may also force birds to increase their utilization of suburban areas where water is more available, bringing these WNV hosts into contact with urban vectors.

Map: West Nile Virus Activity in California Counties
(Source: California State Hazard Mitigation Plan, 2018)

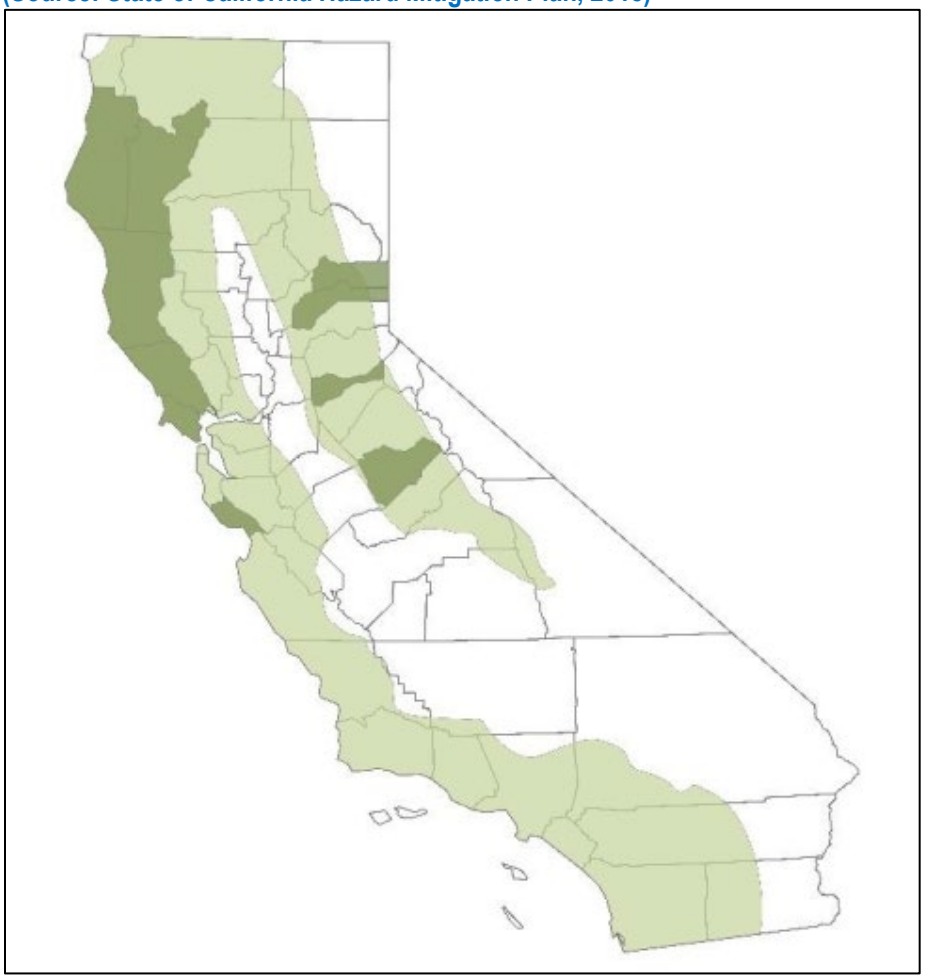


Lyme Disease

Lyme disease is caused by a spirochete (a corkscrew-shaped bacteria) called Borrelia burgdorferi and is transmitted by the Western black-legged tick. Lyme disease was first described in North America in the 1970s in Lyme, Connecticut, the town for which it was then named. Though the tick has been reported from 56 of the 58 counties in California, the highest incidence of disease occurs in the northwest coastal counties and northern Sierra Nevada counties with western-facing slopes. Ticks prefer cool, moist areas and can be found in wild grasses and low vegetation in both urban and rural areas.

The map below shows Western black-legged tick and Lyme disease incidence in California. The Western black-legged tick is commonly found in all green areas shown on the map; dark green areas on the map show where reported Lyme disease cases most often had exposure.

Map: Tick and Lyme Disease Incidence in California
(Source: State of California Hazard Mitigation Plan, 2018)



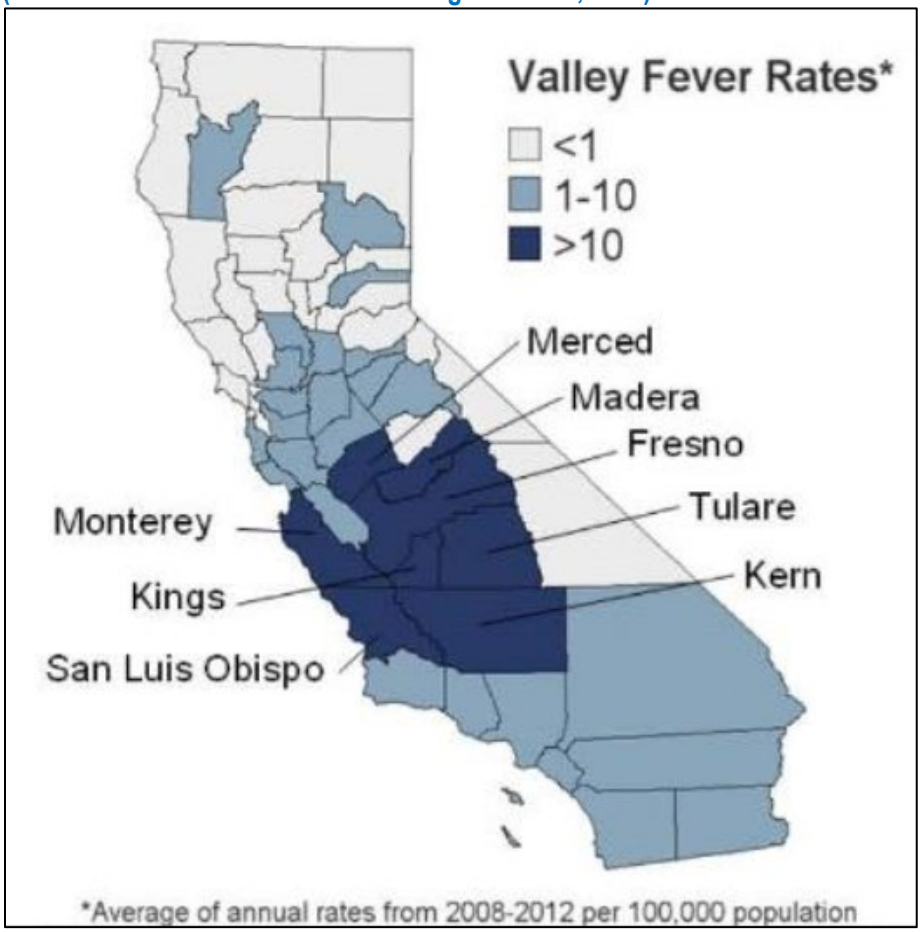
Valley Fever

Valley Fever is caused by Coccidioides, a fungus that lives in the soil in the southwestern United States and parts of Mexico, Central America, and South America. Inhaling the airborne fungal spores can cause an infection called coccidioidomycosis, which is also known as "cocci" or "Valley Fever."

Most people who are exposed to the fungus do not get sick, but some people develop flu-like symptoms that may last for weeks to months. In a very small proportion of people who get Valley Fever, the infection can spread from the lungs to other parts of the body and cause more severe conditions, such as meningitis or even death. Valley Fever cannot spread from person to person.

Most cases of Valley Fever in the U.S. occur in people who live in or have traveled to the southwestern United States, especially Arizona and California. The map below shows the areas where the fungus that causes Valley Fever is thought to be endemic, or native and common in the environment. The full extent of the current endemic areas is unknown and is a subject for further study.

Map: Valley Fever Average Annual Rates by California County
(Source: State of California Hazard Mitigation Plan, 2018)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.

Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Epidemic/Pandemic and Vector-Borne Diseases in the Metro Service Area** below.

Previous Occurrences of Epidemic/Pandemic and Vector-Borne Diseases in the Metro Service Area

The tables below show previous occurrences of West Nile and Influenza cases affecting Los Angeles County:

Table: Confirmed West Nile Infections and Fatalities in Los Angeles County by Year (Source: Acute Communicable Disease Control, County of Los Angeles Public Health, 2019)

Year	Infections	Hospitalizations	Deaths
2015	300	262	24
2016	153	131	6
2017	268	224	27
2018	47	37	3
2019	29	24	3

Table: Los Angeles County Influenza Surveillance Summary, 2018-19 Influenza Season (Source: Influenza in Los Angeles County, County of Los Angeles Public Health, 2019)

Year	Influenza	Respiratory Outbreak (Influenza)	Unknown Respiratory Outbreak	Deaths
2017-2018	12,429	43	113	289
2018-2019	6,429	25	21	125

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.

Q: Does the plan include a general description of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Regional Conditions** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.

Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Regional Conditions** below.

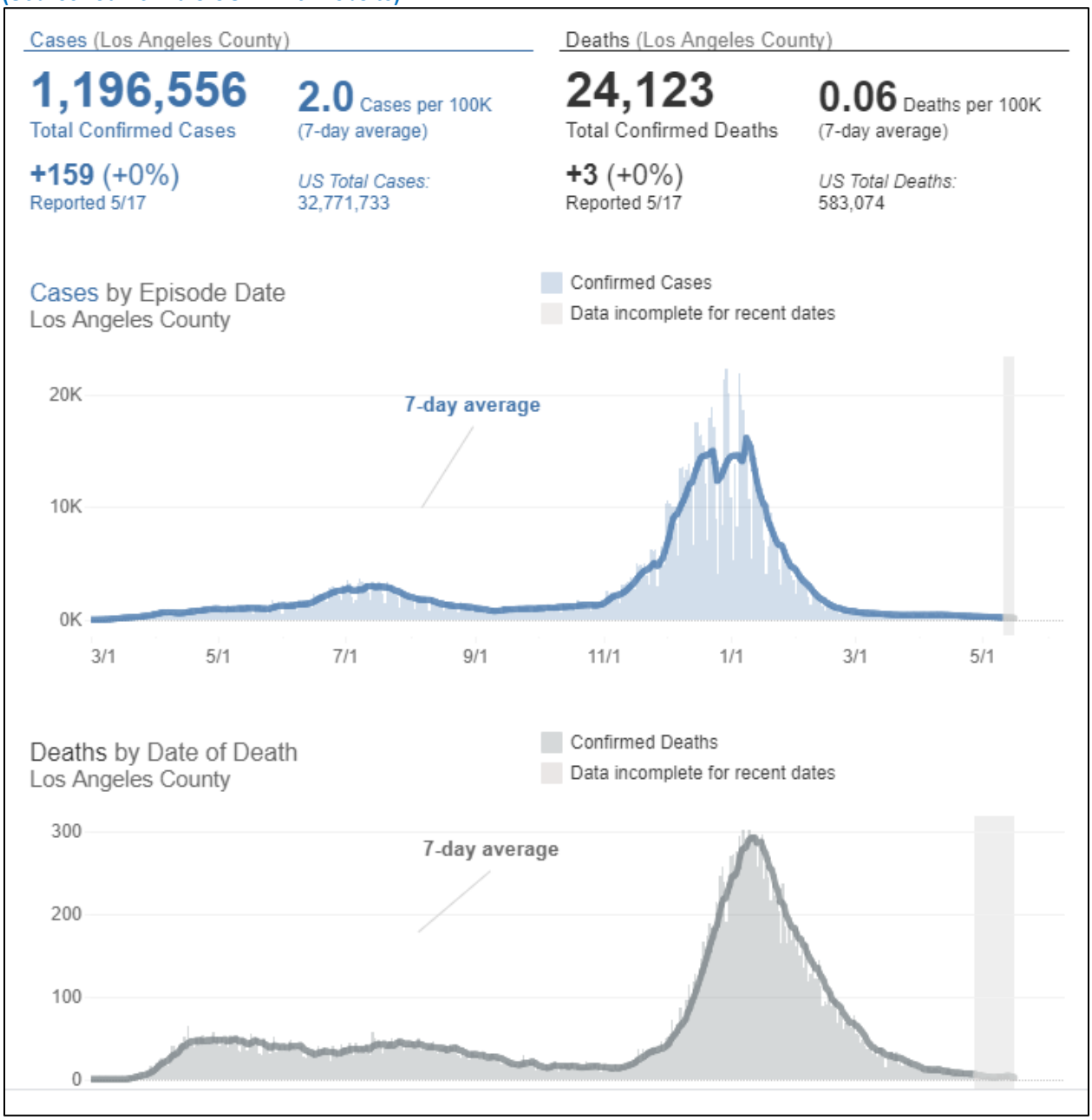
Regional Conditions

Epidemic/Pandemic in Los Angeles County

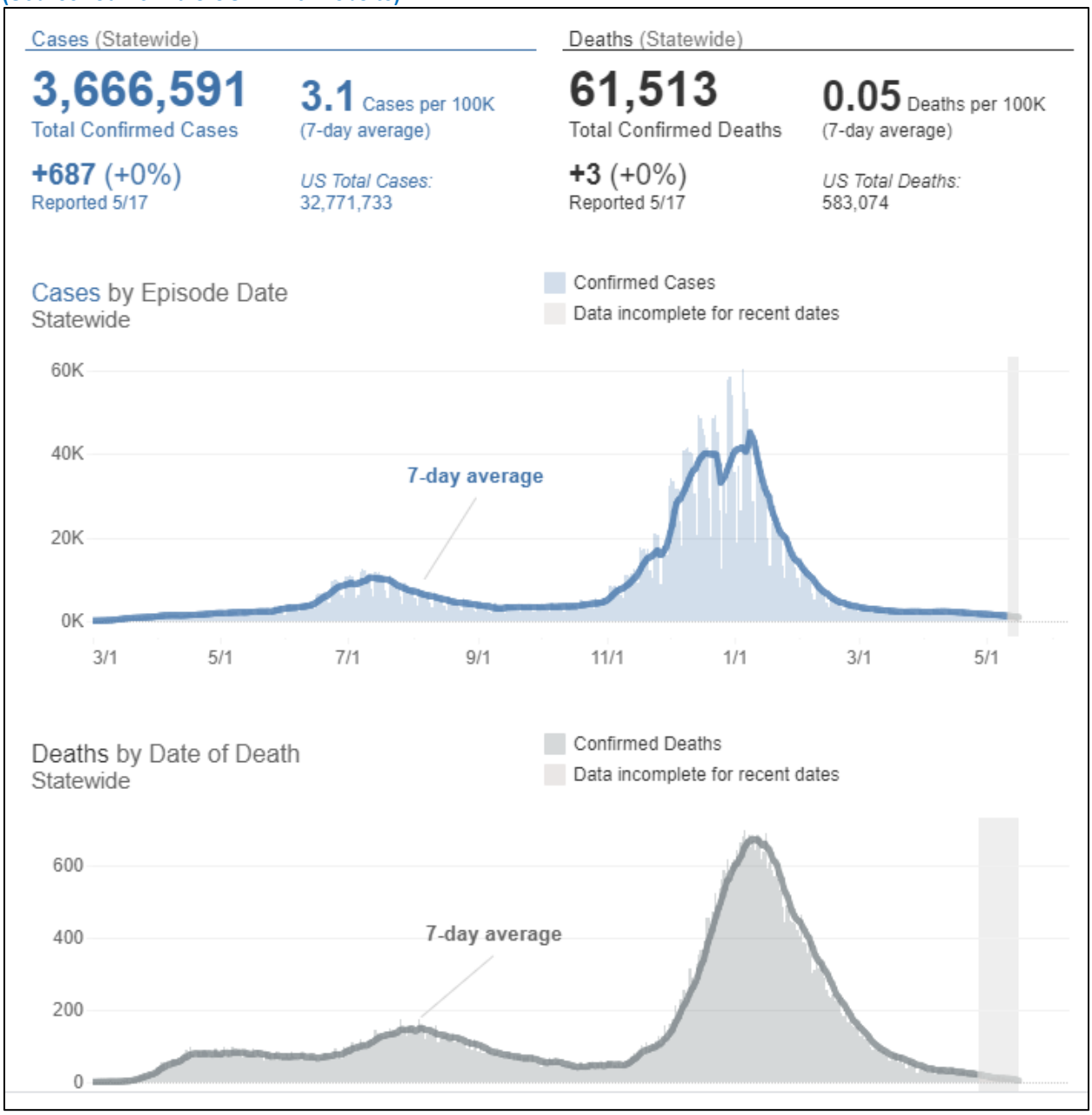
While the variety of influenza, vector borne, and mosquito borne diseases continue to affect the Service Area, COVID-19 currently has the biggest impact. According to California's COVID-19 website as of May 18, 2021, Los Angeles County had 159 new cases reported, contributing to the

1,196,556 total cases reported. COVID related deaths have taken 24,123 lives in Los Angeles County. The state of California's data reflects a total of 3,666,591 cases and 61,513 deaths.

Graph: Daily Cases and Deaths by Episode Date: COVID-19 – Los Angeles County (Source: California's COVID-19 Website)



Graph: Daily Cases and Deaths by Episode Date: COVID-19 – State of California (Source: California's COVID-19 Website)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.

Q: Is there a description of each hazard's impacts on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii))

A: See **Impact of Epidemic/Pandemic and Vector-Borne Diseases in the Metro Service Area** below.

Impact of Epidemic/Pandemic and Vector-Borne Diseases in the Metro Service Area

Based on the risk assessment, it is evident that Epidemic/Pandemic and Vector-Borne Diseases will continue to have potentially devastating economic impacts to the Metro Service Area. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life
- ✓ Disruption of public infrastructure
- ✓ Disruption of the educational process
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Closure of businesses and public services
- ✓ Reduction of transportation services

PART III: MITIGATION STRATEGIES

Mitigation Strategies

Overview of Mitigation Strategy

As the cost of damage from disasters continues to increase nationwide, Metro recognizes the importance of identifying effective ways to reduce vulnerability to disasters. Mitigation Plans assist communities in reducing risk from natural hazards by identifying resources, information and strategies for risk reduction, while helping to guide and coordinate mitigation activities at Metro facilities.

The plan provides a set of action items to reduce risk from hazards through education and outreach programs, and to foster the development of partnerships. Further, the plan provides for the implementation of preventative activities.

The resources and information within the Mitigation Plan:

1. Establish a basis for coordination and collaboration among agencies and the public in the Metro service area;
2. Identify and prioritize future mitigation projects; and
3. Assist in meeting the requirements of federal assistance programs

The Mitigation Plan is integrated with other plans including the Metro System Security Emergency Preparedness Plan (SEPP) and Facilities Maintenance Plan as well as department-specific standard operating procedures.

Mitigation Measure Categories

Following is FEMA's list of mitigation categories. The activities identified by the Planning Team are consistent with the six broad categories of mitigation actions outlined in FEMA publication 386-3 *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies*.

- ✓ **Prevention:** Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and storm water management regulations.
- ✓ **Property Protection:** Actions that involve modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- ✓ **Public Education and Awareness:** Actions to inform and educate citizens, property owners, and elected officials about hazards and potential ways to mitigate them.

  Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- ✓ **Natural Resource Protection:** Actions that, in addition to minimizing hazard losses preserve or restore the functions of natural systems. Examples include sediment and

erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

- ✓ **Emergency Services:** Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and protection of critical facilities.
- ✓ **Structural Projects:** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, levees, floodwalls, retaining walls, and safe rooms.

Q&A | ELEMENT C. MITIGATION STRATEGY | C3
Q: Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))
A: See **Goals** below.
Q&A | ELEMENT D. MITIGATION STRATEGY | D3
Q: Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))
A: See **Mitigation Actions Matrix** below.

Goals

The Planning Team established goals based on the risk assessment that represent a long-term vision for hazard reduction and enhanced mitigation capabilities.

Each goal is supported by mitigation action items. The Planning Team developed these action items through its knowledge of the local area, risk assessment, review of past efforts, identification of mitigation activities, and qualitative analysis.

The five mitigation goals and descriptions are listed below.

Protect Life and Property

Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural, human-caused, and technological hazards.

Improve hazard assessment information to make recommendations for avoiding new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural, human-caused, and technological hazards.

Increase Public Awareness

Develop and implement education and outreach programs to increase public awareness of the risks associated with natural, human-caused, and technological hazards.

Provide information on tools; partnership opportunities, and funding resources to assist in implementing mitigation activities.

Protect Natural Systems

Support management and land use planning practices with hazard mitigation to protect life.

Preserve, rehabilitate, and enhance natural systems to serve hazard mitigation functions.

Promote Partnerships and Implementation

Strengthen communication and coordinate participation with public agencies, riders, non-profit organizations, business, and industry to support implementation.

Encourage leadership within Metro and public organizations to prioritize and implement local and regional hazard mitigation activities.

Enhance Emergency Services

Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.

Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

Coordinate and integrate hazard mitigation activities where appropriate, with emergency operations plans and procedures.

Q&A | ELEMENT C. MITIGATION STRATEGY | C5a.
Q: Does the plan explain how the mitigation actions and projects will be prioritized (including cost benefit review)? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii)) **A:** See **Benefit/Cost Ratings** and **Priority Rating** below.

Benefit/Cost Ratings

The benefits of proposed projects were weighed against estimated costs as part of the project prioritization process. The benefit/cost analysis was not of the detailed variety required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A less formal approach was used because some projects may not be implemented for up to 10 years, and associated costs and benefits could change dramatically in that time. Therefore, a review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to the costs and benefits of these projects.

Cost ratings were defined as follows:

> **High:** Existing jurisdictional funding will not cover the cost of the action item so other sources of revenue would be required.
>
> **Medium:** The action item could be funded through existing jurisdictional funding but would require budget modifications.
>
> **Low**: The action item could be funded under existing jurisdictional funding.

Benefit ratings were defined as follows:

High: The action item will provide short-term and long-term impacts on the reduction of risk exposure to life and property.

Medium: The action item will have long-term impacts on the reduction of risk exposure to life and property.

Low: The action item will have only short-term impacts on the reduction of risk exposure to life and property.

Q&A | ELEMENT D. MITIGATION STRATEGY | D3
Q: Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3)) **A:** See **Priority Rating** below.

Priority Rating

The Planning Team utilized the following Priority Rating method. Designations of "High", "Medium", and "Low" priority have been assigned to all of the action item using the following criteria:

Does the Action:
- solve the problem?
- address Vulnerability Assessment?
- reduce the exposure or vulnerability to the highest priority hazard?
- address multiple hazards?
- benefits equal or exceed costs?
- implement a goal, policy, or project identified in the General Plan or Capital Improvement Plan?

Can the Action:
- be implemented with existing funds?
- be implemented by existing state or federal grant programs?
- be completed within the 5-year life cycle of the LHMP?
- be implemented with currently available technologies?

Will the Action:
- be accepted by the community?
- be supported by community leaders?
- adversely impact segments of the population or neighborhoods?
- require a change in local ordinances or zoning laws?
- positive or neutral impact on the environment?
- comply with all local, state and federal environmental laws and regulations?

Is there:
- sufficient staffing to undertake the project?
- existing authority to undertake the project?

As mitigation action items were updated or written the Planning Team, representatives were provided worksheets for each of their assigned action items. Answers to the criteria above determined the priority according to the following scale.

- 1-6 = Low priority
- 7-12 = Medium priority
- 13-18 = High priority

Q&A | ELEMENT C. MITIGATION STRATEGY | C1b.
Q: Does the plan document each jurisdiction's ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C4a.
Q: Does the plan identify and analyze a comprehensive range (different alternatives) of specific mitigation actions and projects to reduce the impacts from hazards? (Requirement §201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C4b.
Q: Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction? (Requirement §201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C4c.
Q: Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C5a.
Q: Does the plan explain how the mitigation actions and projects will be prioritized (including cost benefit review)? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C5b.
Q: Does the plan identify the position, office, department, or agency responsible for implementing and administering the action/project, potential funding sources and expected timeframes for completion? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT D. MITIGATION STRATEGY | D1
Q: Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT D. MITIGATION STRATEGY | D2
Q: Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT D. MITIGATION STRATEGY | D3
Q: Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3)) **A:** See **Mitigation Actions Matrix** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C6c.
Q: The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts. (Requirement §201.6(c)(4)(ii)) **A:** See **Mitigation Actions Matrix** below.

Mitigation Actions Matrix

Following is **Table: Mitigation Actions Matrix** which identifies the existing and future mitigation activities developed by the Planning Team.

Table: Mitigation Actions Matrix: Bus Facilities and Property Maintenance (BFPM)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1														
MH-2														
Earthquake														
EQ-1 Protect Critical facilities and Infrastructure.	BFPM	GF	5-20 years	GF	X					M	H	H	Y	Terminals 47 & 48 are not up to the latest building codes. There are pedestrian bridges that span over the freeways and could potentially collapse.

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Flood														
FLD-1 Improve Stormwater Drainage System Capacity	BFPM	GR	5-10 years	GF	X				X	L	M	M	Y	With “El Nino” type storms, water has to be removed from several divisions. Terminal 19’s lower level is in jeopardy of flooding. Pumps may be overwhelmed
Wildfire														
WF-1														
WF-2														
Landslide														
LND-1 Monitor and address Subsidence Hazard Areas	BFPM	GR	5-10 years	GF	X					L	M	M	Y	There is gradual settling of the

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
														surface at Terminal 48. This is the upper level (West Bound) where vehicles travel & a bus stop resides.
LND-2 Stabilize Erosion Hazard Areas	BFPM	GF	5-10 years	GF	X					L	M	H	Y	Terminal 42 (Echo Park) sits next to a hillside. The hillside needs securing and could slide with heavy rains.
Windstorms														
WND-1 Numerous trees at various locations vulnerable to severe wind.	BFPM	GF	1-10 years	GF	X					L	L	M	Y	Trim or replace trees susceptible to falling over

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
														causing additional infrastructure damage.
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1 Retrofit Water Supply Systems	BFPM	GF	5-20 years	GF	X					L	L	H	Y	To save water timers can be installed on the steamers. Occasionally they run all day.
CC-2 Extreme Temperature – Improve ventilation system, for patrons at the lower level of the bus terminal	BFPM	GR	5-20 years	GF	X					L	L	M	Y	

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-3 In the future, hydration station signage should be integrated into bus station designs.	BFPM	GF	5-10 years	GF	X					L	M	H	Y	
CC-4 Examine the feasibility of decreasing intervals for buses and rails in areas likely to experience up to 95 days a year above 95 F.	BFPM	GF	5-10 years	GF	X					L	M	H	N	
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Bus Operations (BO) and Rail Operations (RO)

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Capital Project 202338 - Bus Division Improvement. Specifically, repairing bus facilities and divisions. Currently working on the roofs at divisions 5 and 7. Division 5 has asbestos in the HVAC tape and the roof was leaking excessively. Division 7 also has leaking and asbestos in the roofing at the fuel building.	BO – Transportation Operations	GR	1-5 years	GR	X					H	H	H	Y	Capital Project 202338
MH-2 Rail Facilities Project 204142 is for rail facilities improvements including: + replacing the leaking roofs at rail divisions 11, 22, and 60. All three locations have asbestos in the roofing materials.	RO – Rail Transportation Operations	GR	1-5 years	GR	X					H	H	H	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
+ Divisions 11 and 22 also need new HVAC systems due to freon leaks. Currently Division 22 has no working HVAC due to leaking.														
MH-3 Project 202213 for removing leaking underground fuel and oil storage tanks.	BO – Transportation Operations	GR	1-5 years	GR	X					H	H	H	Y	
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1														
FLD-2														
Wildfire														
WF-1														
WF-2														
Landslide														
LND-1														
LND-2														
Windstorms														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Environmental Compliance and Sustainability (ECS)

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Install strobe light for emergency generators at all facilities, as has been piloted at Division 2, to alert site when backup power starts up.	Facilities Maintenance	GF	1-5 years	CAAP	X	X			X	H	H		Y	2019 CAAP Risk Assessment Matrix
MH-2 Protection of above ground storage tanks.	Environmental Compliance and Sustainability	GF	1-5 years	GF	X		X		X	M	H	M	Y	
MH-3 Update and implement Inclement Weather Plan	Operations	GF	1-3 years	GF	X	X	X	X	X	H	H	L		2015 Draft Inclement Weather Plan
MH-4 Collaborate with municipalities to enhance resilience of vulnerable transit stops and routes	Planning & Engineering	GR	1-30 years	CAAP	X	X	X	X	X	M	H	H	Y	2019 CAAP
MH-5 Integrate climate resilience as part of project planning and design for Measure M transit projects	Planning & Engineering	GR	1-30 years	CAAP	X	X	X	X	X	H	H	M	Y	2019 CAAP

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
MH-6 Increase redundancy in power systems, installing additional backup generators and establishing micro grids at Metro facilities.	Facilities Engineering, Environmental Compliance and Sustainability, Engineering	GR	1-10 years	CAAP	X				X	H	H	M	Y	2019 CAAP
MH-7 Increase use of vegetation on Metro property to improve air quality, water quality, carbon storage and community health.	Facilities Engineering, Environmental Compliance and Sustainability	GF	1-30 years	CAAP, GF			X			L	M	M	Y	2019 CAAP
MH-8 Ensure Sustainable Acquisition Program accounts for climate resilience of materials (i.e., heat-, water-, fire-resilient materials).	Environmental Compliance and Sustainability, Vendor Contract Management	CAAP	1-5 years	CAAP	X	X	X	X		H	H	L		2019 CAAP
MH-9 Revise insurance coverage for natural hazards to align with predicted impacts from climate hazard assessment.	Risk, Safety, and Asset Management	Unknown	Unknown	CAAP	X				X	L	H	L		2019 CAAP
MH-10 Develop comprehensive enterprise-	ITS	GF	1-5 years	GF, CAAP	X		X	X	X	H	H	L		2019 CAAP

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
wide data management and spatial data database and program, inclusive of weather and asset maps, that are easily accessible and regularly updated to aid quick response to risks.														
MH-11 Develop Climate Resilience Implementation Framework to categorize and prioritize climate resilience investments in the system.	Environmental Compliance and Sustainability	CAAP	5-25 years	CAAP	X	X	X	X	X	H	H	M	Y	2019 CAAP
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1 Install permeable pavement at facilities (such as Divisions 21, 5, and 11) and stations (such as the Westlake/MacArthur Park, Hollywood/vine, and Del Amo stations) with high exposure	Environmental Compliance and Sustainability	GR	1-30 years	CAAP, GR	X	X	X	X	X	M	H	H	Y	2019 CAAP

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
risk for heavy precipitation and riverine flooding to alleviate inundation impacts and recharge aquifers.														
FLD-2 Improve stormwater management systems at facilities (such as Divisions 21, 5, and 11) and stations (such as the Westlake/MacArthur Park, Hollywood/vine, and Del Amo stations) with high exposure risk for heavy precipitation and riverine flooding to alleviate inundation impacts and recharge aquifers.	Engineering & Facilities Maintenance	GR	1-30 years	CAAP, GR	X	X	X	X	X	M	H	H	Y	2019 CAAP
FLD-3 Implement green infrastructure to capture and reuse stormwater runoff at assets with high exposure risk for heavy precipitation and riverine flooding.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP, GR	X	X	X	X	X	M	H	H	Y	2019 CAAP

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
FLD-4 For assets or locations where flooding occurs often, or that are located in a flood zone, relocate assets to other areas, elevate, or incorporate low-impact development to avoid flood damage.	Environmental Compliance and Sustainability, Facilities Maintenance, Engineering	GF/ GR	1-30 years	CAAP, GF, GR	X	X	X	X	X	M	H	M	Y	2019 CAAP Critical Asset Identification Interview
Wildfire														
WF-1														
WF-2														
Landslide														
LND-1 Improve stabilization of slope at Division 21	Facilities Maintenance	GF/ GR	Unknown	CAAP	X		X		X	H	H		Y	2019 CAAP Critical Asset Identification Interview; 2019 CAAP Risk Assessment Matrix
LND-2 Implement erosion and mudslide control devices for assets at extreme risk to landslide and mudslides.	Engineering & Facilities Maintenance	GF/ GR	Unknown	CAAP	X		X		X	H	H	M	Y	2019 CAAP Risk Assessment Matrix

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
LND-3 For areas adjacent to non-Metro landslide-prone areas, develop P3 to protect infrastructure.	OEI	GR	15 years	GR	X			X		L	M	H	Y	
LND-4 Map and Assess Vulnerability to Erosion.	ECSD	GR	1 year	GR	X	X		X		M	M	L		
LND-5 Stabilize Erosion Hazard Areas. Specifically, Blue Line.	Wayside Engineer	GR	5 years	GR	X		X			L	M	H	Y	
Windstorms														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1 Develop a coastal hazard management plan for Metro assets at risk to sea level rise, coordinating with local municipalities with Local Coastal Programs (LCPs).	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X	X	X	X	X	L	H	H	Y	2019 CAAP

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-2 Convert Metro's bus fleet to Zero Emission Buses (ZEB) by 2030. Specifically, transition the Metro Orange Line and Metro Silver Line to ZEBs by 2020 and 2021, respectively. Develop a Zero-Emissions Bus Master Plan for accomplishing a 100% ZEB Fleet by 2030.	Vehicle Acquisition	GF/ GR	1-10 years	GR	X	X	X	X	X	H	H	M	Y	Board Report #2019-0458, Metro Bus Fleet Forecast and Zero Emission Bus Program Update; 2019 CAAP
CC-3 Replace non-revenue vehicles with Battery Electric Vehicles (BEVs)	Maintenance Administration, Non-Revenue Fleet Maintenance	GF/ GR	1-30 years	CAAP	X	X	X	X	X	L	H	M	Y	2019 CAAP; draft Electric Vehicle Implementation Plan
CC-4 Wayside Energy Storage Substation (WESS) Installation	Rail Mow Engineering	GR	1-30 years	CAAP	X	X	X	X	X	L	L	L	Y	2019 CAAP; Solis et al. 2015. Saving Money Every Day: LA Metro Subway Wayside

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
														Energy Storage Substation.
CC-5 Expand Use of Renewable Energy	Environmental Compliance and Sustainability	GF	1-15 years	CAAP	X		X	X	X	H	H	L		2019 CAAP
CC-6 Install up to 51.2 MW of new solar photovoltaics on-site Metro existing facilities	Environmental Compliance and Sustainability	GR	1-10 years	CAAP			X	X	X	M	M	M	Y	2019 CAAP; LA Metro. 2018. LA Metro Solar Potential Square Footage Extraction.; LA Metro. 2018. Photovoltaic Cost Benefit Analysis.
CC-7 Install retrofits of low-water sanitary fixtures that require less water and energy in existing	Environmental Compliance and Sustainability	GR	1-10 years	CAAP			X	X	X	L	L	M	Y	2019 CAAP; 2010 Water Action Plan; Hendrickson,

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
buildings and new low-water fixtures in new buildings.														et al. Impacts of Groundwater Management on Energy Resources and Greenhouse Gas Emissions in California; Los Angeles Department of Water and Power (LADWP). 2015. Urban Water Management Plan
CC-8 Install non-potable recycled water systems on existing and new facilities.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X		X	X	X	L	L	M	Y	2019 CAAP; 2010 Water Action Plan;

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
														Hendrickson, et al. Impacts of Groundwater Management on Energy Resources and Greenhouse Gas Emissions in California; Los Angeles Department of Water and Power (LADWP). 2015. Urban Water Management Plan

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-9 Replace interior and exterior lighting fixtures with LEDs at facilities.	Environmental Compliance and Sustainability	GR	1-10 years	CAAP					X	L	M	M	Y	2019 CAAP; Division 18 ASHRAE Audit
CC-10 Install electric heating systems at facilities.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X		X		X	L	H	M	Y	2019 CAAP
CC-11 Replace appliances with high-efficiency electric appliances at facilities.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X		X		X	L	L	M	Y	2019 CAAP
CC-12 Install EV charging infrastructure at Metro facilities.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X	X		X		L	M	H	Y	2019 CAAP; 2019 Metro EV Implementation Plan; LA Metro 2017 Average Vehicle Rider Report
CC-13 Replace Gold, Green, Blue, and Expo Line overhead catenary systems with spring tensioner system.	Systems Engineering	GR	1-30 years	CAAP, GR	X	X		X	X	H	H	H	Y	2019 CAAP; Metro Light Rail Resiliency

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
														Project FY 2016 TIGER Discretionary Grant Application
CC-14 Increase shading of 33 railway stations identified as extreme risk to extreme heat.	Environmental Compliance and Sustainability	GR	1-30 years	CAAP	X	X	X	X	X	M	H	H	Y	2019 CAAP Risk Assessment Matrix
CC-15 Partner with local jurisdictions to implement bus shelters at high priority bus stops/hubs.	Countywide Planning, Transit Oriented Communities	GR	1-30 years	CAAP	X	X		X		H	H	H	Y	2019 CAAP
CC-16 Plant trees around transit stops, parking lots, yards and other open-space areas to provide shading at assets, facilities, locations, and stations identified as extreme and high risk to extreme heat.	Facilities Maintenance	GR	1-30 years	CAAP	X	X	X	X		H	H	M	Y	2019 CAAP
CC-17 Develop a plan for future drought events.	ECSD	GR	1 year	GR	X	X		X		M	M	L		Water Action Plan

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-18 Identify at-risk underground equipment and design for critical temperatures and /or cooling systems.	Program Management	GR	X	GR						H	H	H	Y	
CC-19 Install large fans at division maintenance facilities.	Facilities Maintenance	GF	10 years	GF	X					M	H	M	Y	
CC-20 Protect Buildings and Infrastructure from sea level rise. Specifically, Blue Line /Long Beach.	Facilities Engineering	GR	10 years	CAAP	X			X		L	M	H	Y	CAAP 2019
CC-21 Install fans or air circulation systems for patrons in underground stations.	Program Management	GR	10 years	CAAP	X	X				H	H	H	Y	CAAP 2019
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Emergency Management (EM)

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Certify staff to be qualified to conduct inspections of Metro buildings and infrastructure after an earthquake or other destructive event occurs.	Emergency Management	GR	2-10 years	GR	X				X	M	H	H	Y	
MH-2 Analyze and establish alternate water supply for divisions and headquarter for use following a disaster. It is generally estimated that following a M7.0 earthquake that water lines will be damaged if not severed. Metro desires to plan for an alternate source of water supply to satisfy needs for a week.	Emergency Management	GR	2-10 years	GR	X				X	M	H	H	Y	
MH-3 Geographically locate emergency response	Emergency Management	GR	2-4 years	GR	X				X	M	H	M	N	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
equipment, supplies and personal protective equipment (PPE) for all Metro responders.														
MH-4 Develop specifications for mobile emergency operations center response vehicle.	Emergency Management	GR	2-5 years	GR	X				X	M	H	H		
MH-5 Maintain and update a Continuity of Operations Plan. The purpose of the plan is to ensure that capability exists to continue Metro's essential governmental functions across a wide range of potential emergencies. A COOP will be maintained and updated for each of the organizational entities within Metro.	Emergency Management	GR	2-5 years	GR	X	X	X	X	X	H	H	H	Y	
MH-6 Investigate the possibility of working with The Boring Company to install batteries underground that														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
could be utilized in emergencies.														
Earthquake														
EQ-1 Purchase and install an agency-wide earthquake early warning system to include notification and/or electronic automations at sites, on bus/rail system, and dash boards of impending ground shaking.	Emergency Management	GR	3-6 years	GR	X	X		X	X	M	H	H	Y	
EQ-2 Conduct study to assess Metro existing facilities for non-structural retrofitting.	Emergency Management	GR	2-10 years	GR	X					M	H	H	Y	
EQ-3 Conduct a seismic safety inventory of all Metro critical assets (i.e., bridges, tunnels, stations, buildings) to determine if seismic retrofitting is necessary to the most current standards.	Emergency Management	GR	2-6 years	GR	X					M	H	H	Y	
EQ-3 Provide emergency power to all Metro critical	Emergency Management	GR	2-5 years	GR	X			X	X	M	H	H	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
facilities in the event of a prolonged power failure.														
Flood														
FLD-1 – Purchase equipment (i.e., sump pumps, sandbags, etc.) to minimize impact to flooding near or adjacent to bus/rail revenue services.	Emergency Management	GR	2-6 years	GR	X				X	M	H	H		
FLD-2														
Wildfire														
WF-1 Increase the tree trimming and add fire-safe vegetation around all Metro bus and rail service areas that abut the wild land-urban interface.	Emergency Management	GR	4-6 years	GR	X					L	M	H		
WF-2														
Landslide														
LND-1														
LND-2														
Windstorms														
WND-1														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1 Maintain and improve upon existing COVID mitigation protocols based on: + Emphasizing individual responsibility for implementing recommended personal-level actions +Minimizing disruptions to daily life to the extent possible and ensuring access to health care and other essential services.	Emergency Management	GR	Ongoing	GR	X	X		X	X	M	H	H	Y	
EPV-2 Maintain Healthy Environments:	Emergency Management,	GR	Ongoing	GR	X	X		X	X	M	H	H	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
+Regularly clean high-touch surfaces and objects. +Ensure ventilation systems operate properly and increase circulation of outdoor air as well as utilizing air filtration and purification methodologies. +Ensure all water systems are safe to use. +Modify layouts to promote social distance of at least 6 feet between people – especially for persons who do not live together. +Install physical barriers and guides to support social distancing if appropriate.	Facilities Maintenance, General Services													
EPV-3 Maintain and update pandemic Plan and develop and deliver training module for all employees, to increase	Emergency Management	GR	Ongoing	GR	X	X		X	X	M	H	H		

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
preparedness and awareness of operational response.														

Table: Mitigation Actions Matrix: General Services (GS)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Install new bollards and tilt up barriers for hardening the facility at all parking and building entrances for the safety and security of patrons and employees.	General Services	HMGP, PDM, BRIC	10 years	GR	X	X	X		X	H	H	H	Y	
MH-2 The USG parking garage emergency phone system includes installation of 52 emergency voice/video phone stations for public safety. These will be accessible to our patrons and employees providing Security with voice and video communications enhancing safety within the Gateway Center.	General Services	GR/Phase 1 GR/Phase 2	10 years	GR	X	X	X		X	H	H	H	Y	General Services Capital Projects Phase 1 started in Sept 2019
MH-3 Installation of 37 digital message display	General Services	HMGP, PDM, BRIC	10 years	GR	X	X			X	H	H	H	Y	General Services

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
boards including sign enclosures and electronics throughout the USG garage for public announcements and emergency notifications including lock down periods. General Services will install signs and supporting pathways to bring power and IT connections to 37 locations in the USG parking garage. This new infrastructure will expand notification signal to garage to accommodate digital sign installation for mass notification purposes.														Capital Projects
MH-4 Installation of cat walks and access into the dome area for maintenance and housekeeping. Also adding safety and	General Services	HMGP, PDM, BRIC	10 year	GR	X			X		H	H	H	Y	General Services Capital Projects

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
protection for dome glass cleaning access.														
MH-5 Renovation/replacement of obsolete fire detection system for USG facility. The equipment manufacturer has discontinued the support and services. Replacement is required to comply to fire code (NFPA 72) and maintain compliance for occupancy.	General Services	HMGP, PDM, BRIC	10 year	GR	X	X	X	X	X	H	H	H	Y	General Services Capital Projects
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1 Replacement of all horizontal and vertical drainage piping for the storm drain, overflow storm drain and the sewer drain piping within the Gateway	General Services	HMGP, PDM, BRIC	10 years	GR	X		X			H	H	H	Y	General Services Capital Projects

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
building, parking structure and the east portal.														
FLD-2Enlarge sump tanks and scale up the size of the pumps in the P-4 level Parking garage to mitigate flooding due to the flood zone that the parking structure is in.	General Services	HMGP, PDM, BRIC	10 years	GR	X					H	H	H	Y	Flood Zoning Map
Wildfire														
WF-1														
WF-2														
Landslide														
LND-1														
LND-2														
Windstorms														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-1 Reconfigure the Gateway building's data center to reduce energy consumption by placing IT systems in a centralized location. Electrical, lighting, controls, and cooling systems will be reconfigured in conjunction with the data center IT based systems.	General Services	HMGP, PDM, BRIC	10 years	GR			X			H	H	H	Y	General Services Capital Projects
CC-2														

Table: Mitigation Actions Matrix: Information Technology (IT)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
Ensure power stability for communications at all Bus and Rail Divisions with uninterruptible power systems to support mission critical communications during power-outage.	Information Technology	GF	1-10 years	GF	X				X				Y	
Ensure power stability for Bus & Rail Divisions critical operating systems during power-outage.	Information Technology	GF	1-10 years	GF	X				X				Y	
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1														
FLD-2														
Wildfire														
WF-1														
WF-2														
Landslide														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
LND-1														
LND-2														
Windstorm														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Maintenance of Way Engineering (MOW Eng)

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Install generator receptacles at street level with automatic transfer switch (ATS) and redistribution of backup power loads on all underground stations. The underground in the LA area accumulates explosive and toxic gases that must be monitored and fans to circulate the air. Current design has for two external power feeds with four hours of battery backup connected to a very small collection of systems. Providing for a generator receptacle would allow a generator to quickly be connected to power the underground system. Additionally, the low voltage power distribution system	MOW Eng	GR			X				X	M	H	H	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
would be modified to increase the amount of systems on battery backup.														
MH-2 Maximize resiliency of the network communication architecture, Metro wishes to close the fiber optic loop to create a survivable dual backbone network		GF			X			X	X	H	M	M		
MH-3 Capture AS-Is configuration of railroad by performing a 3D laser scan of system and rooms.		GF			X				X	M	M	M		
MH-4 Install a backup generator at Division 24 – Monrovia Yard for the ability to power the yard and facilities in the event of long-term power loss. Division 24 is currently the only heavy maintenance facility for the entire light rail system. Additional infrastructure and electrical	MOW Eng / Facilities Maintenance	GF			X				X	H	M	M	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
work would have to be installed to support the site-wide generator.														
MH-5 Elevate Blue Line to separate rail line from traffic and flood plain	MOW Eng									H	H	H		
MH-6 Perform emergency restoration study to identify equipment, procedures, and action required to restore rail service (such as traction power, rail, com, or track) in the event of some type incident.	MOW Org	GR						X	X	H	H	L		
Earthquake														
EQ-1 Adopt and Enforce Building Codes to Protect Against Damaging Earthquakes.					X					H	H	H	Y	
EQ-2 Incorporate Earthquake Mitigation into Metro planning.					X					H	H	M	Y	
Flood														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
FLD-1 There are a few EXPO Traction Power substation that require sand bagging of doors when it rains. To protect the property from flooding damage, it is recommended that flood prevention measures be implemented at these locations.		GR			X				X	L	M	H		
FLD-2 Form partnerships to support floodplain management.		GF		GF	X			X		M	M	L	Y	
FLD-3 Conduct regular maintenance for drainage systems and flood control structures.		GF/ GR		GF/GR	X					H	H	M	Y	
Wildfire														
WF-1 Map and assess vulnerability to wildfire. Maintain and update the Wildfire Critical Facilities Map included in the 2020 Hazard Mitigation Plan.		GR			X			X	X	L	L	H	Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
WF-2 During periods of high winds and fire conditions impacting the Monrovia yard, it is vulnerable to outages through the new PSPS program. To keep the yard function to supply rail vehicles, the yard requires a generator of sufficient size to power the yard.		GR	1 year	GR	X			X	X	H	H	H	Y	
Landslide														
LND-1 There is a hillside slope that is owned by LA Metro and LA County along the Gold Line near Highland Park and South Pasadena (CM 593) that needs stabilized to prevent the continual sliding into our ROW during rainstorms.		GF			X		X	X		M	M	M		Hazard Analysis
LND-2 There is a hillside slope that is owned by LA Metro along the Gold Line near pocket track (CM 510 – 520)		GF			X		X			M	M	M		

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
that needs stabilized to prevent the continual sliding into our ROW during rainstorms.														
LND-3 Utilize and Update the Landslide Critical Facilities Map in the 2020 Hazard Mitigation Plan		GF		GF	X		X			H	H	L		
Windstorms														
WND-1 Assess Vulnerability to Severe Wind. Perform an assessment.		GF		GF	X					H	M	L		
Tsunami														
TSU-1 Map and Assess Vulnerability to Tsunami. Utilize and update the Tsunami Critical Facilities Map in the 2020 Hazard Mitigation Plan.		GF	yearly	GF	X			X		L	M	L		
TSU-2 Management Metro Development in Tsunami Hazard Area.		GF	Ongoing	GF	X			X					Y	
Climate Change														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-1 The summer temperatures along the Gold Line are rising and the weight stacks which maintain tension along the OCS do not have sufficient range for these increased temperatures. This project would replace the weight stacks with a spring tensioning system that can handle the higher temperatures.		GR	1-10 years	GR	X			X	X	M	M	M	Y	
CC-2 Due to increase in heat, air conditioners and other heat reduction Improvements should be performed at control boxes, signal huts, COM rooms and other wayside structures which house electronics.		GF	1-10		X	X			X	M	M	M		
CC-3 Assess vulnerability to drought.		GF	1-10					X		H	M	L		

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants)	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, General Fund, Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-4 Evaluate HVAC capacity of existing cabinets used in train control systems. Upgrade as required.		GF	1-10							H	H	M		
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Program Management (PM)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Certify staff to be qualified to conduct inspections of Metro buildings and infrastructure after an earthquake or other destructive event occurs.	Program Management - Engineering	HMGP, PDM, BRIC	2-10 years	GR	X				X	M	H	H	Y	
MH-2 Analyze and establish alternate water supply for divisions and headquarter for use following a disaster. It is generally estimated that following a M7.0 earthquake that water lines will be damaged if not severed. Metro desires to plan for an alternate source of water supply to satisfy needs for a week.	Program Management - Engineering	HMGP, PDM, BRIC	2-10 years	GR	X				X	M	H	H	Y	
Earthquake														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
EQ-1 Map and assess Metro facilities, aerial structures, and tunnels vulnerable to seismic hazards and subsidence.	Program Management - Engineering	HMGP, PDM, BRIC	2-10 years	GR	X				X	H	H	H	Y	
EQ-2														
Flood														
FLD-1 Replacement of 12 miles (6 miles in each direction) of median barrier along Gold Line at Interstate 210 freeway. This project is required to prevent future freeway vehicles from breaching into Metro right-of way. Twelve such incidents have occurred to date (approximately 2 per year). Replace existing median barrier with a taller/stronger one. Under normal	Program Management - Highways	GF	3-5 years	CIP	X					H	M	L		CIP

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
conditions, drivers are having issues driving through the “S” curve with the 2 foot buffer between the HOV lane and the median barrier. This condition is worsened during rainstorms and if flooding occurs.														
FLD-2														
Wildfire														
WF-1 Utilize and update the map showing Metro facilities and infrastructure vulnerabilities to wildfire. Map was created for the 2020 Hazard Mitigation Plan (Wildfire Hazard Specific Section).	Program Management - Engineering	GF	Ongoing	GF	X	X	X			M	H	L	Y	
WF-2														
Landslide														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
LND-1														
LND-2														
Windstorms														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Rail Facilities Maintenance (RFM)

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard Action Item														
MH-1 Purple Line secure, treat and resurface to prevent tar intrusion, from La Brea Tar Pits.	RFM	GF	10 years		X		X			M	H	H	Y	
MH-2 Continue tree trimming along all lines.	RFM	GF	Ongoing		X		X			M	M	M	Y	
Earthquake														
EQ-1 Reduce potential damage to critical facilities and infrastructure from future seismic events through mitigative actions. Specifically, Redline Segment 3.	RFM	GF	10 years											
EQ-2 Seismic Tunnel (Intrusion) at MRL – Segment 3.	RFM	GF	10 years		X		X			M	H	H	Y	
EQ-3 Reduce potential damage to critical facilities and infrastructure from future seismic events through mitigative actions.	RFM	GF	10 years		X								Y	

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Specifically, Rail Operations Command Control														
Flood														
FLD-1 Stop runoff into below grade rail system at MBL/Portal, MRL/Hatches, MRL/ Ancillary, PGL/Ancillary, and East/West Portals.	RFM	GF	10		X			X	X					
FLD-2 Install 75hp sump pump to prevent flooding in system at MRL CP39A.	RFM	GF	10 years		X		X			H	H	H	Y	
FLD-3 Demolish, resurface and treat cross passages to prevent water intrusion at 60+ Red Line cross passages and 6 on Gold Line (MRL/PGL).	RFM	GF	10 years		X		X			M	H	H	Y	
FLD-4 Install sump pumps with generator back-up to avoid flooding ant ground and subterranean levels of Division 13.	RFM	GF	10 years		X								Y	
Wildfire														
WF-1														

Action Item	Coordinating Organization	Funding Source: GF = General Fund, GR = Grants	Timeline	Planning Mechanism: CAAP - Climate Action and Adaptation Plan, GF - General Fund, GR - Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
WF-2														
Landslide														
LND -1 Division 21 hillside stabilization, relocate facility or create a secondary ingress/egress.	RFM	GF	10 years		X		X	X	X	H	H	H	Y	
LND-2														
Windstorm														
WND-1		GF			X					H	H	H	Y	
WND-2		GF			X					H	H	H	Y	
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1 Reduce Impacts to Roadways. Protect roadways at all facilities and Orange Line.	RFM	GF	10 years		X		X							
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Rail Fleet Services (RFS)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Protect Infrastructure and Critical Facilities. Install quick connect emergency generator hookups for Rail Fleet Services at all rail yards and some stations.	RFS	GF, BRIC	2-10 years	GF	X			X	X	L	M	H	Y	
MH-2														
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1														
FLD-2														
Wildfire														
WF-1														
WF-2														
Landslide														
LND-1														
LND-2														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Windstorm														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: Regional Rail (RR)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Maintain over 203 track miles of rail Metro owns in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Regional Rail	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 2-7
MH-2 Maintain over 390k wood and 180k concrete ties metro owns in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	5-30 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 2-25
MH-3 Maintain 112 Metro owned vehicle and 20 pedestrian crossings in a	Metro	HMGP, PDM, BRIC	2-20 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.														Plan, pg. 2-40
MH-4 Maintain over 250 wood and 1 concrete tie turnouts Metro owns in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-20 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 2-51
MH-5 Maintain over 1 million track feet of ballast Metro owns in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to	Metro	HMGP, PDM, BRIC	2-30 years	GR	X		X	X		M	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 2-65

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
move people and goods throughput.														
MH-6 Maintain 135 Metro owned bridges in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	1-20 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-3
MH-7 Maintain 358 Metro owned culverts in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-30 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-3
MH-8 Maintain Tunnel 18 at MP 45.2-45.47 in state of good repair that is used on a daily basis by other commuter, intercity and	Metro	HMGP, PDM, BRIC	1-15 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-40

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
freight rail operators to move people and goods throughput.														
MH-9 Maintain Tunnel 19 at MP 44.98-45.05 in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-40
MH-10 Maintain Tunnel 25 at MP 26.63-27.95 in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-40
MH-11 Maintain Tunnel 26 at MP 441.19-442.59 in state of good repair that is used on a daily basis by	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
other commuter, intercity and freight rail operators to move people and goods throughput.														Plan, pg. 3-40
MH-12 Maintain Tunnel 27 at MP 442.89-443.06 in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-40
MH-13 Maintain Tunnel 28 at MP 443.88-443.99 in state of good repair that is used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 3-40
MH-14 Central Maintenance Facility	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
located at 1555 N San Fernando Road, LA														Plan, pg. 7-3
MH-15 Keller Yard located at 720 Keller Street, LA	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-16 Metrolink Operations Center Address located at 2558 Supply Street, Pomona	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-17 Dispatch Operations Center located at 2704 Garey Avenue, Pomona	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-18 Melbourne Office located at 2703 Melbourne Avenue, Pomona	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-19 MOW Headquarters located at 2701 N. Garey Avenue, Pomona	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
MH-20 Lancaster Layover Yard located at 48812 N. Sierra Hwy, Lancaster	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-21 Bauchet Engineering (Yard) located at 413 E. Bauchet Street, LA	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-22 Lang Yard located at 13903 Lang Station Road, Canyon Country	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-23 Claremont Station located at 200 W. 1st Street, Claremont	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan, pg. 7-3
MH-24 Burbank Airport N. Station located at 3600 N. San Fernando Blvd, Burbank	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	
MH-25 Burbank Airport S. Station located at 3750 W. Empire Ave, Burbank	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
MH-26 Van Nuys Station located at 7720 Van Nuys Blvd, Van Nuys	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	
MH-27 Los Angeles Station located at 800 N. Alameda Street, LA	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	
MH-28 Maintain 380 Metro owned switches in state of good repair that are used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan
MH-29 Maintain over 135 Metro owned signal system types in state of good repair that are used on a daily basis by other commuter, intercity and freight rail operators to move people and goods throughput.	Metro	HMGP, PDM, BRIC	2-20 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
MH-30 Maintain 13 Metro owned communication shelters in state of good repair that are used on a daily basis by other commuter, intercity and freight rail operators.	Metro	HMGP, PDM, BRIC	1-10 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan
MH-31 Maintain 26 Metro owned CIS systems in state of good repair that are used on a daily basis by other commuter, intercity and freight rail operators.	Metro	HMGP, PDM, BRIC	1-15 years	GR	X			X	X	H	H	H	Y	2018 Metrolink Rehabilitation Plan
Earthquake														
EQ-1														
EQ-2														
Flood														
FLD-1														
FLD-2														
Wildfire														
WF-1														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
WF-2														
Landslide														
LND-1														
LND-2														
Windstorms														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Table: Mitigation Actions Matrix: System Security and Law Enforcement (SSLE)

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
Multi-Hazard														
MH-1 Update to an enterprise access control system. Metro's access control uses the Pinnacle card access control system manufactured by Sielox at all of the Metro Operating Divisions. A major weakness of this system is that if the primary server were to fail, a Metro staff member must manually push a "red" button to failover to the backup server, during which time any access or intrusions cannot be detected or assessed in real-time. A second major weakness is that many components of	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	Security Assessment Report, July 10, 2108

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
the access control equipment are in poor working order with several locations having expired or damaged batteries and hardware that is installed improperly.														
MH-2 Update to an enterprise Video Management Systems (VMS). Currently, Metro supports two VMS, Bosch by Bus Operations and Panasonic Video Insight by Rail Operations, which can lead to in compatibilities and non-standardization. Most critically, the video surveillance systems at the Operating Divisions are not consistently monitored in real-time nor are security events assessed as they	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	Security Assessment Report, July 10, 2018

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
are occurring locally by contracted security or remotely by Metro Security. This results in either a delayed response or no response to emergency events.														
MH-3 Install an enterprise intrusion detection system. There is no intrusion detection system in use at the majority of Metro's Operating Divisions. Many critical assets at these locations are left vulnerable. With no alarm or monitoring to alert security to investigate, it creates a security reaction in lieu of a response to emergency incidents.	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	Security Assessment Report, July 10, 2018
MH-4 Install an enterprise emergency communication	System Security &	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	Security Assessment

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
system. There is no effective emergency communication system for Metro staff to request help or to notify security of an incident. Of particular concern for Metro staff are employees at remote parking locations where there is no means to ask for help and managerial staff who are subject to harm when handling emergency related matters.	Law Enforcement													Report, July 10, 2018
MH-5 Retrofit Metro facilities located in high hazard areas.	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X					H	H	H	Y	
MH-6 Install quick-connect emergency generator hook-ups for critical facilities.	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X					H	H	H	Y	
Earthquake														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
EQ -1 Identify and harden critical lifeline systems, i.e., critical public services such as transportation facilities	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	
Flood														
FLD-1														
FLD-2														
Wildfire														
WF-7 Create defensible space around structures & infrastructures	System Security & Law Enforcement	HMGP, PDM, BRIC	3-5 years	GR	X				X	H	H	H	Y	
Landslide														
LND-1														
LND-2														
Windstorms														
WND-1														
WND-2														
Tsunami														
TSU-1														
TSU-2														
Climate Change														

Action Item	Coordinating Organization	Funding Source: GF-General Fund, HMGP-Hazard Mitigation Grant Program, PDM-Pre-Disaster Mitigation Grant, BRIC-Building Resilient Infrastructure and Communities	Timeline	Planning Mechanism: CAAP-Climate Action and Adaptation Plan, GF-General Fund, GR-Grant	Plan Goals Addressed					Priority: L– Low, M-Medium, H-High	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Buildings & Infrastructure: Does the Action Item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y)	Notes or Source Document, if applicable
					Protect Life and Property	Increase Public Awareness	Protect Natural Systems	Promote Partnerships and Implementation	Enhance Emergency Services					
CC-1														
CC-2														
Epidemic / Pandemic / Vector-Borne														
EPV-1														
EPV-2														

Plan Maintenance

The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how Metro will integrate public participation throughout the plan maintenance process.

Local Mitigation Officer

The Planning Team that was involved in research and writing of the Plan will also be responsible for implementation. The Planning Team will be led by the Planning Team Chair Moniek Pointer and Co-Chair Aldon Bordenave who will be referred to as the Local Mitigation Officers. Under the direction of the Local Mitigation Officers, the Planning Team will take responsibility for plan maintenance and implementation. The Local Mitigation Officers will facilitate the Planning Team meetings and will assign tasks such as updating and presenting the Plan to the members of the Planning Team. Plan implementation and evaluation will be a shared responsibility among all of the Planning Team members. The Local Mitigation Officers will coordinate with Metro leadership to ensure funding for 5-year updates to Plan as required by FEMA.

The Planning Team will be responsible for coordinating implementation of plan action items and undertaking the formal review process. The Local Mitigation Officers will be authorized to make changes in assignments to the current Planning Team.

The Planning Team will meet no less than bi-annually to monitor the status of the Plan. Meeting dates will be scheduled once the final Planning Team has been established. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan. The Local Mitigation Officers or designee will be responsible for contacting the Planning Team members and organizing the bi-annual meetings. The second meeting of the year will also include time to evaluate the effectiveness of the plan and the planning process.

Method and Scheduling of Plan Implementation

	Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring	XX	XX	XX	XX	XX
Evaluating					
Internal Planning Team Evaluation	X	X	X	X	X
Cal OES and FEMA Evaluation					X
Updating					X

Monitoring and Implementing the Plan

Plan Adoption

The Metro Board of Directors will be responsible for adopting the Mitigation Plan. This governing body has the authority to promote sound public policy regarding hazards. Once the plan has been adopted, the Local Mitigation Officers will be responsible for submitting it to the State Hazard Mitigation Officer at California Office of Emergency Services (Cal OES). Cal OES will then submit the plan to the Federal Emergency Management Agency (FEMA) for review and approval. This review will address the requirements set forth in 44 C.F.R. Section 201.6 (Local Mitigation Plans). Upon acceptance by FEMA, Metro will gain eligibility for Hazard Mitigation Grant Program funds.

Q&A | ELEMENT A: PLANNING PROCESS | A6a.
Q: Does the plan identify how, when, and by whom the plan will be **monitored** (how will implementation be tracked) over time? (Requirement §201.6(c)(4)(i)) **A:** See **Monitoring the Plan** below.

Monitoring the Plan

The Local Mitigation Officers will hold bi-annual meetings with the Planning Team members in order to gather status updates on the mitigation action items. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan. See the **Bi-Annual Implementation Report** discussed below which will be a valuable tool for the Planning Team to measure the success of the Hazard Mitigation Plan. The focus of the bi-annual meetings will be on the progress and changes to the Mitigation Actions Matrix.

Q&A | ELEMENT C. MITIGATION STRATEGY | C6a.
Q: Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated? (Requirement §201.6(c)(4)(ii)) **A:** See **Implementation through Existing Program** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C6b.
Q: Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms? (Requirement §201.6(c)(4)(ii)) **A:** See **Implementation through Existing Programs** below.
Q&A | ELEMENT C. MITIGATION STRATEGY | C6c.
Q: The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts. (Requirement §201.6(c)(4)(ii)) **A:** See **Implementation through Existing Programs** below.

Implementation through Existing Programs

Metro addresses statewide planning goals and legislative requirements through the General Fund, Capital Projects, and Grants. The Mitigation Plan provides a series of recommendations - many of which are closely related to the goals and objectives of existing planning programs. Metro will implement recommended mitigation action items through existing programs and procedures.

Metro is responsible for adhering to the State of California's Building and Safety Codes. In addition, Metro may work with other agencies at the state level to review, develop and ensure Building and Safety Codes are adequate to mitigate or present damage by hazards. This is to ensure that life-safety criteria are met for new construction.

Some of the goals and action items in the Mitigation Plan will be achieved through activities recommended in the strategic and other budget documents. The various departments involved in developing the Plan will review it on a bi-annual basis. Upon review, the Planning Team will work with the departments to identify areas that the Mitigation Plan action items are consistent with the strategic and budget documents to ensure the Mitigation Plan goals and action items are implemented in a timely fashion.

Upon FEMA approval, the Planning Team will begin the process of incorporating risk information and mitigation action items into existing planning mechanisms including the General Fund (Operating Budget and Capital Projects - see Mitigation Actions Matrix for links between individual action items and associated planning mechanism). The bi-annual meetings of the Planning Team will provide an opportunity for Planning Team members to report back on the progress made on the integration of mitigation planning elements into Metro's planning documents and procedures.

Specifically, the Planning Team will utilize the updates of the following documents to implement the Mitigation Plan:

- ✓ Risk Assessment, Service Area Profile, Planning Process (stakeholders) – Emergency Operations Plan, Climate Action Plan, Continuity of Operations Plan, Security emergency Preparedness Plan, etc.
- ✓ Mitigation Actions Matrix – General Fund, Capital Projects, Grants

Bi-Annual Implementation Report

The Bi-Annual Implementation Matrix is the same as the Mitigation Actions Matrix but with a column added to track the status of each Action Item. Upon approval and adoption of the Plan, the entire Bi-Annual Implementation Report will be added to the Appendix of the Plan. Following is a view of the Bi-Annual Implementation Matrix:

Insert sample here when completed

An equal part of the monitoring process is the need to maintain a strategic planning process which needs to include funding and organizational support. In that light, at least one year in advance of the FEMA-mandated 5-year submission of an update, the Local Mitigation Officers will convene the Planning Team to discuss funding and timing of the update planning process. On the fifth year of the planning cycles, the Planning Team will broaden its scope to include discussions and research on all of the sections within the Plan with particular attention given to goal achievement and public participation.

Economic Analysis of Mitigation Projects

FEMA's approach to identify the costs and benefits associated with hazard mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis.

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Planning Team will use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items. For other projects and funding sources, the Planning Team will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

The “benefit”, “cost”, and overall “priority” of each mitigation action item was included in the Mitigation Actions Matrix located in Part III: Mitigation Strategies. A more technical assessment will be required in the event grant funding is pursued through the Hazard Mitigation Grant Program. FEMA Benefit-Cost Analysis Guidelines are discussed below.

FEMA Benefit-Cost Analysis Guidelines

The Stafford Act authorizes the President to establish a program to provide technical and financial assistance to state and local governments to assist in the implementation of hazard mitigation measures that are cost effective and designed to substantially reduce injuries, loss of life, hardship, or the risk of future damage and destruction of property. To evaluate proposed hazard mitigation projects prior to funding FEMA requires a Benefit-Cost Analysis (BCA) to validate cost effectiveness. BCA is the method by which the future benefits of a mitigation project are estimated and compared to its cost. The end result is a benefit-cost ratio (BCR), which is derived from a project’s total net benefits divided by its total project cost. The BCR is a numerical expression of the cost effectiveness of a project. A project is considered to be cost effective when the BCR is 1.0 or greater, indicating the benefits of a prospective hazard mitigation project are sufficient to justify the costs.

Although the preparation of a BCA is a technical process, FEMA has developed software, written materials, and training to support the effort and assist with estimating the expected future benefits over the useful life of a retrofit project. It is imperative to conduct a BCA early in the project development process to ensure the likelihood of meeting the cost-effective eligibility requirement in the Stafford Act.

The BCA program consists of guidelines, methodologies and software modules for a range of major natural hazards including:

- ✓ Flood (Riverine, Coastal Zone A, Coastal Zone V)
- ✓ Hurricane Wind
- ✓ Hurricane Safe Room
- ✓ Damage-Frequency Assessment
- ✓ Tornado Safe Room
- ✓ Earthquake
- ✓ Wildfire

The BCA program provides up to date program data, up to date default and standard values, user manuals and training. Overall, the program makes it easier for users and evaluators to conduct and review BCAs and to address multiple buildings and hazards in a single BCA module run.

Evaluating and Updating the Plan

Q&A | ELEMENT A: PLANNING PROCESS | A6b.

Q: Does the plan identify how, when, and by whom the plan will be **evaluated** (assessing the effectiveness of the plan at achieving stated purpose and goals) over time? (Requirement §201.6(c)(4)(i))
A: See **Evaluation** below.

Evaluation

At the conclusion of the Second Bi-Annual Implementation Meeting, the Local Mitigation Officers will lead a discussion with the Planning Team on the success (or failure) of the Mitigation Plan to meet the plan goals. Metrics used will include examining outcomes, number of action items implemented, identification of internal and external barriers to implementation. The results of that discussion will be added to the Evaluation portion of the Bi-Annual Implementation Report and inclusion in the 5-year update to the Plan. Efforts will be made immediately by the Local Mitigation Officers to address any failed plan goals.

Q&A | ELEMENT A: PLANNING PROCESS | A6c.

Q: Does the plan identify how, when, and by whom the plan will be **updated** during the 5-year cycle? (Requirement §201.6(c)(4)(i))
A: See **Formal Update Process** below.

Formal Update Process

As identified above, the Mitigation Actions Matrix will be monitored for status on a bi-annual basis as well as an evaluation of the Plan's goals. The Local Mitigation Officer or designee will be responsible for contacting the Planning Team members and organizing the bi-annual meetings. Planning Team members will also be responsible for participating in the formal update to the Plan every fifth year of the planning cycle.

The Planning Team will begin the update process with a review the goals and mitigation action items to determine their relevance to changing situations within Metro as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The Planning Team will also review the Plan's **Risk Assessment** portion of the Plan to determine if this information should be updated or modified, given any new available data. The **coordinating organizations** responsible for the various action items will report on the status of their projects, including the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised. Amending will be made to the Mitigation Actions Matrix and other sections in the Plan as deemed necessary by the Planning Team.

Q&A | ELEMENT A: PLANNING PROCESS | A5

Q: Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))
A: See **Continued Public Involvement** below.

Continued Public Involvement

Metro is dedicated to involving the public directly in the continual review and updates to the Mitigation Plan. Copies of the plan will be made available at Metro Headquarters and on the Metro website. The existence and location of these copies will be publicized in Metro Newsletters and on the website. This site will also contain an email address and phone number where people can direct their comments and concerns. At the discretion of the Local Mitigation Officers, a public meeting may be held after the Annual Implementation Meeting. The meeting would provide the public a forum in which interested individuals and/or agencies could express their concerns, opinions, or ideas about the plan.

The Local Mitigation Officers will be responsible for using Metro resources to publicize any public meetings and always free to maintain public involvement through the public access channel, web page, and newspapers.

Attachments

FEMA Letter of Approval

Board of Directors Adoption Resolution

Staff Report to Board of Directors

Secondary Stakeholders Input

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
October 2021	LA Metro Executive Team, Aston Greene, Executive Officer	Minor administrative corrections	All incorporated into Third Draft Plan
September 16, 2021	Los Angeles County Chief Executive Office, Office of Emergency Management Leslie Luke, Deputy Director	N/A	
September 16, 2021	Los Angeles City Emergency Management Department Gary Singer, Emergency Management Coordinator 2	N/A	
September 16, 2021	Access Services Mike Greenwood, Chief Operations Officer	N/A	
September 16, 2021	TransMAC (Transit Mutual Assistance Compact) Mike Greenwood, Chair of TransMAC. TransMAC is an association of transit agencies which meet monthly and have agreed to provide mutual assistance to member agencies such as Los Angeles County Metropolitan Transportation Authority, Orange County Transportation Authority, Riverside County Transportation Commission, San Bernardino County Transportation Authority, and Ventura County Transportation Commission under the TransMAC Agreement.	N/A	

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
September 15, 2021	Jackie Ayer	AHMP does not address the windstorms that also create dust storms in the northern part of the county. In December (22), 2015 20 big rig trucks were turned over by 80mph winds, shutting down the 14 Freeway, shutting of routes between norther and southern CA.	This information was included into the Windstorm Hazards Chapter under Previous Occurrences.
September 15, 2021	Myanna Dellinger	Ought to consider electrifying all your trains. I believe they are diesel-operated.	The Metro rail is electric powered. The Metro Board has made a commitment to have 100% electric buses by the year 2030.

September 15, 2021	Chase Engelhardt Policy Analyst and Organizer Climate Resolve	1. **Related to Heat** Tree installation around Metro infrastructure is listed as low priority However, trees can reduce ambient surface temperatures by up to 40°F. This is also true of shade, generally, so this action may be best amended to include other appropriate shade structures. The plan makes mention of shade at rail stations and in the form of bus shelters, but shade can also protect riders along important first mile/last mile corridors, or used to protect metro infrastructure. Implemented correctly near energy consuming infrastructure, this could also decrease energy use. 2. Hydration station access can greatly reduce the amount of hospitalizations or deaths experienced during extreme heat days and heatwaves, and should be included in the plan 3. We recommend examining the feasibility of decreasing headways for buses and rail (but especially buses) in areas like the valley that are likely to experience up to 95 days a year above 95°F. Reducing the time that riders are exposed to extreme heat will greatly reduce hospitalizations and deaths from extreme heat. 4. **Related to Wildfire** As is briefly mentioned in the report on hazards, wildfire has a very substantial impact on air quality throughout the LA Basin. The mitigation steps currently mentions improved air ventilation and	1. **Trees -** Metro thanks Mr. Engelhardt for his comments. The Planning Team agrees with his assessment that the tree installations should be a high priority. The Matrix has been updated. 2. **Hydration Station –** A Mitigation Action Item has been added to the Bus Facilities and Property Maintenance (BFPM) Matrix. 3. **Decreasing Intervals –** A Mitigation Action Item has been added to the Bus Facilities and Property Maintenance (BFPM) Matrix.

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
		circulation, but without using any form of air filtration or purification (we recommend at least MERV 13 for wildfire) it will be devastating to riders' health. 5. **Related to All Hazards** As the COVID-19 pandemic has demonstrated, workers are critical to the functioning of County services and infrastructure. Climate Resolve advises analyzing the workforce needs for critical services and infrastructure like electricity, water supply, and communications to ensure that routes and modes that those workers rely on have contingency routes and resources.	4. **Wildfire –** Metro already utilizes air ventilation and circulation methods and has added air filtration and purification as a Mitigation Action Item to the Emergency Management Matrix. 5. **All Hazards –** These comments are related to Metro's continuity of operations planning and not related to the mitigation plan.

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
September 15, 2021	Hamid Mahramzadeh, M.S., P.E., S.E. LA Metro Senior Director, Metro Engineering Structures Major Capital Project Engineering	1. Page 33: Is earthquake "Previous Occurrence: 2014 La Habra" still applicable, since preparation of the plan? 2. Page 56: Local Conditions – A Note: California Building Code (CBC) was substantially revised and updated in the aftermath of the Northridge Earthquake. Various building types (Steel, Concrete, Masonry, Wood or hybrid) designed and constructed after the Northridge EQ would perform much better in a seismic event with less severe damage, in comparison to buildings designed and constructed prior to Northridge EQ. 3. Page 63: What is it meant by "thick soils" in the last sentence? Is it intended to imply "fill material or fill soils"? 4. Page 63: Recommend "compacted soils" as oppose to "consolidated soils" in the last sentence.	1. Previous Occurrences: The 2021 Ridgecrest 7.1 earthquake has been added to the section. 2. Language has been added to Earthquake-Local Conditions. 3. Soils are defined by compression and thickness. 4. The change has been made.

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
	Van Ajemian Board Member of Sage Global	I urge you to talk to The Boring Company, not because of what it is now doing, but, rather, because of what it can be doing with the tunnels it digs: The Boring Company creates safe, fast-to-dig, and low-cost transportation, utility, and freight tunnels. The mission: solve traffic, enable rapid point-to-point transportation and transform cities. Imagine if LA Metro did a demonstration project with The Boring Company for installing batteries nderground. Imagine if the company did it for free as a way to pique the curiosity of others around the country, "If caverns can be created for batteries, for what other purposes can caverns be used?" This might become a big advancement for emergency and homeland-security preparedness.	The Planning Team supports installing batteries underground. A Mitigation Action Idea has been added to the Matrix.

Date Invited to Provide Input or Input Gathered	Agency Represented, Name, Position Title	Information Received	How Information was Incorporated into Plan
	Roy Thun At-Large Trustee Sustainable Remediation Forum (SURF)	I have reviewed Metro's May 28, 2021 draft All-Hazards Mitigation Plan. I found the HMP to be very well done. I have two recommendations. 1. My first recommendation is that it would be appropriate to acknowledge in the HMP the forthcoming release of FEMA's Risk Rating 2.0 and potential impact it may have to the NFIP as it pertains to Metro. FEMA Risk Rating 2.0 is expected to produce a significant shift in how flood insurance premiums are set by accounting for a number of property-specific factors instead of setting prices solely based on the zone where a property sits. 2. My second recommendation is to expand the HMP to identify and more fully recognize critical dependencies, such as water, power and communications infrastructure, and support agencies/organizations, etc..., that if severely impacted by a natural disaster would delay or prevent Metro from providing services.	1. Metro is self-insured. 2. This is considered a response activity and therefore not included in a Hazard Mitigation Plan.

External agencies listed above were invited via email and provided with an electronic link to the Metro website. Following is the email distributed along with the invitation to contribute to the planning process:

External Agencies Email Invite – Sent September 15, 2021

Submit Public Comment by October 18th for Metro's Local All-Hazard Mitigation Plan

The Federal Emergency Management Agency (FEMA) requires Metro to prepare a *Local All-Hazard Mitigation Plan* (LAHMP) in order to apply for non-emergency disaster assistance funding to support protection of its public facilities.

The LAHMP identifies Metro's assets, natural hazard threats and mitigation actions to reduce risks from these hazards to public facilities owned and operated by LA Metro that help provide a safe and world-class transportation system for the LA Region. **We are seeking public comment on the LAHMP to ensure we identify and mitigate for all potential natural hazards.**

UPDATED LINK: Review The draft Local All-Hazard Mitigation Plan

Please email your comments by October 18th to Metro's Emergency Management Department at *MetroEM@metro.net*.

If you have any questions, please contact Moniek Pointer, Emergency Preparedness and homeland Security Manager via email at MetroEM@metro.net.

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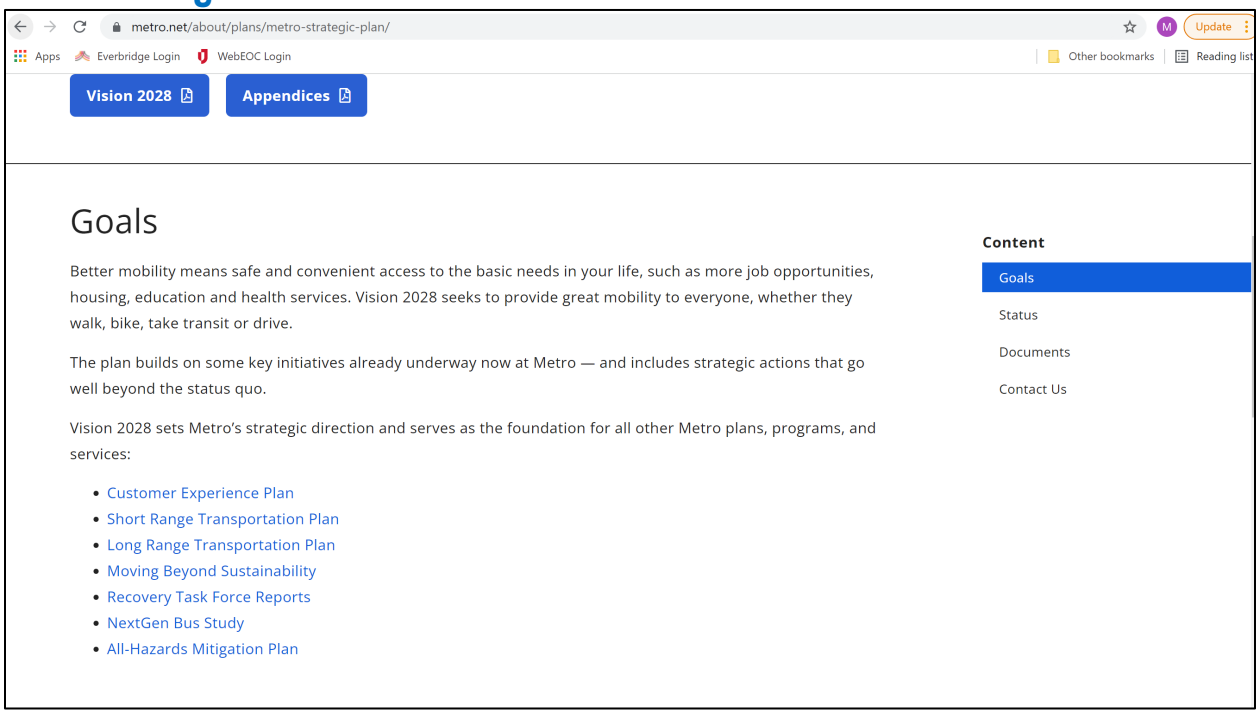
Web Posting


metro.net/about/plans/metro-strategic-plan/
Update
Apps
Everbridge Login
WebEOC Login
Other bookmarks
Reading list
Vision 2028
Appendices
Goals
Better mobility means safe and convenient access to the basic needs in your life, such as more job opportunities, housing, education and health services. Vision 2028 seeks to provide great mobility to everyone, whether they walk, bike, take transit or drive.
The plan builds on some key initiatives already underway now at Metro — and includes strategic actions that go well beyond the status quo.
Vision 2028 sets Metro's strategic direction and serves as the foundation for all other Metro plans, programs, and services:
Customer Experience Plan
Short Range Transportation Plan
Long Range Transportation Plan
Moving Beyond Sustainability
Recovery Task Force Reports
NextGen Bus Study
All-Hazards Mitigation Plan
Content
Goals
Status
Documents
Contact Us

Contract Kick Off Meeting – May 14, 2019

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Local All-Hazard Mitigation Plan (PS60250)

Project Kick-off Meeting Minutes

Date: 5/14/2019 - 10.30 AM to 12:00 PM
Metro - 100 S. Santa Fe Avenue Ls Angeles, CA 90012

Attending:

- Aldon Bordenave (AB) - Metro
- Moniek Pointer (MP) - Metro
- Carolyn Harshman (CH) - EPC
- Rawad Hani (RH) - GTS

1. AB informed the consultant team that MP will be the day-to-day project manager and he will serve in the capacity of a Program Manager overseeing the contract and supporting as needed.

2. The Metro departments to be invited to nominate members for the Planning team were discussed. AB mentioned that he already reached out to several departments informing them of the project award and the need for their support. MP will share the email sent out with RH and CH and will also provide a list of the departments.

3. CH mentioned that the Planning Meetings would be about 3 hours each and there will be 4 of these meetings. The three hours provides sufficient time for presentation and discussions.

4. AB asked that the meetings be inclusive and to ask the members of the Planning Team to provide their wish list with respect to projects

5. The schedule of the planning team meetings was discussed to be in June, July, August, and September. It was agreed that the timing of meetings 2,3, and 4 will be agreed upon with the planning team.

6. CH stressed that it is important for the same person (nominated by the respective department) to show up for all 4 meetings. CH will draft the email wording and provide to MP with the overview of each meeting. CH stated that the level of effort will be about 20 hours for the planning team members to participate and provide their feedback.

7. Reporting was discussed and will be a done on a monthly basis to include the updated schedule, completed tasks, and tasks planned for the upcoming month. Invoicing was

discussed and it was agreed to invoice on a monthly basis the completed work. The invoices will also reference Exhibit B - Payment schedule of the contract agreement.

8. Stakeholders were discussed. CH mentioned that the planning team is the first level of stakeholders and they will review the first draft. The second draft will be circulated to the public which includes primarily the 28 sites, the DMACs, as well as posted on the Metro website. MP is coordinating both the outreach as well as the website aspects and she will support in getting the word out in due time.

9. Available Data was discussed; AB will provide the emergency operations plan as well as vulnerability analysis, a spreadsheet with all the assets, climate adaptability plan, and other available documents . An NDA might need to be signed to obtain the THIRA. MP will send the NDA to RH and CH.

10. Training workshops were discussed and it was agreed to have 2 -3 workshops instead of 6 and invest the resources in having an online e-learning video.

Action items:

- MP will send a draft of the departments
- MP will share the email sent earlier by AB to the departments (done)
- CH will send the wording for the planning team email (done)
- MP will send a notice to the first planning meeting
- MP will send the NDA
- AB will send the supporting documents identified under item 9

Updated schedule is provided on the following page

Planning Team Minutes and Attendance: Meeting 1 - June 28, 2019

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Local All-Hazard Mitigation Plan (PS60250)

Planning Team Meeting #1

Date: 6/28/2019 - 8.00 AM to 11:00 AM
Metro - One Gateway Plaza - Los Angeles, CA 90012

Invitees and Attendees:
A total of 43 Metro staff members were invited out of whom 30 were in attendance. The names and corresponding departments are shown in the following table.

First Name	Last Name	Department	Attended (Y: yes)
Albert	Escarcega	Information Technology	Y
Aldon	Bordenave	Emergency Management	Y
Andrina	Dominguez	Environmental Compliance & Sustainability	Y
Androush	Danielians	Projects Engineering	Y
Anthony	Chua	Information Technology	Y
Ashad	Hamideh	Countywide Planning & Development	
Aspet	Davidian	Program Management	Y
Ayda	Safaei	Communications	
Bob	Spadafora	RFS	Y
Brady	Branstetter	Facilities Maintenance	Y
Brian	Boudreau	Program Control	
Carolyn	Harshman	EPC (consultant)	Y
Chirag	Rabari	Countywide Planning & Development	Y
Craig	Reiter	Environmental Compliance & Sustainability	Y
Dana	De Vera	Project Management	Y
Denise	Longley	Asset Management	Y
Donell	Harris	Bus Maintenance	
Eddie	Boghossian	Corporate Safety	
Edna	Stanley	Rail Operations	Y
Errol	Taylor	Maintenance & Engineering	Y
Gelito	Ocdamia	Project Engineering - Facilities - Systems -	Y
Heather	Severin	Environmental Compliance & Sustainability	Y
James	Jimenez	Environmental Compliance & Sustainability	Y
James	Pachan	Bus Maintenance	Y
James D.	Andrew	Countywide Planning & Development	
Janice	Lim	Cyber Security	
Jeanet	Owens	Regional Rail	Y
Jonathan	Hofert	Project Management - Engineering	Y
Karen	Parks	Systems Security & Law Enforcement	Y
Mario	Del Rosario	Project Engineering: Facilities - Systems	Y
Marshall	Epler	Maintenance & Engineering	
Moniek	Pointer	Emergency Management	
Nadine	Triche-Williams	Bus Operations	Y
Patrick	Soto	Information Technology	
Rawad	Hani	GTS (consultant)	Y

First Name	Last Name	Department	Attended (Y: yes)
Raymond	Lopez	Corporate Safety	Y
Robert	Castanon	Rail Operations	
Ron	Tien	Project Engineering	Y
Stephen	Toms	Asset Management	Y
Steve	Jaffe	General Services	Y
Thinh	Dinh	Project Engineering: Facilities - Systems	Y
Timothy	Lindholm	Construction Management	
Ty	Henderson	Transit Security	
Brian	Balderrama	Regional Rail	Y
Kate	Amissah	Regional Rail	Y

Program Manager Aldon Bordenave introduced the project and the consultant team. He highlighted the importance of the project not only for identifying hazards and mitigation action items but also for being able to apply for federal grants that are available only to public entities with FEMA-approved Hazard Mitigation Plans. He introduced Moniek Pointer as the project manager and highlighted the previous work he carried out on the HMP at the Los Angeles Unified School District which led to numerous grant opportunities.

Carolyn Harshman from EPC (consultant team) provided an overview of her experience completing Hazard Mitigation Plans and provided an interactive presentation on the Hazard Mitigation Planning Process which also included video simulations on earthquakes in the Los Angeles region. The attendees had a chance to engage at various points asking questions or clarifying certain aspects of the presentation.

The following is a listing of the main topics covered in the presentation:

a. Definition of Mitigation
b. Examples of Previous Hazards with impacted areas and human tolls highlighting the pitfalls as well as the lessons learned
c. Disaster Mitigation Act 2000 (DMA 2000) that among other things streamlines the administration of disaster relief
d. Local Plan Requirements 44 CFR Section 201.6 which provides opportunities for public input during the plan drafting stage
e. Description of the Hazard Mitigation Planning 5-Steps (planning process description, risk assessment, mitigation strategy, plan maintenance process, and plan adoption process)
f. Illustration of the Community Profile and Risk Assessment presenting the Calculated Priority Risk Index (CPRI). The CPRI value is obtained by assigning varying degrees of risk to four categories for each hazard, and then calculating an index value based on a weighting scheme.
g. Examples were provided to highlight the four criteria (and their weight) in the CPRI which are Probability (45%), Magnitude/Severity (30%), Warning Time (15%) and Duration (10%). For each of the criteria, there are four (4) options from which to choose: 1,2,3,4. Zero (0) is the value taken when an option is not assigned.
h. Wants and Needs which include copies of Metro's Emergency Operations Plan, Capital Improvement Program, Mapping Resources, and other resources including information on hazards.

i. Project Timeline with emphasis on the future planning team meetings. Carolyn Harshman mentioned that the Planning Meetings would be about 3 hours each and there will be a total of 4 of these meetings. The three-hour meetings are required to provide sufficient time for presentation and discussions.

2. Throughout the presentation the consultant fielded various questions including:
   a. The distinction between Hazard Mitigation Plan and an Emergency Operations or Response Plan highlighting that the mitigation plan focuses on actions taken ahead of time to minimize or eliminate threats associated with hazards - not how to respond in the case of an emergency
   b. Impact of hazards on Metro-owned critical and essential facilities is an important component of the Mitigation Plan
   c. The number of facilities was estimated at approximately 150
   d. The attendees showed different perspectives when discussing CPRI value calculations based on the perceived probabilities and magnitudes of hazards
   e. Development of mitigation action items - the consultant explained that discussion on developing a Mitigation Strategy was intended to begin in meeting #2, but entertained various questions on this topic

3. The attendees showed keen interest in the process and asked that the second meeting be scheduled in August in order for documents to be gathered and time allowed to identify department-specific mitigation action items..

4. CH stressed that it is important for the same person (appointed by the respective department) to show up for all 4 meetings in order to maintain continuity and allow the Planning Team to make forward momentum.

Action items:

- MP will coordinate the next planning team meeting in August
- All: gather documents and create a "needs list"

Planning Team Minutes and Attendance: Meeting 2 – August 28, 2019

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Local All-Hazard Mitigation Plan (PS60250)

Planning Team Meeting #2

Date: 8/28/2019 - 2.00 AM to 4:30 PM
Metro - One Gateway Plaza - Los Angeles, CA 90012

Invitees and Attendees:
A total of 43 Metro staff members were invited out of whom 21 were in attendance. The names and corresponding departments are shown in the following table. Some departments whose representatives attended the first meeting and could not attend this meeting provided alternate representatives who are listed in the table below the dotted line.

First Name	Last Name	Department	Attended (Y: yes)
Albert	Escarcega	Information Technology	
Aldon	Bordenave	Emergency Management	Y
Andrina	Dominguez	Environmental Compliance & Sustainability	Y
Androush	Danielians	Projects Engineering	
Anthony	Chua	Information Technology	
Ashad	Hamideh	Countywide Planning & Development	
Aspet	Davidian	Program Management	Y
Ayda	Safaei	Communications	
Bob	Spadafora	RFS	Y
Brady	Branstetter	Facilities Maintenance	
Brian	Boudreau	Program Control	
Carolyn	Harshman	EPC (consultant)	Y
Chirag	Rabari	Countywide Planning & Development	
Craig	Reiter	Environmental Compliance & Sustainability	Y
Dana	De Vera	Project Management	Y
Denise	Longley	Asset Management	Y
Donell	Harris	Bus Maintenance	
Eddie	Boghossian	Corporate Safety	
Edna	Stanley	Rail Operations	Y
Errol	Taylor	Maintenance & Engineering	
Gelito	Ocdamia	Project Engineering - Facilities - Systems -	
Heather	Severin	Environmental Compliance & Sustainability	
James	Jimenez	Environmental Compliance & Sustainability	
James	Pachan	Bus Maintenance	
James D.	Andrew	Countywide Planning & Development	
Janice	Lim	Cyber Security	
Jeanet	Owens	Regional Rail	
Jonathan	Hofert	Project Management - Engineering	
Karen	Parks	Systems Security & Law Enforcement	Y
Mario	Del Rosario	Project Engineering: Facilities - Systems	Y
Marshall	Epler	Maintenance & Engineering	Y
Moniek	Pointer	Emergency Management	Y
Nadine	Triche-Williams	Bus Operations	Y

First Name	Last Name	Department	Attended (Y: yes)
Patrick	Soto	Information Technology	
Rawad	Hani	GTS (consultant)	Y
Raymond	Lopez	Corporate Safety	Y
Robert	Castanon	Rail Operations	
Ron	Tien	Project Engineering	Y
Stephen	Toms	Asset Management	
Steve	Jaffe	General Services	
Thinh	Dinh	Project Engineering: Facilities - Systems	
Timothy	Lindholm	Construction Management	
Ty	Henderson	Transit Security	Y
Brian	Balderrama	Regional Rail	
Kate	Amissah	Regional Rail	
Chris	Limon	Facilities Management	Y
Roger	Largaespada	ITS	Y
John	Slay	General Services	Y
Brian	Balderrama	Regional Rail	Y
Romerica	Eller	Finance / Accounting	Y

The meeting room was organized in such a way to allow for staff to work together in one of 5 groups to develop mitigation action items. The attendees were grouped by departments as such:

1. Systems Security & Law Enforcement; Information Technology; Cyber Security
2. Countywide Planning & Development; Communications / Community Relations; Finance
3. Program Management; Project Engineering; Construction Management; Environmental Compliance & Sustainability; Program Control; Regional Rail; Wayside Systems Engineering & Maintenance; Maintenance & Engineering.
4. Risk Safety & Asset Management; Corporate Safety; Asset Management; General Services
5. Operations: Rail Ops; Rail Fleet Services; Bus Ops; Bus Maintenance

Project Manager Moniek Pointer (MP) re-introduced the project and the purpose of the second meeting. She highlighted the importance of the project in identifying hazards and mitigation action items and for being able to apply for federal grants that are available only to public entities with FEMA-approved Hazard Mitigation Plans. MP mentioned that the purpose of this meeting is to develop the mitigation action items for the various hazard categories that were identified in the first meeting.

Carolyn Harshman (CH) from EPC (consultant team) then lead an interactive presentation where the attendees had a chance to engage at various points asking questions or clarifying certain aspects of the presentation.

The following is a listing of the main topics covered in the presentation:

a. Introductions of Metro Staff and Departments and giving examples of some mitigation action items. CH clarified the difference between emergency response and hazard mitigation in response to some suggestions of mitigation action items.

b. Project Timeline highlighting the two future planning team meetings. CH mentioned that the next Planning Team Meeting will also include developing and refining the mitigation action items. The final Planning Team Meeting will be preceded with a copy of the First Draft Hazard Mitigation Plan.
c. A brief re-Cap of meeting #1 was provided.
d. HAZUS analysis results were presented for 3 scenarios: a magnitude 7.8 earthquake along southern the San Andreas Fault, a magnitude 7.2 earthquake along Newport - Inglewood Fault, and a magnitude 7.2 earthquake along Sierra Madre Fault. CH illustrated the economic loss on the rail and bus systems in Los Angeles County (associated with such disasters) in terms of hundreds of billions of dollars. She noted that HAZUS uses Census data which is 2010 data at this point.
e. Maps were presented showing hazard vulnerability of Metro's 361 assets representing divisions and facilities, rail stations, BRT stations, regional rail stations, rail division priority sites, and bus operations. The hazards included Fire Hazard Severity, Landslide Susceptibility, Liquefaction, Flooding and Tsunami Areas in Los Angeles County. CH noted that in addition to the maps a vulnerability matrix was produced showing which hazard might impact which of the Metro assets.
f. Examples of Mitigation Measures were presented including prevention, property protection, public education and awareness, natural resource protection, emergency services, and structural projects.
g. A sample mitigation actions matrix was presented. CH illustrated the benefit and cost aspects needed for the matrix.

Throughout the presentation, CH fielded various questions related to the level of detail needed for costs in the mitigation actions matrix, the sources of the HAZUS data, and the FEMA process in general.

The attendees showed an understanding of the process and a keen interest; they asked for an electronic version of the mitigation actions matrix to be sent to them so as to provide their lists of mitigation action items.

Action items:

- CH to send an electronic copy of the department-specific matrices to MP for distribution to specific departments
- MP will coordinate the next planning team meeting in early October

Planning Team Minutes and Attendance: Meeting 3 – October 17, 2019

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Local All-Hazard Mitigation Plan (PS60250)

Planning Team Meeting #3

Date: 10/17/2019 - 2.00 PM to 5:00 PM
Metro - One Gateway Plaza - Los Angeles, CA 90012

Invitees and Attendees:
A total of 43 Metro staff members were invited out of whom 14 were in attendance. The names and corresponding departments are shown in the following table. Some departments whose representatives attended the first meeting and could not attend this meeting provided alternative representatives who are listed in the table below the dotted line.

First Name	Last Name	Department	Attended (Y: yes)
Albert	Escarcega	Information Technology	
Aldon	Bordenave	Emergency Management	Y
Andrina	Dominguez	Environmental Compliance & Sustainability	Y
Androush	Danielians	Projects Engineering	
Anthony	Chua	Information Technology	
Ashad	Hamideh	Countywide Planning & Development	
Aspet	Davidian	Program Management	
Ayda	Safaei	Communications	
Bob	Spadafora	RFS	
Brady	Branstetter	Facilities Maintenance	
Brian	Boudreau	Program Control	
Carolyn	Harshman	EPC (consultant)	Y
Chirag	Rabari	Countywide Planning & Development	
Craig	Reiter	Environmental Compliance & Sustainability	Y
Dana	De Vera	Project Management	Y
Denise	Longley	Asset Management	Y
Donell	Harris	Bus Maintenance	
Eddie	Boghossian	Corporate Safety	
Edna	Stanley	Rail Operations	Y
Errol	Taylor	Maintenance & Engineering	
Gelito	Ocdamia	Project Engineering - Facilities - Systems -	
Heather	Severin	Environmental Compliance & Sustainability	
James	Jimenez	Environmental Compliance & Sustainability	
James	Pachan	Bus Maintenance	
James D.	Andrew	Countywide Planning & Development	
Janice	Lim	Cyber Security	
Jeanet	Owens	Regional Rail	
Jonathan	Hofert	Project Management - Engineering	
Karen	Parks	Systems Security & Law Enforcement	Y
Mario	Del Rosario	Project Engineering: Facilities - Systems	
Marshall	Epler	Maintenance & Engineering	Y
Moniek	Pointer	Emergency Management	Y
Nadine	Triche-Williams	Bus Operations	Y

First Name	Last Name	Department	Attended (Y: yes)
Patrick	Soto	Information Technology	
Rawad	Hani	GTS (consultant)	Y
Raymond	Lopez	Corporate Safety	
Robert	Castanon	Rail Operations	
Ron	Tien	Project Engineering	
Stephen	Toms	Asset Management	Y
Steve	Jaffe	General Services	
Thinh	Dinh	Project Engineering: Facilities - Systems	
Timothy	Lindholm	Construction Management	
Ty	Henderson	Transit Security	
Brian	Balderrama	Regional Rail	
Kate	Amissah	Regional Rail	
Chris	Limon	Facilities Management (attended Mtg #2)	Y
Roger	Largaespada	ITS (attended Mtg #2)	Y
John	Slay	General Services (attended Mtg #2)	Y
Mike	Ornelas	RFS	Y

The meeting room was organized in such a way to allow for staff to work together in 5 groups on developing the mitigation action items. The attendees were grouped by department (similar to the previous meeting), as such:

1. Systems Security & Law Enforcement; Information Technology; Cyber Security
2. Countywide Planning & Development; Communications / Community Relations; Finance
3. Program Management; Project Engineering; Construction Management; Environmental Compliance & Sustainability; Program Control; Regional Rail; Wayside Systems Engineering & Maintenance; Maintenance & Engineering.
4. Risk Safety & Asset Management; Corporate Safety; Asset Management; General Services
5. Operations: Rail Ops; Rail Fleet Services; Bus Ops; Bus Maintenance

Carolyn Harshman (CH) from the consultant team lead an interactive presentation followed by a facilitated "working in groups" session.

The following is a listing of the main topics covered in the presentation:

a. Project Timeline highlighting the overall progress and the future planning team meeting.
b. A brief re-Cap of meeting #2 was provided which included (i) reviewing HAZUS, (ii) examining FEMA mitigation categories, and (iii) reviewing parameters for capturing mitigation action items.
c. CH mentioned that over the past month, the mitigation matrices were received from various departments including Environmental Compliance & Sustainability, Program Management, Maintenance & Engineering, IT, Transportation Operations, and General Services. However, there are some departments that are yet to send their matrices.
d. CH shared a sample matrix provided by one of the departments highlighting the significance of the various matrix categories

e. CH mentioned that each table has a hard copy of the FEMA Mitigation Ideas that will be used in this session. She indicated that this resource is also online and will be sent electronically by Moniek Pointer (MP) to the various departments.
f. The purpose of this meeting is to develop new ideas based on the FEMA Mitigation Ideas Manual. CH presented what is meant in the HMP plan context by ranking Benefits and the Costs. Benefits should be rated as low if only short-term impacts or risks to life and property, medium for long term impacts/risks to life and property and high for both short- and long-term impacts to life and property. Costs should be rated low if funds are already available within the department's budget), medium if funds available within Metro with a budget re-allocation) and high if funds must be obtained outside of Metro.
g. CH expressed her thanks to Moniek for all the time she had spent contacting and coaching the department representatives as they developed their Mitigation Actions Matrices.

The attendees were provided with the FEMA Mitigation Ideas document who worked in groups to identify new/additional mitigation ideas to the matrices they have already developed.

Action items:

- CH to send an electronic copy of the First Draft HMP to Moniek Pointer within approximately one month who will share with the Planning Team.

MP will coordinate the next Planning Team meeting in early December.

Planning Team Minutes and Attendance: Meeting 4 – February 3, 2020

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Local All-Hazard Mitigation Plan (PS60250)

Planning Team Meeting #4

Date: 2/3/2020 - 1.00 PM to 4:00 PM
Metro - One Gateway Plaza - Los Angeles, CA 90012

Invitees and Attendees:
A total of 43 Metro staff members were invited out of whom 20 were in attendance. The names and corresponding departments are shown in the following table. Some departments whose representatives attended the first meeting and could not attend this meeting provided alternative representatives who are listed in the table below the dotted line.

First Name	Last Name	Department	Attended (Y: yes)
Albert	Escarcega	Information Technology	
Aldon	Bordenave	Emergency Management	Y
Andrina	Dominguez	Environmental Compliance & Sustainability	Y
Androush	Danielians	Projects Engineering	
Anthony	Chua	Information Technology	
Ashad	Hamideh	Countywide Planning & Development	
Aspet	Davidian	Program Management	Y
Ayda	Safaei	Communications	
Bob	Spadafora	RFS	Y
Brady	Branstetter	Facilities Maintenance	Y
Brian	Boudreau	Program Control	
Carolyn	Harshman	EPC (consultant)	Y
Chirag	Rabari	Countywide Planning & Development	
Craig	Reiter	Environmental Compliance & Sustainability	Y
Dana	De Vera	Project Management	
Denise	Longley	Asset Management	Y
Donell	Harris	Bus Maintenance	
Eddie	Boghossian	Corporate Safety	
Edna	Stanley	Rail Operations	Y
Errol	Taylor	Maintenance & Engineering	
Gelito	Ocdamia	Project Engineering - Facilities - Systems -	Y
Heather	Severin	Environmental Compliance & Sustainability	
James	Jimenez	Environmental Compliance & Sustainability	
James	Pachan	Bus Maintenance	
James D.	Andrew	Countywide Planning & Development	
Janice	Lim	Cyber Security	
Jeanet	Owens	Regional Rail	
Jonathan	Hofert	Project Management - Engineering	
Karen	Parks	Systems Security & Law Enforcement	Y
Mario	Del Rosario	Project Engineering: Facilities - Systems	
Marshall	Epler	Maintenance & Engineering	Y
Moniek	Pointer	Emergency Management	Y
Nadine	Triche-Williams	Bus Operations	

First Name	Last Name	Department	Attended (Y: yes)
Patrick	Soto	Information Technology	
Rawad	Hani	GTS (consultant)	Y
Raymond	Lopez	Corporate Safety	Y
Robert	Castanon	Rail Operations	
Ron	Tien	Project Engineering	
Stephen	Toms	Asset Management	Y
Steve	Jaffe	General Services	
Thinh	Dinh	Project Engineering: Facilities - Systems	Y
Timothy	Lindholm	Construction Management	
Ty	Henderson	Transit Security	
Brian	Balderrama	Regional Rail	
Kate	Amissah	Regional Rail	
Chris	Limon	Facilities Management (attended Mtg #2 & 3)	Y
Steve	Rank	Bus Operations	
John	Slay	General Services (attended Mtg #2 & 3)	Y
Jerry	Whelan	Wayside SCADA	Y

Moniek Pointer (MP) welcomed the planning team and thanked them for their support during developing the plan and participation in the team meetings. MP noted that this is the last in a series of planning team meetings.

Carolyn Harshman (CH) from the consultant team in her turn thanked MP and the planning team and the purpose of the final meeting to collect comments on the First Draft Hazard Mitigation Plan. Also, she underlined the next steps in the process which include a public review period and then sending the plan for Cal OES and FEMA for their review, feedback, and ultimately approval. CH noted that following receipt of FEMA's "Approval Pending Adoption", the Metro Board will need to adopt the plan before FEMA's final approval.

CH asked about the public outreach venues that Metro has to share the Second Draft HMP document and the planning team noted that it is best to engage with Metro's Community Relations Department who will propagate the message for public review and feedback. MP will follow-up with Metro's Community Relations Department.

CH went through the First Draft Plan and solicited comments from the planning team; the main comments noted are the following:

- request to provide the full spelling of department names in the Credits
- the planning team noted that there is a Metro intranet that defines the roles of the various departments that will be provided to the consultant to include in the Capabilities Assessment in the Plan (reference p. 18 of the draft HFMP document)
- make sure all data sources are noted (p.19 of the draft HFMP document)
- revise the APTA reference
- rail lines were changed in the past week from colors to letters - it is recommended to refer to lines by their new names
- produce 2 maps - one for rail and one for bus when describing the existing system
- provide a map for the future system expansion

- In the vulnerability table in the Risk Assessment - the planning team will check the operations center to identify the date of the last impact of earthquakes on Metro facilities.
- Also, in the vulnerability table - the planning team noted that the heavy winds have impacted some facilities in recent days
- The planning team discussed how to organize the "Vulnerability of Critical Facilities to Hazards" table and suggestions were to do it by line and to ensure consistency in terms of presentation (station name followed by address).
- change the color scheme of the landslide maps so as not to confuse with fire maps
- update the map on page 83
- add the legend to the Tsunami map
- CH noted that some of the risk line items were missing and asked the teams to clarify
- page 180 - typo 2018 rather than 2108
- discussions of plan maintenance where it was agreed the implementation meetings will be held bi-annually.
- The meeting ended with a big push from the project managers and consultants to spend more time gathering mitigation action items to avoid missing out on grant funding.

The attendees were thanked again by the consultant and encouraged to reach out to CH with any questions.

Action items:

- CH will incorporate all corrections and requests identified during the meeting into the Second Draft Plan.
- Consultant team to revise the First Draft Plan based on the feedback received during the meeting
- MP will coordinate with the Community Relations Department and provide the items noted above by the planning team to the consultant
- CH will send the most recent mitigation actions matrices to MP for distribution to the departments.
- CH will provide email and website language to be used in posting the Second Draft Plan and emphasized the importance of keeping proof of all communications from outside the planning team. FEMA requires evidence of all communications and input gathered.

Project Management Meeting – June 11, 2020

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GTS | General Technologies and Solutions

In partnership with EPC | Emergency Planning Consultants

All-Hazards Mitigation Plan (PS60250)

Project Team Meeting 2

Date: 6/11/2020 - 10.00 AM to 11:30 AM via video-conferencing

Invitees and Attendees:

First Name	Last Name	Department	Attended (Y: yes)
Aldon	Bordenave	Emergency Management	Y
Carolyn	Harshman	EPC (consultant)	Y
Moniek	Pointer	Emergency Management	Y
Rawad	Hani	GTS (consultant)	Y

Rawad Hani (RH) noted that the meeting was called for in order to obtain an update from Metro on the status of the responses to the First Draft All-Hazards Mitigation Plan (AHMP) document and to discuss the next steps. A draft agenda was shared with the attendees which included the following items:

- COVID-19 Response and Updates
- Updates on the Comments Received on the First Draft Plan
- Finalizing the Second Draft for Public Input
- Cal OES and FEMA Review Process
- Board of Directors Adoption
- Finalizing the Plan/Project

The attendees discussed the above items and the following summarizes the main points:

- Moniek Pointer (MP) and Aldon Bordenave (AB) provided an update on Metro's response to COVID-19 as well as the ongoing protests. They noted the demands of 24-hour EOC activations, mounting public health and public safety regulations, and decreasing revenues among many other elements which are impacting the agency as a whole. They also noted the particular impacts on the Emergency Management Department which has decreased time available to focus on the AHMP.

- MP noted that the project timeline ends March of 2021 which needs to include the Cal OES and FEMA review/approval and adoption by the Board of Directors.

- MP also noted that there were comments received from internal Metro stakeholders on the First Draft Plan that will be provided to the consultant team over the next couple of weeks.

- Carolyn Harshman (CH) pointed out that the next step is to have the Second Draft Plan posted on Metro's website and available or input from the general public and external agencies (jurisdictions and special districts within Metro's service area).

- MP noted that she coordinated with Metro's Community Relations Department as to how the document circulation would be done during these (pandemic) times. CH offered to assist with this task as needed to answer any questions the Community Relations Department might have.

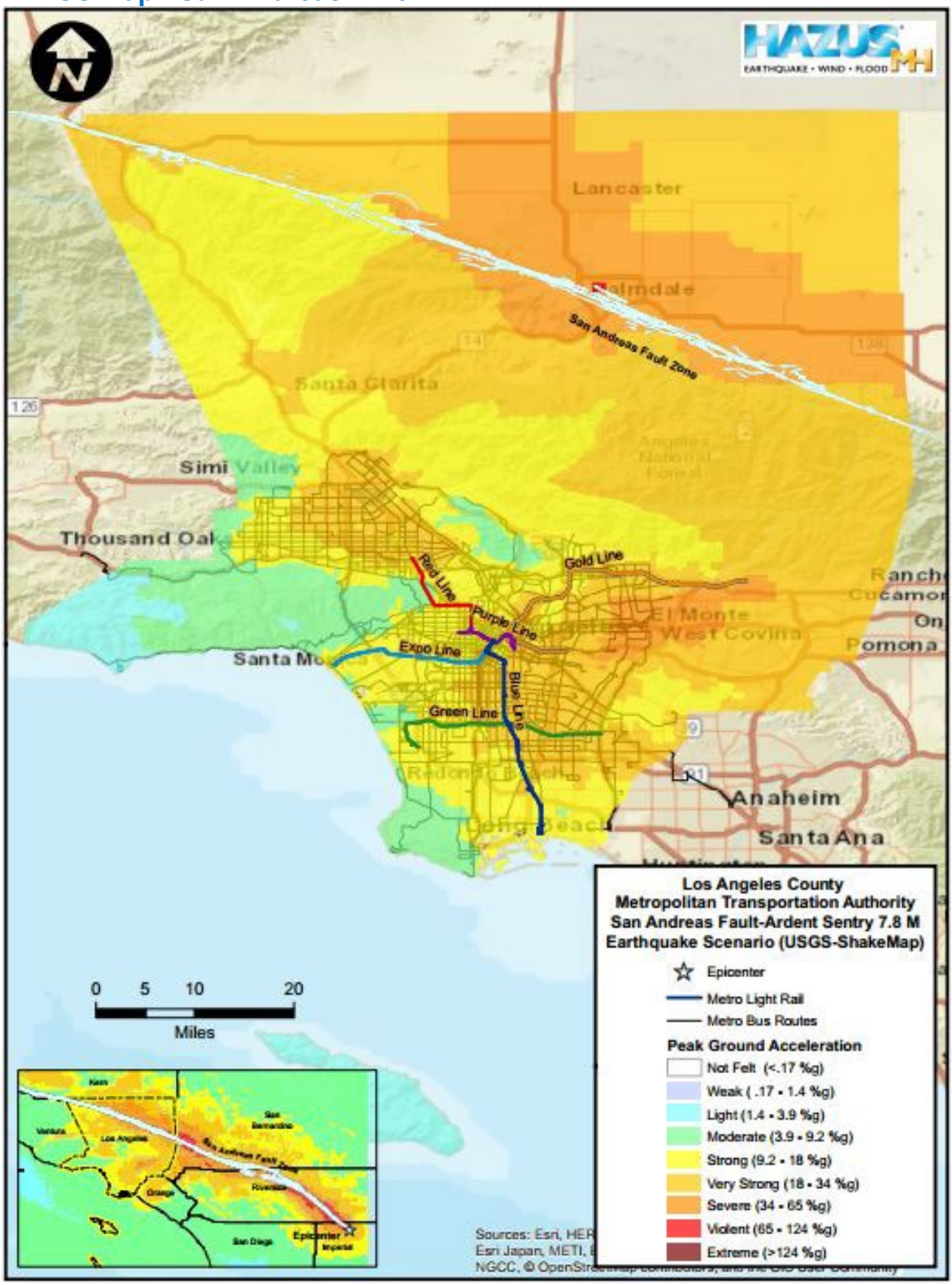
- CH suggested that an Epidemic/Pandemic/Vector-Borne Hazard section will be added to the Plan. This was well received by MP and AB. CH will add this as part of the Second Draft. With the addition of this section, each of the contributing department will need to be informed and encouraged to add any mitigation actions items to their Mitigation Actions Matrix. MP and AB asked CH about developing items for the Emergency Management Department to which she responded "yes".

- CH noted that the total review time for Cal OES and FEMA has been about 4 months this year. CH mentioned that after the Cal OES and FEMA review and issuance of Letter of Approval Pending Adoption, that the plan will then be ready for the Board of Directors consideration and adoption. The attendees discussed the timeline and thought this could potentially take place in November-December 2020.

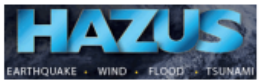
Action items:

- Consultant team to revise the plan based on the feedback received during the meeting
- MP will provide the feedback received on the First Draft Plan and coordinate with the Community Relations Department.

HAZUS Map - San Andreas M7.8



HAZUS Report - San Andreas M7.8



FEMA

RiskMAP
Increasing Resilience Together

Hazus: Earthquake Global Risk Report

Region Name: CountyofLA

Earthquake Scenario: M7.8-Ardent Sentry 2015 Scenario v1

Print Date: July 27, 2019

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 1 county(ies) from the following state(s):

California

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,083.89 square miles and contains 2,343 census tracts. There are over 3,241 thousand households in the region which has a total population of 9,818,605 people (2010 Census Bureau data). The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 2,391 thousand buildings in the region with a total building replacement value (excluding contents) of 1,134,130 (millions of dollars). Approximately 91.00 % of the buildings (and 77.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 51,120 and 10,482 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 2,391 thousand buildings in the region which have an aggregate total replacement value of 1,134,130 (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 88% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 120 hospitals in the region with a total bed capacity of 28,258 beds. There are 3,230 schools, 50 fire stations, 166 police stations and 12 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes 1,735 hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 61,602.00 (millions of dollars). This inventory includes over 2,994.39 miles of highways, 3,129 bridges, 95,079.70 miles of pipes.

Table 1: Transportation System Lifeline Inventory

System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,129	10915.3464
	Segments	4,391	36848.3892
	Tunnels	17	34.2700
	Subtotal		**47798.0056**
Railways	Bridges	144	28.3554
	Facilities	47	125.1610
	Segments	594	885.4233
	Tunnels	0	0.0000
	Subtotal		**1038.9397**
Light Rail	Bridges	28	6.1737
	Facilities	92	244.9960
	Segments	99	376.5065
	Tunnels	0	0.0000
	Subtotal		**627.6762**
Bus	Facilities	42	54.0204
	Subtotal		**54.0204**
Ferry	Facilities	10	13.3100
	Subtotal		**13.3100**
Port	Facilities	159	317.5230
	Subtotal		**317.5230**
Airport	Facilities	16	170.4160
	Runways	29	1100.9560
	Subtotal		**1271.3720**
	Total		**51,120.80**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	1530.1674
	Facilities	15	589.4100
	Pipelines	0	0.0000
		Subtotal	**2119.5774**
Waste Water	Distribution Lines	NA	918.1005
	Facilities	19	1493.1720
	Pipelines	0	0.0000
		Subtotal	**2411.2725**
Natural Gas	Distribution Lines	NA	612.0670
	Facilities	1	1.2862
	Pipelines	0	0.0000
		Subtotal	**613.3532**
Oil Systems	Facilities	44	5.1920
	Pipelines	0	0.0000
		Subtotal	**5.1920**
Electrical Power	Facilities	41	5321.8000
		Subtotal	**5321.8000**
Communication	Facilities	94	11.0920
		Subtotal	**11.0920**
		Total	**10,482.30**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.

Scenario Name	M7.8-Ardent Sentry 2015 Scenario v1
Type of Earthquake	
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	0.00
Latitude of Epicenter	0.00
Earthquake Magnitude	7.80
Depth (km)	0.00
Rupture Length (Km)	0.00
Rupture Orientation (degrees)	0.00
Attenuation Function	

Direct Earthquake Damage

Building Damage

Hazus estimates that about 260,680 buildings will be at least moderately damaged. This is over 11.00 % of the buildings in the region. There are an estimated 31,303 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

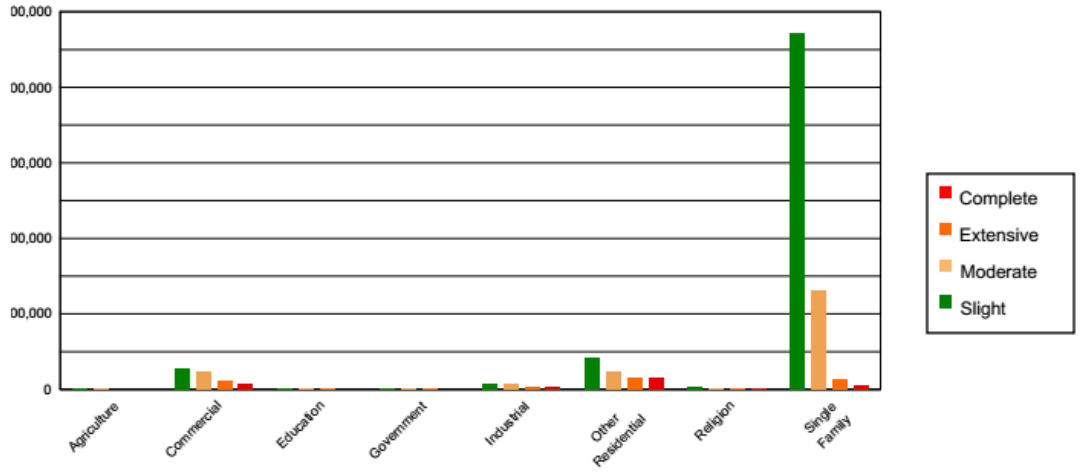


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	1798.44	0.11	588.57	0.11	390.79	0.21	173.69	0.41	150.51	0.48
Commercial	86618.65	5.49	27729.35	5.02	23102.28	12.36	10922.71	25.68	8126.01	25.96
Education	3592.71	0.23	1063.61	0.19	647.33	0.35	266.65	0.63	184.70	0.59
Government	1499.66	0.10	473.89	0.09	391.95	0.21	219.15	0.52	191.36	0.61
Industrial	18679.31	1.18	6736.62	1.22	6310.41	3.38	3266.58	7.68	2710.09	8.66
Other Residential	132142.08	8.37	42145.99	7.63	23710.95	12.69	14386.52	33.82	15091.45	48.21
Religion	7143.61	0.45	2254.28	0.41	1574.26	0.84	783.08	1.84	616.77	1.97
Single Family	1326862.85	84.07	471495.29	85.34	130711.62	69.96	12518.37	29.43	4232.79	13.52
Total	1,578,337		552,488		186,840		42,537		31,304	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	1437123.70	91.05	506458.63	91.67	139358.44	74.59	13861.72	32.59	5493.57	17.55
Steel	23501.24	1.49	8682.91	1.57	9573.62	5.12	5136.62	12.08	4001.97	12.78
Concrete	26761.44	1.70	8910.37	1.61	6249.70	3.34	3470.32	8.16	2992.99	9.56
Precast	22826.74	1.45	7672.83	1.39	7324.78	3.92	2993.81	7.04	1887.35	6.03
RM	50450.40	3.20	10280.14	1.86	9118.64	4.88	4246.05	9.98	2404.98	7.68
URM	7652.36	0.48	2999.66	0.54	2352.84	1.26	937.21	2.20	806.66	2.58
MH	10021.45	0.63	7483.04	1.35	12861.57	6.88	11891.02	27.95	13716.15	43.82
Total	**1,578,337**		**552,488**		**186,840**		**42,537**		**31,304**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 28,258 hospital beds available for use. On the day of the earthquake, the model estimates that only 23,720 hospital beds (84.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 98.00% of the beds will be back in service. By 30 days, 100.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	120	0	0	115
Schools	3,230	18	0	2,799
EOCs	12	1	0	11
PoliceStations	166	1	0	143
FireStations	50	1	0	43

Transportation Lifeline Damage

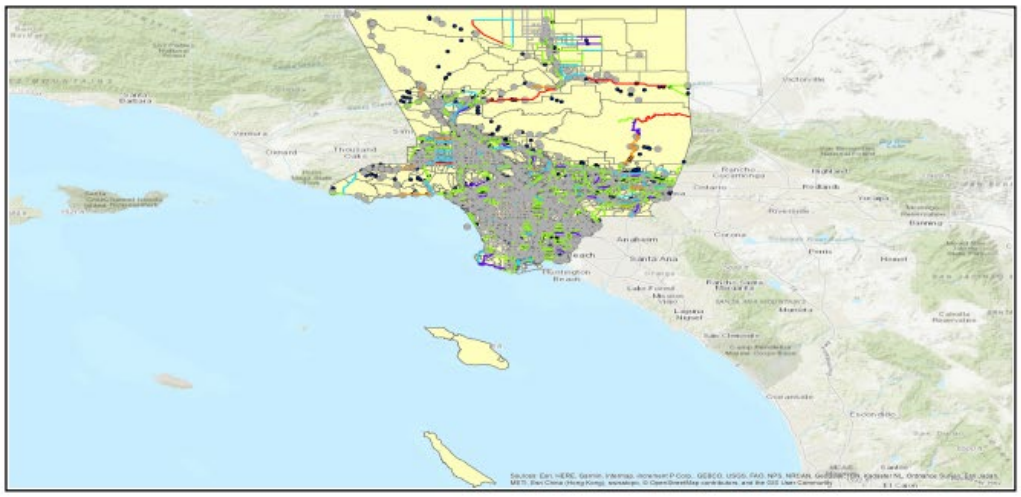


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	4,391	0	0	4,391	4,391
	Bridges	3,129	314	27	2,803	2,954
	Tunnels	17	0	0	17	17
Railways	Segments	594	0	0	594	594
	Bridges	144	10	0	134	142
	Tunnels	0	0	0	0	0
	Facilities	47	0	0	47	47
Light Rail	Segments	99	0	0	99	99
	Bridges	28	3	0	25	26
	Tunnels	0	0	0	0	0
	Facilities	92	3	0	92	92
Bus	Facilities	42	1	0	42	42
Ferry	Facilities	10	0	0	10	10
Port	Facilities	159	0	0	159	159
Airport	Facilities	16	2	0	16	16
	Runways	29	0	0	29	29

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	15	2	0	11	15
Waste Water	19	2	0	12	19
Natural Gas	1	0	0	1	1
Oil Systems	44	1	0	40	44
Electrical Power	41	5	0	31	41
Communication	94	7	0	94	94

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	47,540	540102	135026
Waste Water	28,524	271307	67827
Natural Gas	19,016	92948	23237
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	3,241,204	3,239,690	3,239,688	3,239,684	3,239,662	3,239,603
Electric Power		99,656	60,551	24,428	4,701	141

Induced Earthquake Damage

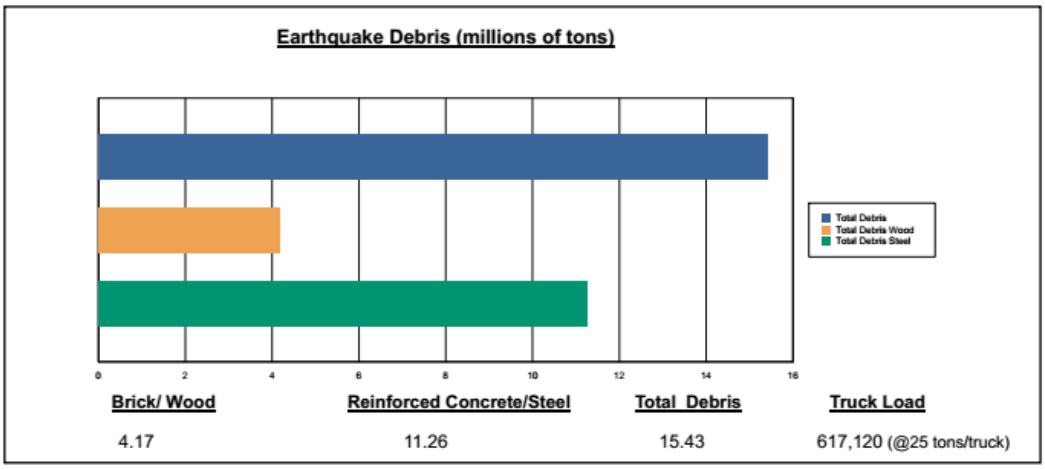
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 195 ignitions that will burn about 2.12 sq. mi 0.05 % of the region's total area.) The model also estimates that the fires will displace about 30,026 people and burn about 2,733 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 15,428,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 27.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 617,120 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



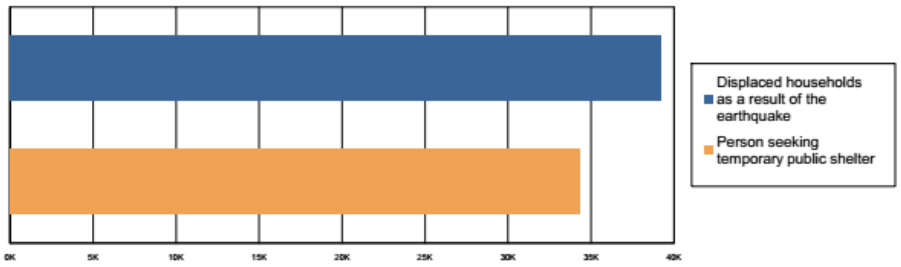
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
4.17	11.26	15.43	617,120 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 39,227 households to be displaced due to the earthquake. Of these, 34,361 people (out of a total population of 9,818,605) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
39,227	34,361

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	417.32	122.00	19.97	39.50
	Commuting	1.51	2.54	3.65	0.74
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	617.19	177.87	27.68	54.45
	Other-Residential	6455.49	1667.80	217.90	418.63
	Single Family	3329.99	471.55	32.50	59.32
	Total	**10,822**	**2,442**	**302**	**573**
2 PM	Commercial	24731.43	7231.37	1186.80	2332.34
	Commuting	13.60	22.90	32.89	6.66
	Educational	8553.69	2579.35	438.68	859.20
	Hotels	0.00	0.00	0.00	0.00
	Industrial	4549.90	1307.21	204.19	397.49
	Other-Residential	1447.37	377.92	50.41	94.57
	Single Family	732.19	106.08	8.08	13.04
	Total	**40,028**	**11,625**	**1,921**	**3,703**
5 PM	Commercial	17525.68	5110.27	841.81	1633.14
	Commuting	238.82	404.81	578.85	117.39
	Educational	943.15	281.52	47.59	93.40
	Hotels	0.00	0.00	0.00	0.00
	Industrial	2843.69	817.01	127.62	248.43
	Other-Residential	2422.07	626.05	83.28	156.24
	Single Family	1276.43	183.73	13.93	22.47
	Total	**25,250**	**7,423**	**1,693**	**2,271**

Economic Loss

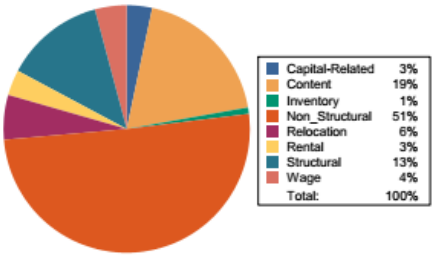
The total economic loss estimated for the earthquake is 74,554.85 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 69,162.30 (millions of dollars); 16 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 42 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

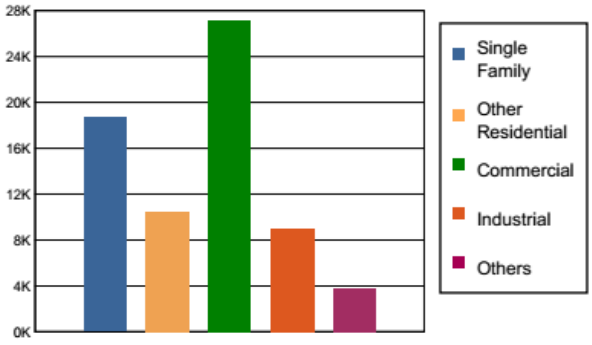


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	140.3400	2446.5920	142.0213	110.4317	2,839.3850
	Capital-Related	0.0000	59.6882	2076.0627	89.0491	26.9114	2,251.7114
	Rental	323.9000	497.3533	1191.0981	53.6205	61.4636	2,127.4355
	Relocation	1128.2826	406.6088	1848.8392	248.3149	439.8114	4,071.8569
	Subtotal	**1452.1826**	**1103.9903**	**7562.5920**	**533.0058**	**638.6181**	**11290.3888**
Capital Stock Losses							
	Structural	2345.4648	1276.3634	3831.9728	1161.5826	543.1520	9,158.5356
	Non_Structural	11571.5654	6655.7820	10825.1380	4193.8541	1819.6576	35,065.9971
	Content	3319.7190	1444.4347	4817.0462	2721.7833	790.6291	13,093.6123
	Inventory	0.0000	0.0000	135.3211	414.1299	4.3139	553.7649
	Subtotal	**17236.7492**	**9376.5801**	**19609.4781**	**8491.3499**	**3157.7526**	**57871.9099**
	Total	**18688.93**	**10480.57**	**27172.07**	**9024.36**	**3796.37**	**69162.30**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	36848.3892	0.0000	0.00
	Bridges	10915.3464	636.8165	5.83
	Tunnels	34.2700	0.1477	0.43
	Subtotal	**47798.0056**	**636.9642**	
Railways	Segments	885.4233	0.0000	0.00
	Bridges	28.3554	1.7658	6.23
	Tunnels	0.0000	0.0000	0.00
	Facilities	125.1610	19.8491	15.86
	Subtotal	**1038.9397**	**21.6149**	
Light Rail	Segments	376.5065	0.0000	0.00
	Bridges	6.1737	0.3516	5.70
	Tunnels	0.0000	0.0000	0.00
	Facilities	244.9960	33.8192	13.80
	Subtotal	**627.6762**	**34.1708**	
Bus	Facilities	54.0204	8.6416	16.00
	Subtotal	**54.0204**	**8.6416**	
Ferry	Facilities	13.3100	0.6991	5.25
	Subtotal	**13.3100**	**0.6991**	
Port	Facilities	317.5230	21.4215	6.75
	Subtotal	**317.5230**	**21.4215**	
Airport	Facilities	170.4160	25.4899	14.96
	Runways	1100.9560	0.0000	0.00
	Subtotal	**1271.3720**	**25.4899**	
	Total	**51,120.85**	**749.00**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	589.4100	48.5440	8.24
	Distribution Lines	1530.1674	2430.4583	158.84
	Subtotal	**2119.5774**	**2479.0023**	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	1493.1720	90.7845	6.08
	Distribution Lines	918.1005	1220.8814	132.98
	Subtotal	**2411.2725**	**1311.6659**	
Natural Gas	Pipelines	0.0000	0.0000	0.00
	Facilities	1.2862	0.0377	2.93
	Distribution Lines	612.0670	418.2649	68.34
	Subtotal	**613.3532**	**418.3026**	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	5.1920	0.2652	5.11
	Subtotal	**5.1920**	**0.2652**	
Electrical Power	Facilities	5321.8000	433.7306	8.15
	Subtotal	**5321.8000**	**433.7306**	
Communication	Facilities	11.0920	0.5822	5.25
	Subtotal	**11.0920**	**0.5822**	
	Total	**10,482.29**	**4,643.55**	

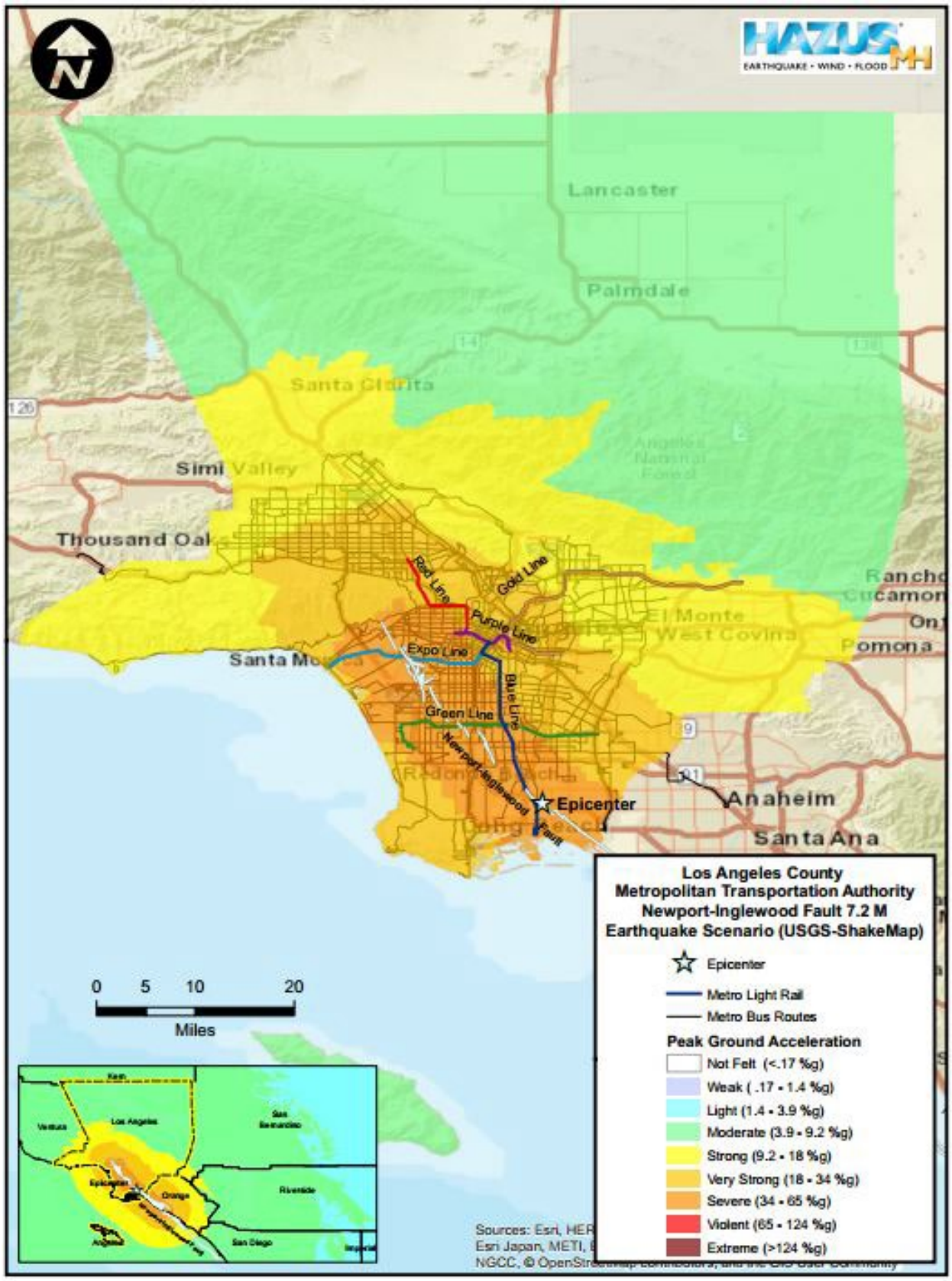
Appendix A: County Listing for the Region

Los Angeles,CA

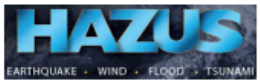
Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California					
	Los Angeles	9,818,605	868,901	265,229	1,134,130
Total Region		**9,818,605**	**868,901**	**265,229**	**1,134,130**

HAZUS Map – Newport Inglewood M7.2



HAZUS Report – Newport Inglewood M7.2



FEMA

RiskMAP
Increasing Resilience Together

Hazus: Earthquake Global Risk Report

Region Name:	CountyofLA
Earthquake Scenario:	M7.2-Newport-Inglewood alt 1 v10
Print Date:	July 27, 2019

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 1 county(ies) from the following state(s):

California

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,083.89 square miles and contains 2,343 census tracts. There are over 3,241 thousand households in the region which has a total population of 9,818,605 people (2010 Census Bureau data). The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 2,391 thousand buildings in the region with a total building replacement value (excluding contents) of 1,134,130 (millions of dollars). Approximately 91.00 % of the buildings (and 77.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 51,120 and 10,482 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 2,391 thousand buildings in the region which have an aggregate total replacement value of 1,134,130 (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 88% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 120 hospitals in the region with a total bed capacity of 28,258 beds. There are 3,230 schools, 50 fire stations, 166 police stations and 12 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes 1,735 hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 61,602.00 (millions of dollars). This inventory includes over 2,994.39 miles of highways, 3,129 bridges, 95,079.70 miles of pipes.

Table 1: Transportation System Lifeline Inventory

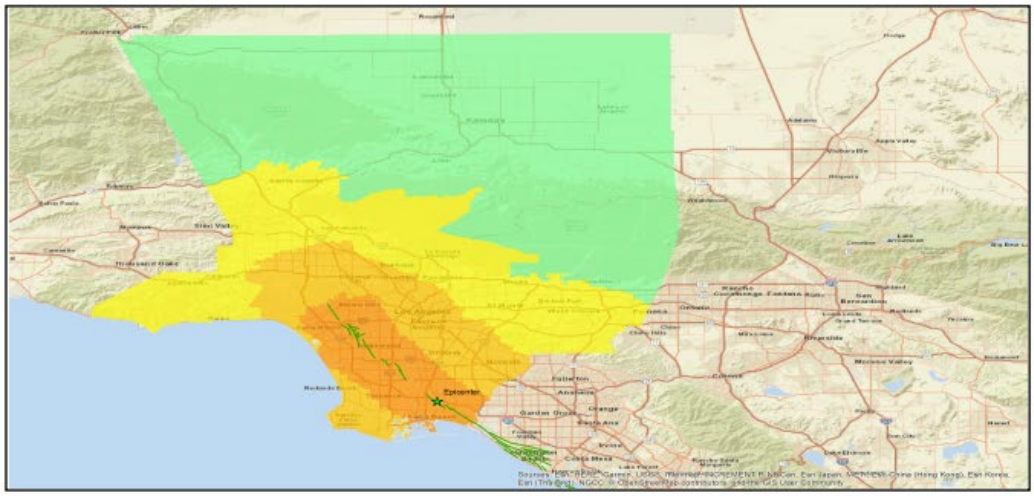
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,129	10915.3464
	Segments	4,391	36848.3892
	Tunnels	17	34.2700
	Subtotal		**47798.0056**
Railways	Bridges	144	28.3554
	Facilities	47	125.1610
	Segments	594	885.4233
	Tunnels	0	0.0000
	Subtotal		**1038.9397**
Light Rail	Bridges	28	6.1737
	Facilities	92	244.9960
	Segments	99	376.5065
	Tunnels	0	0.0000
	Subtotal		**627.6762**
Bus	Facilities	42	54.0204
	Subtotal		**54.0204**
Ferry	Facilities	10	13.3100
	Subtotal		**13.3100**
Port	Facilities	159	317.5230
	Subtotal		**317.5230**
Airport	Facilities	16	170.4160
	Runways	29	1100.9560
	Subtotal		**1271.3720**
	Total		**51,120.80**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	1530.1674
	Facilities	15	589.4100
	Pipelines	0	0.0000
		Subtotal	**2119.5774**
Waste Water	Distribution Lines	NA	918.1005
	Facilities	19	1493.1720
	Pipelines	0	0.0000
		Subtotal	**2411.2725**
Natural Gas	Distribution Lines	NA	612.0670
	Facilities	1	1.2862
	Pipelines	0	0.0000
		Subtotal	**613.3532**
Oil Systems	Facilities	44	5.1920
	Pipelines	0	0.0000
		Subtotal	**5.1920**
Electrical Power	Facilities	41	5321.8000
		Subtotal	**5321.8000**
Communication	Facilities	94	11.0920
		Subtotal	**11.0920**
		Total	**10,482.30**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	M7.2-Newport-Inglewood alt 1 v10
Type of Earthquake	
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	0.00
Latitude of Epicenter	0.00
Earthquake Magnitude	7.15
Depth (km)	0.00
Rupture Length (Km)	0.00
Rupture Orientation (degrees)	0.00
Attenuation Function	

Direct Earthquake Damage

Building Damage

Hazus estimates that about 350,166 buildings will be at least moderately damaged. This is over 15.00 % of the buildings in the region. There are an estimated 21,746 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

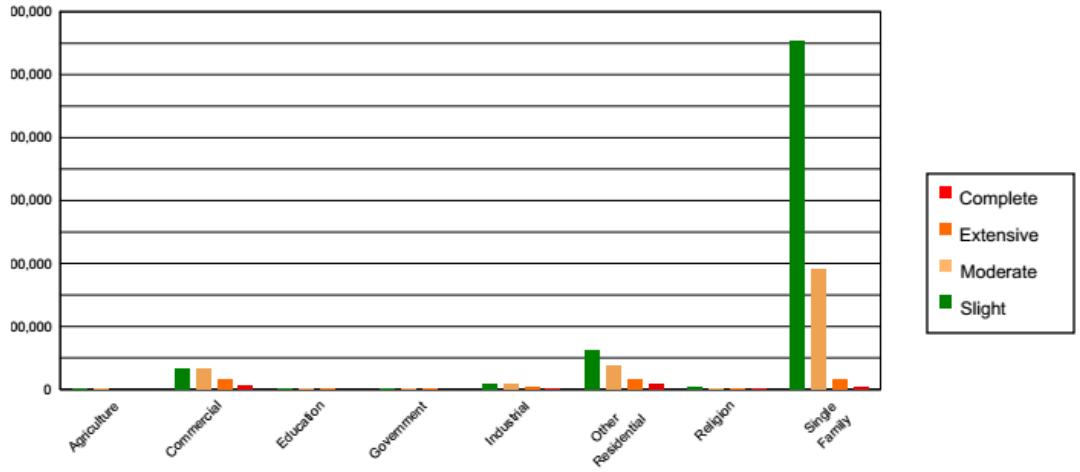


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	1688.96	0.12	658.14	0.10	479.35	0.17	188.48	0.35	87.07	0.40
Commercial	69525.58	5.04	32225.35	4.86	32356.33	11.76	15618.94	29.31	6772.80	31.14
Education	3056.80	0.22	1285.96	0.19	931.24	0.34	354.85	0.67	126.15	0.58
Government	1260.77	0.09	577.50	0.09	542.03	0.20	274.84	0.52	120.86	0.56
Industrial	16615.18	1.20	7366.20	1.11	7954.89	2.89	3957.61	7.43	1809.12	8.32
Other Residential	101754.21	7.38	63126.40	9.53	38792.07	14.10	15755.35	29.57	8048.97	37.01
Religion	5737.11	0.42	2670.34	0.40	2292.27	0.83	1144.35	2.15	527.93	2.43
Single Family	1179272.05	85.52	554517.83	83.71	191782.13	69.71	15995.27	30.02	4253.66	19.56
Total	**1,378,911**		**662,428**		**275,130**		**53,290**		**21,747**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	1253420.05	90.90	610438.66	92.15	214765.72	78.06	18298.29	34.34	5373.35	24.71
Steel	19585.35	1.42	8732.20	1.32	12023.48	4.37	7324.27	13.74	3231.08	14.86
Concrete	20824.98	1.51	10880.57	1.64	9347.15	3.40	4999.17	9.38	2332.93	10.73
Precast	17400.08	1.26	8210.01	1.24	10227.69	3.72	4964.70	9.32	1903.01	8.75
RM	40629.08	2.95	12844.58	1.94	14115.70	5.13	6887.64	12.92	2023.21	9.30
URM	5004.67	0.36	2927.74	0.44	3361.71	1.22	1908.68	3.58	1545.94	7.11
MH	22046.46	1.60	8393.95	1.27	11288.88	4.10	8906.92	16.71	5337.02	24.54
Total	**1,378,911**		**662,428**		**275,130**		**53,290**		**21,747**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 28,258 hospital beds available for use. On the day of the earthquake, the model estimates that only 20,570 hospital beds (73.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 96.00% of the beds will be back in service. By 30 days, 100.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	120	0	0	99
Schools	3,230	0	0	1,923
EOCs	12	0	0	9
PoliceStations	166	0	0	88
FireStations	50	0	0	33

Transportation Lifeline Damage

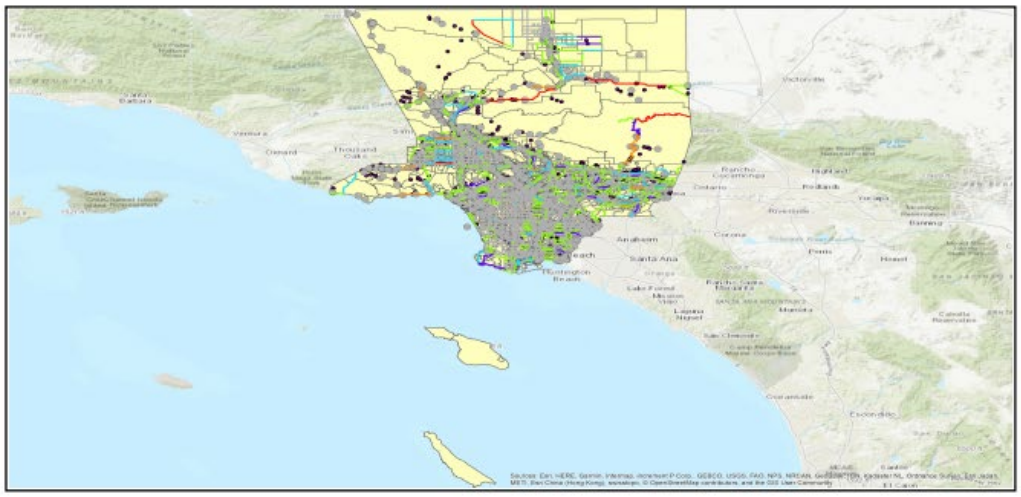


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	4,391	0	0	4,391	4,391
	Bridges	3,129	127	18	3,008	3,045
	Tunnels	17	0	0	17	17
Railways	Segments	594	0	0	594	594
	Bridges	144	0	0	144	144
	Tunnels	0	0	0	0	0
	Facilities	47	10	0	47	47
Light Rail	Segments	99	0	0	99	99
	Bridges	28	0	0	28	28
	Tunnels	0	0	0	0	0
	Facilities	92	20	0	92	92
Bus	Facilities	42	8	0	42	42
Ferry	Facilities	10	2	0	10	10
Port	Facilities	159	0	0	159	159
Airport	Facilities	16	3	0	16	16
	Runways	29	0	0	29	29

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	15	3	0	10	15
Waste Water	19	5	0	8	19
Natural Gas	1	1	0	0	1
Oil Systems	44	29	0	9	37
Electrical Power	41	13	0	16	41
Communication	94	18	0	87	94

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	47,540	16190	4048
Waste Water	28,524	8133	2033
Natural Gas	19,016	0	0
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	3,241,204	728,528	714,317	685,847	522,199	143,522
Electric Power		386,947	222,982	82,316	14,320	576

Induced Earthquake Damage

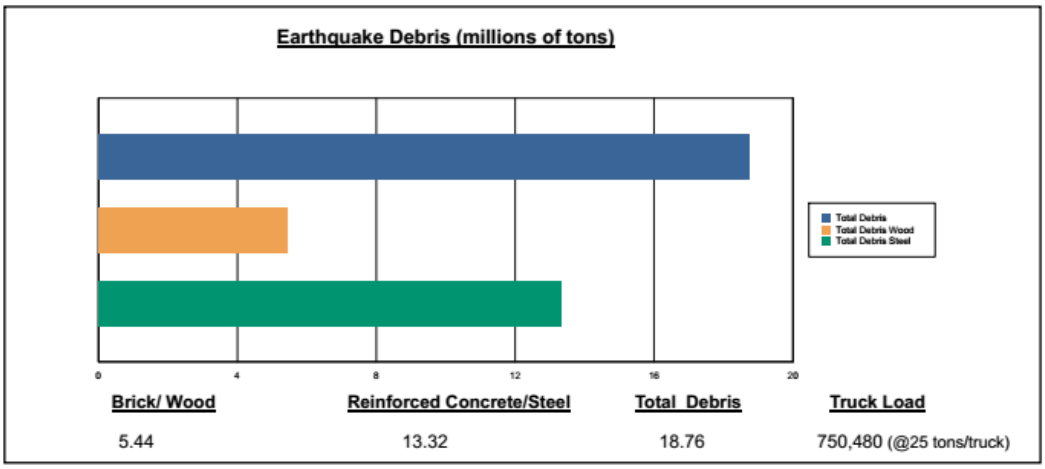
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 195 ignitions that will burn about 2.12 sq. mi 0.05 % of the region's total area.) The model also estimates that the fires will displace about 30,026 people and burn about 2,733 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 18,762,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 29.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 750,480 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



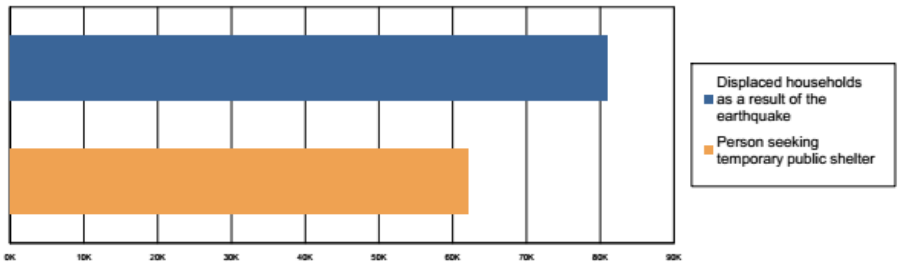
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
5.44	13.32	18.76	750,480 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 80,902 households to be displaced due to the earthquake. Of these, 62,082 people (out of a total population of 9,818,605) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
80,902	62,082

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	377.07	101.36	15.87	31.35
	Commuting	1.06	1.46	2.40	0.47
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	437.64	114.45	16.90	33.18
	Other-Residential	7885.78	1859.19	244.31	474.20
	Single Family	3961.05	501.89	23.59	41.23
	Total	**12,663**	**2,578**	**303**	**580**
2 PM	Commercial	21820.37	5863.76	919.99	1807.19
	Commuting	9.51	13.12	21.62	4.21
	Educational	5601.27	1491.69	237.19	463.70
	Hotels	0.00	0.00	0.00	0.00
	Industrial	3221.91	841.09	124.69	242.43
	Other-Residential	1641.82	389.73	52.12	97.78
	Single Family	855.28	110.58	6.05	9.02
	Total	**33,150**	**8,710**	**1,362**	**2,624**
5 PM	Commercial	15189.00	4074.48	641.63	1244.91
	Commuting	174.97	239.18	396.71	77.17
	Educational	682.36	181.34	28.79	56.41
	Hotels	0.00	0.00	0.00	0.00
	Industrial	2013.69	525.68	77.93	151.52
	Other-Residential	3018.18	716.38	96.24	180.59
	Single Family	1517.38	195.89	10.71	15.94
	Total	**22,596**	**5,933**	**1,252**	**1,727**

Economic Loss

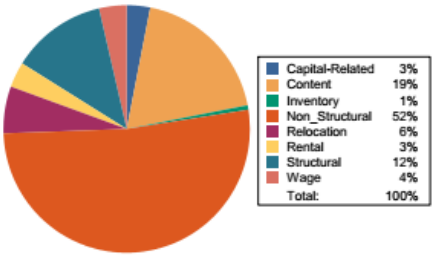
The total economic loss estimated for the earthquake is 93,753.55 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 92,005.41 (millions of dollars); 16 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 50 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

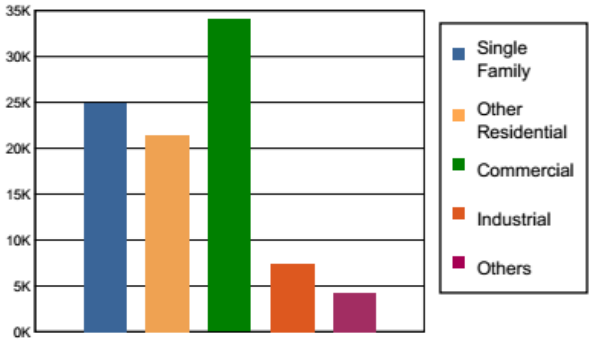


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	241.4570	2898.5956	119.4949	121.5504	3,381.0979
	Capital-Related	0.0000	102.9149	2597.3180	74.0633	29.5968	2,803.8930
	Rental	433.6428	1080.1545	1587.7105	49.5868	65.9224	3,217.0170
	Relocation	1546.1676	760.8657	2456.2679	243.1318	492.4122	5,498.8452
	Subtotal	**1979.8104**	**2185.3921**	**9539.8920**	**486.2768**	**709.4818**	**14900.8531**
Capital Stock Losses							
	Structural	2990.8174	2196.7749	4648.8581	975.6765	572.4820	11,384.6089
	Non_Structural	15304.0991	13759.6995	13480.0236	3369.1859	1978.0528	47,891.0609
	Content	4688.7733	3288.9142	6210.5973	2248.7654	912.7677	17,349.8179
	Inventory	0.0000	0.0000	151.7207	323.3625	3.9875	479.0707
	Subtotal	**22983.6898**	**19245.3886**	**24491.1997**	**6916.9903**	**3467.2900**	**77104.5584**
	Total	**24963.50**	**21430.78**	**34031.09**	**7403.27**	**4176.77**	**92005.41**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	36848.3892	0.0000	0.00
	Bridges	10915.3464	554.9992	5.08
	Tunnels	34.2700	0.1213	0.35
	Subtotal	**47798.0056**	**555.1205**	
Railways	Segments	885.4233	0.0000	0.00
	Bridges	28.3554	1.1839	4.18
	Tunnels	0.0000	0.0000	0.00
	Facilities	125.1610	29.2653	23.38
	Subtotal	**1038.9397**	**30.4492**	
Light Rail	Segments	376.5065	0.0000	0.00
	Bridges	6.1737	0.3265	5.29
	Tunnels	0.0000	0.0000	0.00
	Facilities	244.9960	57.2412	23.36
	Subtotal	**627.6762**	**57.5677**	
Bus	Facilities	54.0204	11.1165	20.58
	Subtotal	**54.0204**	**11.1165**	
Ferry	Facilities	13.3100	2.9872	22.44
	Subtotal	**13.3100**	**2.9872**	
Port	Facilities	317.5230	82.2394	25.90
	Subtotal	**317.5230**	**82.2394**	
Airport	Facilities	170.4160	31.1027	18.25
	Runways	1100.9560	0.0000	0.00
	Subtotal	**1271.3720**	**31.1027**	
	Total	**51,120.85**	**770.58**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	589.4100	55.3611	9.39
	Distribution Lines	1530.1674	72.8552	4.76
	Subtotal	**2119.5774**	**128.2163**	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	1493.1720	154.8867	10.37
	Distribution Lines	918.1005	36.5970	3.99
	Subtotal	**2411.2725**	**191.4837**	
Natural Gas	Pipelines	0.0000	0.0000	0.00
	Facilities	1.2862	0.2713	21.09
	Distribution Lines	612.0670	0.0000	0.00
	Subtotal	**613.3532**	**0.2713**	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	5.1920	1.0521	20.26
	Subtotal	**5.1920**	**1.0521**	
Electrical Power	Facilities	5321.8000	655.7230	12.32
	Subtotal	**5321.8000**	**655.7230**	
Communication	Facilities	11.0920	0.8117	7.32
	Subtotal	**11.0920**	**0.8117**	
	Total	**10,482.29**	**977.56**	

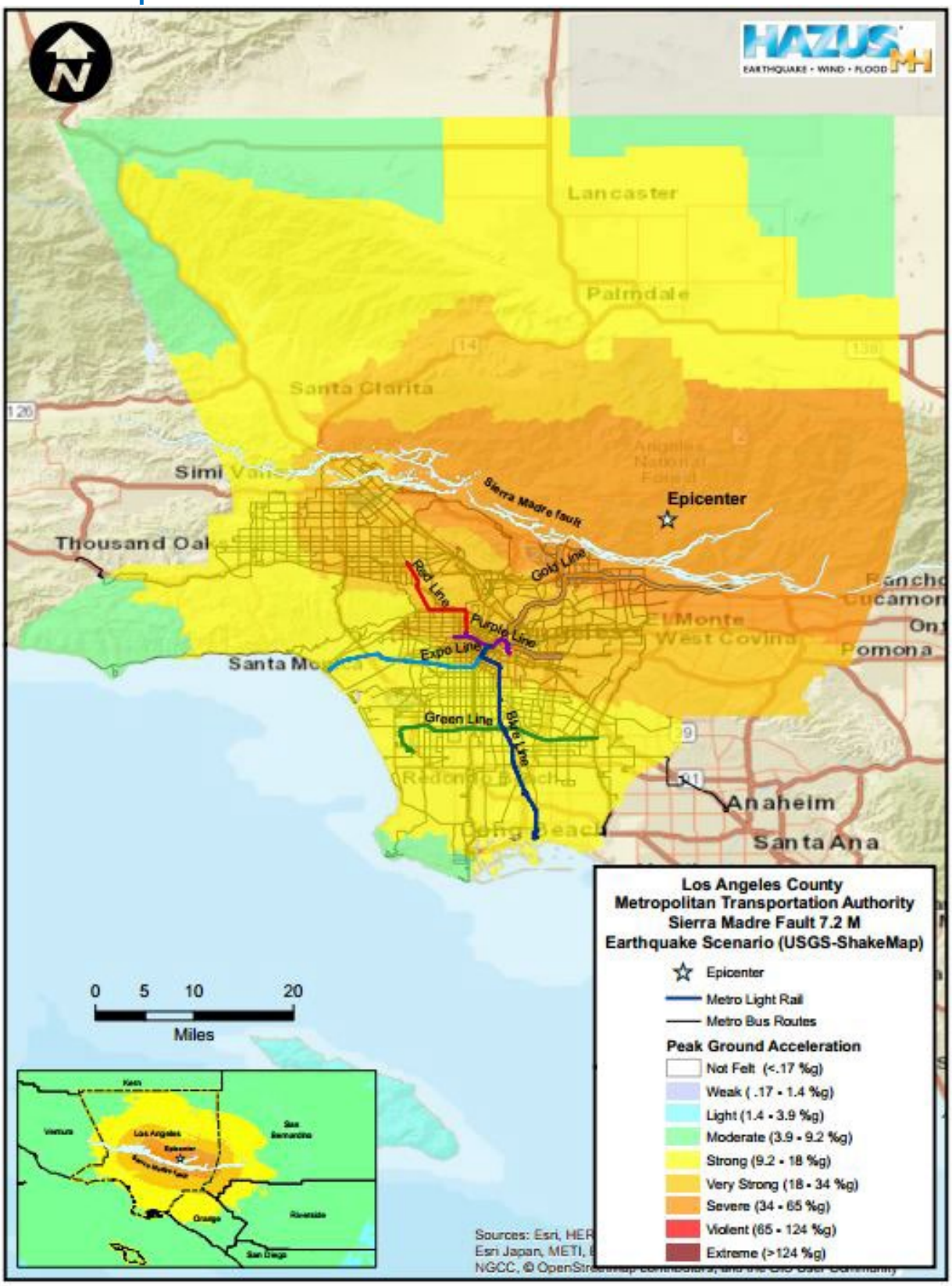
Appendix A: County Listing for the Region

Los Angeles,CA

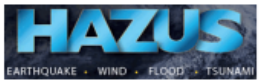
Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California					
	Los Angeles	9,818,605	868,901	265,229	1,134,130
Total Region		**9,818,605**	**868,901**	**265,229**	**1,134,130**

HAZUS Map – Sierra Madre M7.2



HAZUS Report – Sierra Madre M7.2



FEMA

RiskMAP
Increasing Resilience Together

Hazus: Earthquake Global Risk Report

Region Name:	CountyofLA
Earthquake Scenario:	M7.2-Sierra Madre v11
Print Date:	August 02, 2019

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

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FEMA

Table of Contents

General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 1 county(ies) from the following state(s):

California

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,083.89 square miles and contains 2,343 census tracts. There are over 3,241 thousand households in the region which has a total population of 9,818,605 people (2010 Census Bureau data). The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 2,391 thousand buildings in the region with a total building replacement value (excluding contents) of 1,134,130 (millions of dollars). Approximately 91.00 % of the buildings (and 77.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 51,120 and 10,482 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 2,391 thousand buildings in the region which have an aggregate total replacement value of 1,134,130 (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 88% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 120 hospitals in the region with a total bed capacity of 28,258 beds. There are 3,230 schools, 50 fire stations, 166 police stations and 12 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes 1,735 hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 61,602.00 (millions of dollars). This inventory includes over 2,994.39 miles of highways, 3,129 bridges, 95,079.70 miles of pipes.

Table 1: Transportation System Lifeline Inventory

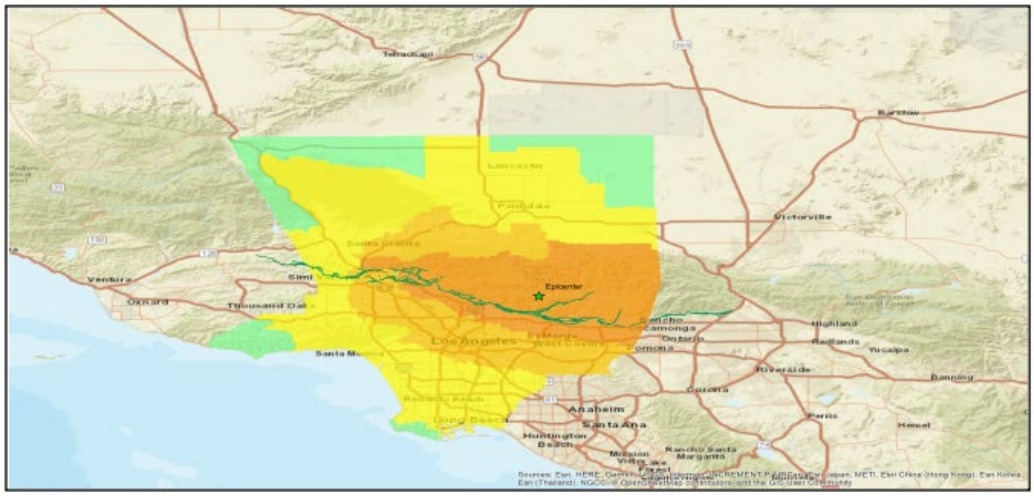
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,129	10915.3464
	Segments	4,391	36848.3892
	Tunnels	17	34.2700
	Subtotal		**47798.0056**
Railways	Bridges	144	28.3554
	Facilities	47	125.1610
	Segments	594	885.4233
	Tunnels	0	0.0000
	Subtotal		**1038.9397**
Light Rail	Bridges	28	6.1737
	Facilities	92	244.9960
	Segments	99	376.5065
	Tunnels	0	0.0000
	Subtotal		**627.6762**
Bus	Facilities	42	54.0204
	Subtotal		**54.0204**
Ferry	Facilities	10	13.3100
	Subtotal		**13.3100**
Port	Facilities	159	317.5230
	Subtotal		**317.5230**
Airport	Facilities	16	170.4160
	Runways	29	1100.9560
	Subtotal		**1271.3720**
	Total		**51,120.80**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	1530.1674
	Facilities	15	589.4100
	Pipelines	0	0.0000
		Subtotal	**2119.5774**
Waste Water	Distribution Lines	NA	918.1005
	Facilities	19	1493.1720
	Pipelines	0	0.0000
		Subtotal	**2411.2725**
Natural Gas	Distribution Lines	NA	612.0670
	Facilities	1	1.2862
	Pipelines	0	0.0000
		Subtotal	**613.3532**
Oil Systems	Facilities	44	5.1920
	Pipelines	0	0.0000
		Subtotal	**5.1920**
Electrical Power	Facilities	41	5321.8000
		Subtotal	**5321.8000**
Communication	Facilities	94	11.0920
		Subtotal	**11.0920**
		Total	**10,482.30**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	M7.2-Sierra Madre v11
Type of Earthquake	
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	0.00
Latitude of Epicenter	0.00
Earthquake Magnitude	7.16
Depth (km)	0.00
Rupture Length (Km)	0.00
Rupture Orientation (degrees)	0.00
Attenuation Function	

Direct Earthquake Damage

Building Damage

Hazus estimates that about 245,221 buildings will be at least moderately damaged. This is over 10.00 % of the buildings in the region. There are an estimated 8,668 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

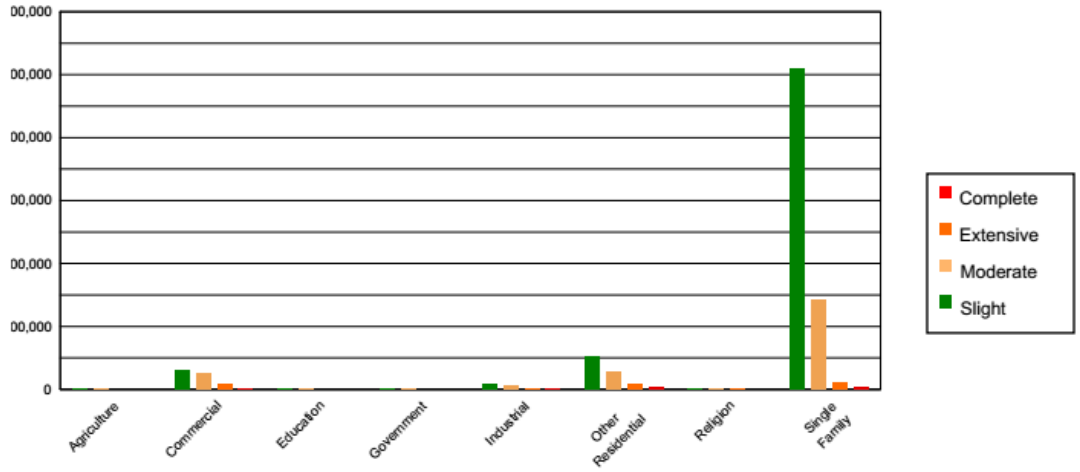


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	1803.71	0.12	664.56	0.11	439.94	0.21	146.32	0.46	47.47	0.55
Commercial	89933.72	5.84	31710.57	5.23	24571.55	12.00	8207.46	25.85	2075.70	23.94
Education	3546.31	0.23	1212.87	0.20	733.34	0.36	214.89	0.68	47.59	0.55
Government	1642.56	0.11	552.51	0.09	407.94	0.20	139.19	0.44	33.81	0.39
Industrial	20285.37	1.32	7614.78	1.26	6697.42	3.27	2430.76	7.65	674.67	7.78
Other Residential	134398.27	8.73	52505.45	8.66	27772.06	13.56	9870.19	31.08	2931.01	33.81
Religion	7390.93	0.48	2540.73	0.42	1697.84	0.83	584.54	1.84	157.96	1.82
Single Family	1280750.48	83.18	509730.28	84.04	142478.02	69.57	10161.37	32.00	2700.77	31.15
Total	**1,539,751**		**606,532**		**204,798**		**31,755**		**8,669**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	1383681.51	89.86	551839.28	90.98	153229.33	74.82	10574.74	33.30	2971.20	34.27
Steel	27458.46	1.78	9668.70	1.59	9478.66	4.63	3389.91	10.68	900.64	10.39
Concrete	28067.50	1.82	10320.43	1.70	6860.66	3.35	2526.90	7.96	609.33	7.03
Precast	22613.22	1.47	8339.91	1.38	8187.54	4.00	2908.89	9.16	655.94	7.57
RM	50111.36	3.25	11605.92	1.91	10349.38	5.05	3831.73	12.07	601.82	6.94
URM	7296.44	0.47	3219.85	0.53	2666.34	1.30	1053.35	3.32	512.75	5.91
MH	20522.88	1.33	11537.67	1.90	14026.20	6.85	7469.20	23.52	2417.28	27.88
Total	**1,539,751**		**606,532**		**204,798**		**31,755**		**8,669**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 28,258 hospital beds available for use. On the day of the earthquake, the model estimates that only 22,172 hospital beds (78.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 97.00% of the beds will be back in service. By 30 days, 100.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	120	0	0	106
Schools	3,230	0	0	2,514
EOCs	12	0	0	10
PoliceStations	166	0	0	130
FireStations	50	0	0	30

Transportation Lifeline Damage

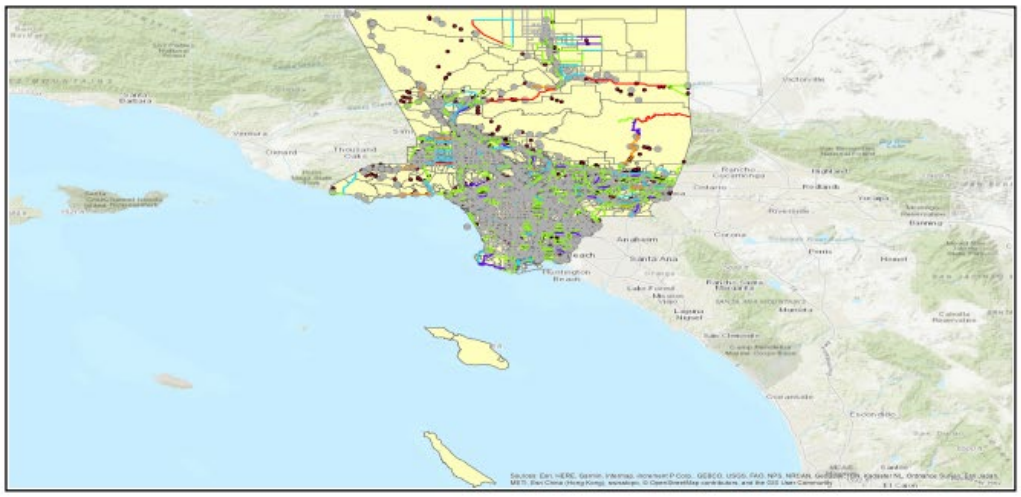


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	4,391	0	0	4,391	4,391
	Bridges	3,129	21	1	3,105	3,119
	Tunnels	17	0	0	17	17
Railways	Segments	594	0	0	594	594
	Bridges	144	0	0	144	144
	Tunnels	0	0	0	0	0
	Facilities	47	1	0	47	47
Light Rail	Segments	99	0	0	99	99
	Bridges	28	0	0	28	28
	Tunnels	0	0	0	0	0
	Facilities	92	4	0	92	92
Bus	Facilities	42	2	0	42	42
Ferry	Facilities	10	0	0	10	10
Port	Facilities	159	0	0	159	159
Airport	Facilities	16	1	0	16	16
	Runways	29	0	0	29	29

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	15	3	0	12	15
Waste Water	19	2	0	12	19
Natural Gas	1	0	0	1	1
Oil Systems	44	0	0	44	44
Electrical Power	41	10	0	25	41
Communication	94	50	0	53	94

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	47,540	9218	2305
Waste Water	28,524	4631	1158
Natural Gas	19,016	1586	397
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	3,241,204	250,325	238,321	214,891	98,854	0
Electric Power		133,488	78,204	29,595	5,277	195

Induced Earthquake Damage

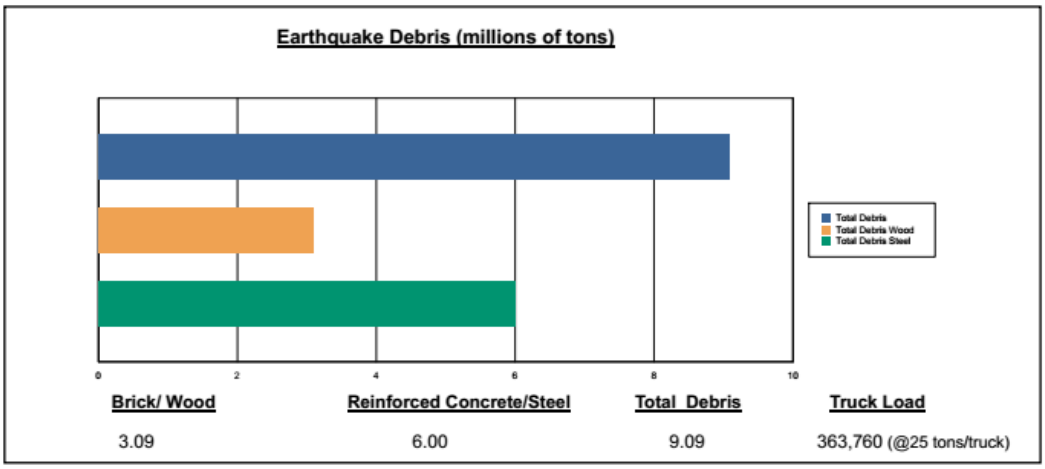
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 157 ignitions that will burn about 1.04 sq. mi 0.03 % of the region's total area.) The model also estimates that the fires will displace about 11,815 people and burn about 1,162 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 9,094,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 34.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 363,760 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



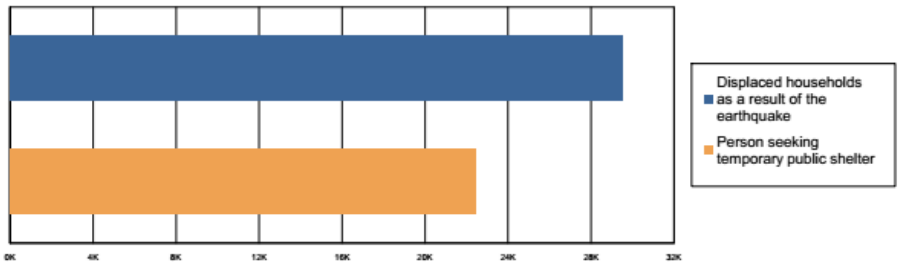
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
3.09	6.00	9.09	363,760 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 29,496 households to be displaced due to the earthquake. Of these, 22,479 people (out of a total population of 9,818,605) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
29,496	22,479

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	159.23	36.63	5.24	10.33
	Commuting	0.31	0.58	0.77	0.16
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	191.88	42.86	5.76	11.29
	Other-Residential	2892.77	527.83	55.62	106.66
	Single Family	2868.90	318.99	12.21	20.79
	Total	**6,113**	**927**	**80**	**149**
2 PM	Commercial	9203.23	2116.55	303.38	594.94
	Commuting	2.76	5.25	6.97	1.45
	Educational	2517.77	567.18	81.56	159.08
	Hotels	0.00	0.00	0.00	0.00
	Industrial	1410.97	314.99	42.49	82.51
	Other-Residential	608.46	112.82	12.23	22.61
	Single Family	610.22	69.46	3.19	4.53
	Total	**14,353**	**3,186**	**450**	**865**
5 PM	Commercial	6407.52	1473.15	212.10	410.66
	Commuting	51.18	97.38	129.12	26.79
	Educational	334.20	76.71	11.17	21.85
	Hotels	0.00	0.00	0.00	0.00
	Industrial	881.86	196.87	26.55	51.57
	Other-Residential	1093.43	202.10	22.04	40.78
	Single Family	1090.98	124.43	5.73	8.14
	Total	**9,859**	**2,171**	**407**	**560**

Economic Loss

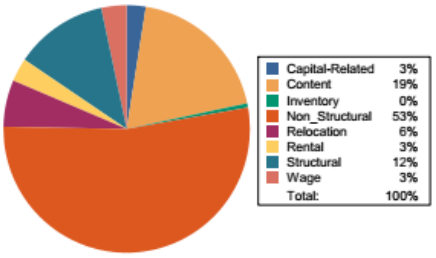
The total economic loss estimated for the earthquake is 53,452.10 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 52,465.52 (millions of dollars); 15 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 57 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

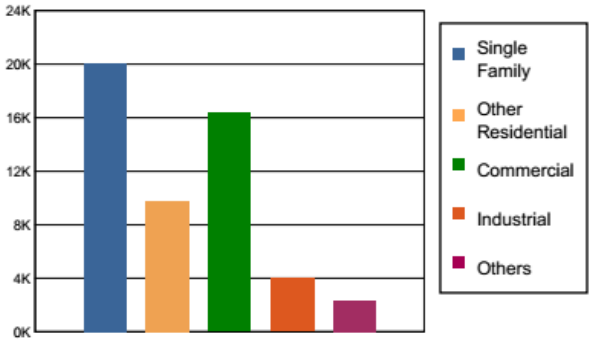


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	107.5233	1455.4768	67.9113	67.8940	1,698.8054
	Capital-Related	0.0000	45.6984	1262.7966	42.0650	17.8809	1,368.4409
	Rental	326.4661	444.3822	813.7970	29.1403	35.5513	1,649.3369
	Relocation	1146.3490	345.7675	1261.3673	152.9196	277.1000	3,183.5034
	Subtotal	**1472.8151**	**943.3714**	**4793.4377**	**292.0362**	**398.4262**	**7900.0866**
Capital Stock Losses							
	Structural	2417.3961	998.1220	2158.4707	533.0490	309.3284	6,416.3662
	Non_Structural	12406.1033	6307.3647	6313.1739	1794.4822	1099.4362	27,920.5603
	Content	3745.0500	1508.8862	3000.7951	1194.8010	530.6243	9,980.1566
	Inventory	0.0000	0.0000	73.3276	172.1536	2.8664	248.3476
	Subtotal	**18568.5494**	**8814.3729**	**11545.7673**	**3694.4858**	**1942.2553**	**44565.4307**
	Total	**20041.36**	**9757.74**	**16339.21**	**3986.52**	**2340.68**	**52465.52**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	36848.3892	0.0000	0.00
	Bridges	10915.3464	207.6083	1.90
	Tunnels	34.2700	0.3349	0.98
	Subtotal	**47798.0056**	**207.9432**	
Railways	Segments	885.4233	0.0000	0.00
	Bridges	28.3554	0.2786	0.98
	Tunnels	0.0000	0.0000	0.00
	Facilities	125.1610	16.0292	12.81
	Subtotal	**1038.9397**	**16.3078**	
Light Rail	Segments	376.5065	0.0000	0.00
	Bridges	6.1737	0.1177	1.91
	Tunnels	0.0000	0.0000	0.00
	Facilities	244.9960	39.5211	16.13
	Subtotal	**627.6762**	**39.6388**	
Bus	Facilities	54.0204	8.9750	16.61
	Subtotal	**54.0204**	**8.9750**	
Ferry	Facilities	13.3100	0.6383	4.80
	Subtotal	**13.3100**	**0.6383**	
Port	Facilities	317.5230	20.0176	6.30
	Subtotal	**317.5230**	**20.0176**	
Airport	Facilities	170.4160	21.8276	12.81
	Runways	1100.9560	0.0000	0.00
	Subtotal	**1271.3720**	**21.8276**	
	Total	**51,120.85**	**315.35**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	589.4100	54.5316	9.25
	Distribution Lines	1530.1674	41.4816	2.71
	Subtotal	**2119.5774**	**96.0132**	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	1493.1720	94.3508	6.32
	Distribution Lines	918.1005	20.8373	2.27
	Subtotal	**2411.2725**	**115.1881**	
Natural Gas	Pipelines	0.0000	0.0000	0.00
	Facilities	1.2862	0.0362	2.81
	Distribution Lines	612.0670	7.1387	1.17
	Subtotal	**613.3532**	**7.1749**	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	5.1920	0.1973	3.80
	Subtotal	**5.1920**	**0.1973**	
Electrical Power	Facilities	5321.8000	450.3216	8.46
	Subtotal	**5321.8000**	**450.3216**	
Communication	Facilities	11.0920	2.3385	21.08
	Subtotal	**11.0920**	**2.3385**	
	Total	**10,482.29**	**671.23**	

Appendix A: County Listing for the Region

Los Angeles,CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California					
	Los Angeles	9,818,605	868,901	265,229	1,134,130
Total Region		**9,818,605**	**868,901**	**265,229**	**1,134,130**

U.S. Department of Homeland Security
FEMA Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

July 13, 2022

Moniek Pointer
Hazard Mitigation Project Manager
Emergency & Homeland Security Preparedness
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012

Dear Moniek Pointer:

The Federal Emergency Management Agency (FEMA) has completed its review of the *2022 Los Angeles Metro All-Hazards Mitigation Plan* and has determined that this plan is eligible for final approval pending its adoption by the Los Angeles County Metropolitan Transportation Authority.

Formal adoption documentation must be submitted to FEMA Region 9 within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. FEMA will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact the FEMA Region 9 Hazard Mitigation Planning Team at fema-r9-mitigation-planning@fema.dhs.gov.

Sincerely,

Alison Kearns
Planning and Implementation Branch Chief
Mitigation Division
FEMA Region 9

Enclosure (1)
Los Angeles County Metro Plan Review Tool, dated July 13, 2022

cc: Victoria LaMar-Haas, Hazard Mitigation Planning Chief, California Governor's Office of Emergency Services
Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of Emergency Services

REGION IX LOCAL HAZARD MITIGATION PLAN REVIEW TOOL

The *Local Hazard Mitigation Plan Review Tool* demonstrates how the Local Hazard Mitigation Plan meets the regulation in 44 CFR §201.6 and offers State and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The **Regulation Checklist** provides a summary of FEMA's evaluation of whether the plan has addressed all requirements.
- The **Plan Assessment** identifies the plan's strengths as well as documents areas for future improvement. This section also includes a list of resources for implementation of the plan.
- The **Multi-Jurisdiction Summary Sheet** is a mandatory worksheet for multi-jurisdictional plans that is used to document which jurisdictions are eligible to adopt the plan.
- The **Hazard Identification and Risk Assessment Matrix** is a tool for plan reviewers to identify if all components of Element B are met.

Jurisdiction: Los Angeles County Metropolitan Transportation Authority (LA Metro)	**Title of Plan:** All-Hazards Mitigation Plan	**Date of Plan:** 11-20-2021
Local Point of Contact: Moniek Pointer	**Address:** One Gateway Plaza Los Angeles, CA 90012	
Title: Hazard Mitigation Project Manager		
Agency: Emergency & Homeland Security Preparedness		
Phone Number: (213) 617-6227	**E-Mail:** PointerMo@metro.net	

State Reviewer: Phillip John Labra	**Title:** Sr. Local Mitigation Planner	**Date:** 3-2-2022
Date Received at State Agency	11-20-2022	
Date Sent to FEMA	3-4-2022	

FEMA Reviewer: Philip Gilbertson	**Title:** Community Planner	**Date:** 3/24/2022
Date Received in FEMA Region IX	3/4/2022	
Date Not Approved	4/5/2022	
Date Approvable Pending Adoption	7/13/2022	
Date Approved		

SECTION 1:
REGULATION CHECKLIST

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		Location in Plan (section and/or page number)	Met	Not Met
ELEMENT A. PLANNING PROCESS				
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	a. Does the plan provide documentation of how the plan was prepared? Note: This documentation must include the schedule or timeframe and activities that made up the plan's development as well as who was involved.	Table: Planning Phases Progression Plan Methodology Planning Team Involvement Table: Planning Team Level Participation Table: Planning Team Timeline Part IV: Attachments Web Posting Planning Team Minutes and Attendance p.11-17, p.237-252	X	
	b. Does the plan list the jurisdiction(s) participating in the plan that are seeking approval?	Credits, Acknowledgements Introduction Planning Process Planning Team Level of Participation p.7	X	
	c. Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.)	Credits Point of Contact Table: Planning Team Level of Participation p.2-3	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		**Location in Plan** **(section and/or page number)**	**Met**	**Not Met**
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	a. Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?	Secondary Stakeholders Attachments: External Agencies Email Invite Attachments: Web Posting, Secondary Stakeholder Input p.7-8, p.18, p.235	X	
	b. Does the plan identify how the stakeholders were invited to participate in the process?	Secondary Stakeholders Attachments: External Agencies Email Invite p.7-8, p.18, p.235	X	
A3. Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	a. Does the plan document how the public was given the opportunity to be involved in the planning process?	Planning Phases Progression Secondary Stakeholders Attachments: Web Posting p.18, p.235-236	X	
	b. Does the plan document how the public's feedback was incorporated into the plan?	Secondary Stakeholders p.18, p.228-234	X	
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))		Planning Approach Use of Existing Data p.21-22, p.31	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		**Location in Plan** **(section and/or page number)**	**Met**	**Not Met**
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))		Continued Public Involvement p.223-224	X	
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	a. Does the plan identify how, when, and by whom the plan will be **monitored** (how will implementation be tracked) over time?	Planning Phases Progression Plan Maintenance - Method and Scheduling of Plan Implementation Monitoring and Implementing the Plan Evaluating and Updating the Plan p.219-220	X	
	b. Does the plan identify how, when, and by whom the plan will be **evaluated** (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?	Monitoring and Implementing the Plan Evaluating and Updating the Plan p.219, 221, 223	X	
	c. Does the plan identify how, when, and by whom the plan will be **updated** during the 5-year cycle?	Monitoring and Implementing the Plan Method and Scheduling of Plan Implementation Evaluating and Updating the Plan Annual Implementation Report p.219, p.223	X	
ELEMENT A: REQUIRED REVISIONS None				

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		Location in Plan (section and/or page number)	Met	Not Met
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT (Reviewer: See Section 4 for assistance with Element B)				
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	a. Does the plan include a general description of all natural hazards that can affect each jurisdiction?	Part II Risk Assessment - Hazard Identification Earthquake Hazard - Local Conditions Flood Hazard - Local Conditions Wildfire Hazard – Local Conditions Windstorm Hazard – Local Conditions Tsunami Hazard – Local Conditions Landslide Hazard – Local Conditions Climate Change Hazard - Local Conditions Epidemic/Pandemic/Vector-Borne Disease Hazard - Local Conditions	X	
	b. Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Part II Risk Assessment, Hazard Identification Profiling Hazard Events Table: Vulnerability – Location, Extent, and Probability p.31	X	
	c. Does the plan include a description of the **type** of all natural hazards that can affect each jurisdiction?	Part II Risk Assessment, Hazard Identification Profiling Hazard Events Table: Vulnerability – Location, Extent, and Probability	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		Location in Plan (section and/or page number)	Met	Not Met
	d. Does the plan include a description of the **location** for all natural hazards that can affect each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability	X	
	e. Does the plan include a description of the **extent** for all natural hazards that can affect each jurisdiction?	Table: Calculated Priority Risk Index Ranking for Metro Service Area Table: Vulnerability – Location, Extent, and Probability for Metro Service Area	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		**Location in Plan** **(section and/or page number)**	**Met**	**Not Met**
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	a. Does the plan include information on **previous occurrences** of hazard events for each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability for Metro Service Area Earthquake Hazard - Previous Occurrences of Earthquakes Wildfire Hazard - Previous Occurrences of Earthquakes Windstorm Hazard - Previous Occurrences of Earthquakes Tsunami Hazard - Previous Occurrences of Earthquakes Landslide Hazard - Previous Occurrences of Earthquakes Flood Hazards, Previous Occurrences of Flooding in the City Climate Change Hazards, Previous Occurrences of Climate Change in the City Epidemic/Pandemic/Vector-Borne Disease Hazards, Previous Occurrences of Epidemic/Pandemic/Vector-Borne Disease	X	
	b. Does the plan include information on the **probability** of future hazard events for each jurisdiction?	Table: Calculated Priority Risk Index Ranking Table: Vulnerability – Location, Extent, and Probability for Metro Service Area	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		**Location in Plan** **(section and/or page number)**	**Met**	**Not Met**
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	a. Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)?	Table: Critical Facilities Vulnerable to Hazards Earthquake Hazards, Impact of Earthquakes in the City Wildfire Hazard - Impact of Wildfire in the City Windstorm Hazard - Impact of Windstorm in the City Tsunami Hazard - Impact of Tsunami in the City Landslide Hazard - Impact of Landslides in the City Flood Hazard – Impact of Flooding in the City Climate Change Hazard - Impact of Climate Change in the City Epidemic/Pandemic/Vector-Borne Diseases Hazards, Impact of Epidemic/Pandemic/Vector-Borne Diseases in the City	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		Location in Plan (section and/or page number)	Met	Not Met
	b. Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?	Table: Vulnerability – Location, Extent, and Probability in Metro Service Area Capability Assessment/Inventory of Existing Assets Table: Critical Facilities Vulnerable to Hazards Earthquake Hazard - Local Conditions Wildfire Hazard, Local Conditions Windstorm Hazard - Local Conditions Tsunami Hazard - Local Conditions Landslide Hazard - Local Conditions Flood Hazard - Local Conditions Climate Change Hazard - Local Conditions Epidemic/Pandemic/Vector-Borne Diseases Hazard - Local Conditions Attachments: HAZUS Reports	X	
B4. Does the plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))		Repetitive Loss Properties -- NFIP, 8; p.8-9	X	
ELEMENT B: REQUIRED REVISIONS None				

<table>
<tr><th>1. REGULATION CHECKLIST
Regulation (44 CFR 201.6 Local Mitigation Plans)</th><th>Location in Plan
(section and/or page number)</th><th>Met</th><th>Not Met</th></tr>
<tr><td colspan="4">ELEMENT C. MITIGATION STRATEGY</td></tr>
<tr><td rowspan="2">C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))

C1a
<table><tr><th>Planning</th><th>Admin</th><th>Financial</th><th>Outreach</th></tr><tr><td>Met</td><td>Met</td><td>Met</td><td>Met</td></tr><tr><td>20-22</td><td>18-20</td><td>18-20; Comprehensive Annual Financial Report (2018), 21</td><td>18-20</td></tr></table>
C1b Expand and Improve
<table><tr><th>Planning</th><th>Admin</th><th>Financial</th><th>Outreach</th></tr><tr><td>Met</td><td>Met</td><td>Met</td><td>Met</td></tr><tr><td>MH-3/5 (158)
MH-10/11 (159)
CC-1 (163)
CC-17/18 (169)
MH-5 (172)
EQ-2/3 (173)
EQ-1/2 (187)
LND-3 (190)
WND-1/ TSU-1 (190)
WF-1 (188)</td><td>MH-1 (171, 193)
MH-6 (172)
FLD-2 (188)</td><td>221</td><td>Community Relations, 19</td></tr></table></td><td>a. Does the plan document each jurisdiction's existing authorities, policies, programs and resources?</td><td>Capability Assessment – Existing Processes and Programs

Use of Existing Data</td><td>X</td><td></td></tr>
<tr><td>b. Does the plan document each jurisdiction's ability to expand on and improve these existing policies and programs?</td><td>Capability Assessment – Existing Processes and Programs

Matrix: Mitigation Actions

Implementation through Existing Programs</td><td>X</td><td></td></tr>
<tr><td colspan="2">C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))</td><td>National Flood Insurance Program

Flood Hazards, National Flood Insurance Program

Matrix: Mitigation Actions, Flood Action Items
p.8; 93</td><td>X</td><td></td></tr>
</table>

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		**Location in Plan** **(section and/or page number)**	**Met**	**Not Met**
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))		Goals Matrix: Mitigation Actions p.145-146	X	
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	a. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts from hazards?	Part III: Mitigation Strategies Matrix: Mitigation Actions p.144-145	X	
	b. Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?	Matrix: Mitigation Actions See p.150	X	
	c. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?	Part III: Mitigation Strategies Building and Infrastructure Matrix: Mitigation Actions	X	
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	a. Does the plan explain how the mitigation actions will be prioritized (including cost benefit review)?	Benefit/Cost Ratings Priority Rating Matrix: Mitigation Actions Economic Analysis of Mitigation Projects FEMA Benefit-Cost Analysis Guidelines p.146-148; 221-222	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)		Location in Plan (section and/or page number)	Met	Not Met
	b. Does the plan identify the position, office, department, or agency responsible for implementing and administering the action, potential funding sources and expected timeframes for completion?	Capability Assessment – Existing Processes and Programs Matrix: Mitigation Actions p.150-218; 221	X	
C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?	Implementation through Existing Programs Capability Assessment – Existing Processes and Programs -- Mitigation Actions Matrix, 150 p.144, 220-221	X	
	b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?	Implementation through Existing Programs Capability Assessment – Existing Processes and Programs p. 220-221	X	
	c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.	Implementation through Existing Programs Matrix: Mitigation Actions	X	

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)	Location in Plan (section and/or page number)	Met	Not Met
ELEMENT C: REQUIRED REVISIONS None			
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (Applicable to plan updates only)			
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	N/A		
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	N/A		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	N/A		
ELEMENT D: REQUIRED REVISIONS None			
ELEMENT E. PLAN ADOPTION			
E1. Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Pending APA status from FEMA.		X
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	N/A		
ELEMENT E: REQUIRED REVISIONS E1. Once granted APA status, the plan must be formally adopted by the local jurisdiction within 12-months. Upon receipt of the formal adoption documentation, FEMA will approve the plan and the jurisdiction will be eligible for designated pre-disaster mitigation grant opportunities.			
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (Optional for State Reviewers only; not to be completed by FEMA)			
F1.			
F2.			
ELEMENT F: REQUIRED REVISIONS			

SECTION 2:
PLAN ASSESSMENT

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

Strengths:

1) Easy to follow description of the planning process and planning team participation in plan development. Excellent use of a table (p.13) to outline stakeholder actions throughout the process.

2) Excellent use of a table (ref. p.228) to identify how secondary stakeholder input was gathered and incorporated into the plan. Consider expanding this to include public comments in future updates. This information will provide specific direction for the next plan update.

Opportunities for Improvement:

1) Public/Stakeholder Engagement: the timeline included in the planning process indicates that public engagement was not sought until 12+ months into the planning process, following creation of the draft. We strongly recommend a more robust public engagement process earlier in the planning process to ensure public and external feedback is incorporated and the plan accounts for that feedback in areas such as, planning process, mitigation action prioritization, and action implementation.

2) Equity Considerations: while not required, the plan made little or no mention of equity as a planning consideration. We encourage planning teams to explicitly consider how equity may factor into hazard mitigation planning, the risk and vulnerability assessment, and the selection and prioritization of mitigation actions.

Element B: Hazard Identification and Risk Assessment

Strengths:

1) The use of the Calculated Priority Risk Index (ref. p.31-32) made is easy to understand how the identified hazards were prioritized and which factors were considered. In addition to the CRPI rankings, it would be helpful from a plan review standpoint, to identify which hazards are of most concern to LA Metro using a simple 'low-medium-high' schema.

Opportunities for Improvement:

1) Within the risk and vulnerability assessment for each hazard, consider including a more detailed analysis of specific risks and vulnerabilities to LA Metro facilities, operations, and patrons. While just such an analysis was included for earthquakes, we encourage you to expand this assessment to all hazard profiles. General descriptions of hazard impacts are useful but may not directly affect LA Metro areas and scope of responsibility. A more robust analysis of affected populations (demographics), geographic locations, potential monetary losses, and effects on LA Metro operations, would help inform the selection of mitigation actions, as well as identify areas for partnership with neighboring or overlapping jurisdictions.

2) Data Sources: Consider exploring and including data sources that break-down hazards, impacts (including past losses), and risk at the local level. Consider the use of data at the county or census tract level (ref. Spatial Hazard Events and Losses Database – SHELDUS; FEMA's National Risk Index) in future updates.

Element C: Mitigation Strategy

Strengths:

1) Easy to follow capabilities assessment (ref. C1.a. & C1.b.) on p.18.

2) Great use of table to identify mitigation actions, implementation details, which mitigation goals each action addresses, priority, etc.. Use this as a benchmark for future updates.

3) Glad to see an acknowledgement to begin the update planning process at least one year in advance (ref. p.221). A more conservative estimate might be to begin at least 18-months in advance in order to allow for CalOES/FEMA review processes.

Opportunities for Improvement:

1) Please note: the 'Table: Mitigation Actions Matrix' identified *Pre-Disaster Mitigation Grants* as a potential funding source. The Pre-Disaster Mitigation (PDM) Grant Program is authorized by Section 203 of the Stafford Act. As a result of amendments by the Disaster Relief and Recovery Act of 2018, the Pre-Disaster Mitigation program is being replaced with the new Building Resilient Infrastructure and Communities (BRIC) program.

2) It is strongly encouraged to use 'problem statements' in developing mitigation goals, objectives, actions, and/or strategies. Problem statements are succinct summaries of a community's vulnerabilities to a given hazard and may include the known or suggested causes or contributing factors to vulnerability. These plain language problem statements can then be used to organize and craft plan goals and subsequent objectives, actions, or strategies (for reference, see California Adaptation Planning Guide, 2020, CalOES).

3) For updates and to meet criteria C6.a, C6.b., and C6.c. consider how this HMP may be incorporated, integrated, or aligned with neighboring or overlapping jurisdiction plans, programs, and policies. Recognizing the limits of LA Metro's authorities, plan and strategy alignment is a crucial considerations for ensuring mitigation actions are synchronized and work in concert, vice working against one another.

Element D: Plan Update, Evaluation, and Implementation (*Plan Updates Only*)

N/A

B. Resources for Implementing and Updating Your Approved Plan

This resource section is organized into three categories:

1) Guidance and Resources
2) Training Topics and Courses
3) Funding Sources

Guidance and Resources

Local Mitigation Planning Handbook
https://www.fema.gov/media-library/assets/documents/31598

Beyond the Basics
http://mitigationguide.org/

Mitigation Ideas
https://www.fema.gov/media-library/assets/documents/30627

Plan Integration: Linking Local Planning Efforts
https://www.fema.gov/media-library/assets/documents/108893

Integrating Disaster Data into Hazard Mitigation Planning
https://www.fema.gov/media-library/assets/documents/103486

Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning
https://www.fema.gov/ar/media-library/assets/documents/4317

Community Rating System User Manual
https://www.fema.gov/media-library/assets/documents/8768

U.S. Climate Resilient Toolkit
https://toolkit.climate.gov/

2014 National Climate Assessment
http://nca2014.globalchange.gov/

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation
http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf

FY15 Hazard Mitigation Assistance Unified Guidance
https://www.fema.gov/media-library/assets/documents/103279

Climate Resilient Mitigation Activities for Hazard Mitigation Assistance
https://www.fema.gov/media-library/assets/documents/110202

Training

More information at https://training.fema.gov/emi.aspx or through your State Training Officer

Mitigation Planning

- IS-318 Mitigation Planning for Local and Tribal Communities
  https://training.fema.gov/is/courseoverview.aspx?code=is-318
- IS-393 Introduction to Hazard Mitigation
  https://training.fema.gov/is/courseoverview.aspx?code=is-393.a
- G-318 Preparing and Reviewing Local Plans
- G-393 Mitigation for Emergency Managers

Hazard Mitigation Assistance (HMA) Grant Programs

- IS-212.b Introduction to Unified HMA

http://www.training.fema.gov/is/courseoverview.aspx?code=IS-212.b

IS-277 Benefit Cost Analysis Entry Level

http://www.training.fema.gov/is/courseoverview.aspx?code=IS-277

E-212 HMA: Developing Quality Application Elements

E-213 HMA: Application Review and Evaluation

E-214 HMA: Project Implementation and Programmatic Closeout

E-276 Benefit-Cost Analysis Entry Level

GIS and Hazus-MH

IS-922 Application of GIS for Emergency Management

http://www.training.fema.gov/is/courseoverview.aspx?code=IS-922

E-190 ArcGIS for Emergency Managers

E-296 Application of Hazus-MH for Risk Assessment

E-313 Basic Hazus-MH

Floodplain Management

E-273 Managing Floodplain Development through the NFIP

E-278 National Flood Insurance Program/ Community Rating System

Potential Funding Sources

Hazard Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: https://www.fema.gov/hazard-mitigation-grant-program

Pre-Disaster Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: https://www.fema.gov/pre-disaster-mitigation-grant-program

Flood Mitigation Assistance Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: https://www.fema.gov/flood-mitigation-assistance-grant-program

Emergency Management Performance Grant Program

POC: FEMA Region IX

Website: https://www.fema.gov/emergency-management-performance-grant-program

SECTION 4:
HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX (OPTIONAL)

INSTRUCTIONS: This matrix can be used by the plan reviewer to help identify if all of the components of Element B have been met. List out natural hazard names that are identified in the plan in the column labeled "Hazards" and put a "Y" or "N" for each component of Element B.

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	**Requirement Met? (Y/N)**							
	Type	**Location**	**Extent**	**Previous Occurrences**	**Probability**	**Impacts**	**Vulnerability**	**Mitigation Actions**
Earthquake *San Andreas M7.8 – 2.95 (CPRI Rank)* *Newport Inglewood M7.2 – 2.80* *Sierra Madre M7.2 – 2.50*	Earthquake Hazards, 58 P.58, 67	Fault Zones: - San Andreas, 61; Sierra Madre, 63; Newport-Inglewood Fault, 65 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 -------- p.60-66	Fault Zones: - San Andreas, 61; Sierra Madre, 63; Newport-Inglewood Fault, 65 ----- p.58, 62, 66	Previous Occurrences of Earthquakes, 59 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 ----- p.59	Table. CPRI Ranking, 33 ---- p.32-33	Earthquake Related Hazards, 67 Impact of EQ, 70 ---- p.65, 67, 70, HAZUS analysis (p.253)	Table. Critical Facilities Vulnerable to Hazards, pg. 38 ------- p.63, 65, 67, HAZUS analysis (p.253)	BFPM: EQ-1 EM: EQ-2/3/4 MOW: EQ-1/2 PM: EQ-1 ----- p.187, 150, 197, 171-173, 194,
Flood *2.45 (CPRI Rank)*	Flood Hazards, 87	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Flood Hazards, 89 -- Map: Metro Critical Assets Impacted by Flooding, 91 --	Flood Hazards, 90 -- Map: Metro Critical Assets Impacted by Flooding, 91 -- Definitions of FEMA Flood Zone Designations, 95	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Previous Occurrences of Flooding, 88	Table. CPRI Ranking, 33 -- National Flood Insurance Program, 93 -- Map: Flood Hazard Zones, 94	Map: Flood Risk Map, 92 -- Impact of Flooding, 97	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Map: Metro Critical Assets Impacted by Flooding, 91 -- Map: Flood Risk Map, 92	BFPM: FLD-1 ESC: FLD-1/2/3/4 EM: FLD-1 General Services: FLD-1/2 MOW: FLD-1/2/3 ---------- p.151, 160-162, 174, 180, 187-188, 194, 198

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	**Requirement Met? (Y/N)**							
	Type	**Location**	**Extent**	**Previous Occurrences**	**Probability**	**Impacts**	**Vulnerability**	**Mitigation Actions**
		Map: Flood Risk Map, 92						
Hazard	**Type**	**Location**	**Extent**	**Previous Occurrences**	**Probability**	**Impacts**	**Vulnerability**	**Mitigation Actions**
Wildfire *2.60 (CPRI Rank)*	Wildfire Hazards, 71 Local Conditions, 74	Local Conditions, 74 -- Map: Fire Hazard Severity Zones, 76 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34	Map: Fire Hazard Severity Zones, 76 -- p.76-77	Previous Occurrences of Wildfire, 72 -- Table: County Destructive Fires Since 2000, 73 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34	Table. CPRI Ranking, 33	Table: County Destructive Fires Since 2000, 73 -- Local Conditions, 77 -- Impact of Wildfire, 79 ----- p.77-79	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Map: Metro Critical Assets Impacted by Wildfire, 77 -- Map: Current Wildfire Exposure(s), 78	WF: FF-1 General Services: MH-5 MPW: WF-1/2 ----- p.174, 188, 195, 217
Landslide *2.20 (CPRI Rank)*	Landslide Hazards, 80 -- Local Conditions, 83 ----- p.67, 80, 83	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Table: Landslides in LA County since 1928, 82 -- Local Conditions, 83 -- Map: Metro Critical Assets Impacted by Landslide, 85 ------ p.68, 85	Map: Metro Critical Assets Impacted by Landslide, 85 ----- ------ p.68, 85	Previous Occurrences of Landslides, 81 -- Table: Landslides in LA County since 1928, 82 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34 p.81-83	Table. CPRI Ranking, 33 -- Local Conditions, 83	Landslide Characteristics, 80 -- Table: Landslides in LA County since 1928, 82 -- Local Conditions, 83 -- Impacts of Landslides, 86	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Local Conditions, 83 -- Map: Metro Critical Assets Impacted by Landslide, 85	BFPM: LND-1/2 ESC: LND-1/2/3/4/5 MOW: LND1/2/3 ------ p.151, 152, 162-163, 189, 199
Windstorm *2.45 (CPRI Rank)*	Windstorm Hazards, 115 --	Table. Vulnerability, Location, Extent	Table: High Wind, Strong Wind and	Table. Vulnerability, Location, Extent	Table. CPRI Ranking, 33	What is Susceptible to Windstorms? 116	Table. Critical Facilities Vulnerable to Hazards, pg. 38	BFPM: WND-1 MOW: WND-1 p.152, 190

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	**Requirement Met? (Y/N)**							
	Type	**Location**	**Extent**	**Previous Occurrences**	**Probability**	**Impacts**	**Vulnerability**	**Mitigation Actions**
	Local Conditions, 120	and Probability for MSA, 34 -- Table: High Wind, Strong Wind and Tornado Events, 117 ----- p.115-116	Tornado Events, 117	and Probability for MSA, 34 -- Previous Occurrences of Windstorms, 117 -- Table: High Wind, Strong Wind and Tornado Events, 117		-- Table: High Wind, Strong Wind and Tornado Events, 117 ----- p.120-121	-- Local Conditions, 120 ---- p.116	
Tsunami *2.25 (CPRI Rank)*	Tsunami Hazards, 98-99 Local Conditions, 101	Table. Vulnerability, Location, Extent and Probability for MSA, 34 -- Map: Metro Critical Assets Impacted by Tsunami, 102 -- Map: Tsunami Inundation Maps, 104-114	Map: Metro Critical Assets Impacted by Tsunami, 102 -- Map: Tsunami Inundation Maps, 104-114	Previous Occurrences of Tsunamis, 100 -- Table. Vulnerability, Location, Extent and Probability for MSA, 34	Table. CPRI Ranking, pg. 33	Impact of Tsunamis, 103	Table. Critical Facilities Vulnerable to Hazards, pg. 38 -- Map: Metro Critical Assets Impacted by Tsunami, 101-102	MOW: TSU-1/2 ----- p.190
Climate Change *2.05 (CPRI Rank)* *Not Reviewed by Cal OES and FEMA*		Table. Vulnerability, Location, Extent and Probability for MSA, 34		Table. Vulnerability, Location, Extent and Probability for MSA, 34	Table. CPRI Ranking, pg. 33		Table. Critical Facilities Vulnerable to Hazards, pg. 38	
Epidemic/ Pandemic/ Vector-borne Diseases *2.05 (CPRI Rank)* *Not Reviewed by Cal OES and FEMA*		Table. Vulnerability, Location, Extent and Probability for MSA, 34		Table. Vulnerability, Location, Extent and Probability for MSA, 34	Table. CPRI Ranking, pg. 33		Table. Critical Facilities Vulnerable to Hazards, pg. 38	

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0504, **File Type:** Program **Agenda Number:** 15.

**PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022**

SUBJECT: TRANSIT ORIENTED COMMUNITIES ECONOMIC DEVELOPMENT PROGRAM AND INVESTMENT FUND

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING the Transit Oriented Communities Economic Development Program (EDP) and $5 million for the implementation of the Transit Oriented Communities Economic Development Investment Fund ("Fund") with disbursement contingent upon the Metro Board of Directors (Board) approval of the Fund Guidelines; and

B. AUTHORIZING the Chief Executive Officer or designee to enter into multiple agreements with financial institutions, the State of California, County of Los Angeles, cities, and other eligible entities to contribute to the Fund.

ISSUE

The EDP, including the Fund, was developed in response to direction from the Metro Board of Directors (Board) to support and prevent the displacement of small businesses near transit and in, or adjacent to, Equity Focused Communities (EFCs). The proposed program includes a two-year pilot for businesses within a ½-mile radius along the recently completed K-Line and the Little Tokyo community along the soon-to-be-completed Regional Connector (Attachment A - Pilot Corridor Maps). Board approval is required to implement the EDP and establish the Fund.

BACKGROUND

The Metro Board approved a $1 million investment in the Small Business Assistance Loan Program in August 2016. There was limited interest in the original assistance program due to some of the lending parameters. The program was in the process of being restructured when the COVID-19 global pandemic occurred. The Board took immediate steps to assist impacted businesses and partnered with the Los Angeles County Development Authority to create the COVID-19 Recovery Loan Program in May 2020, with a directive for staff to return to the Board with revised program guidelines for a longer-term small business assistance program (Attachment B - Board Motions).

Approximately $853,000 in Small Business Assistance Loan Program funding was reallocated for the Recovery Loan Program, with repayment proceeds reserved for future iterations of the Metro small business assistance program.

In 2021, staff began restructuring the small business assistance program, to ensure that the program met the needs of businesses in the community. Metro sponsored two (2) roundtable discussions with economic development stakeholders, including financial institutions, community development financial institutions (CDFIs), chambers of commerce, community-based organizations, local jurisdictions, and business source centers. Metro has continued outreach meetings and interviews with more than 100 financial institutions-including retail and commercial banks, credit unions, investment banks, and brokerage firms-and other economic development stakeholders, including business associations, business improvement districts, chambers of commerce, community development corporations, economic development corporations, small business development corporations, think tanks, and other public sector entities helping small businesses.

TOC staff reviewed and analyzed comments received from the roundtable discussions and stakeholder interviews and conferred with colleagues from the Offices of Management and Budget, Diversity and Economic Opportunity, Countywide Planning and Development, and the Office of the Chief of Staff regarding other Metro community serving economic development activities. Metro currently offers the Business Solution Center, Business Interruption Fund, and Eat Shop Play programs to support businesses during construction, but currently there is no Metro program to support businesses near transit post-construction.

DISCUSSION

To support Metro's infrastructure and transit investment and maintain community partnerships, Metro proposes the EDP, which includes 1) the Fund and 2) Station Area Activation. The EDP outlines a comprehensive strategy to support, sustain, and grow small businesses and eligible nonprofit organizations near transit consistent with Board directives and Metro's TOC Policy Goal to stabilize and enhance communities. The EDP, including the Fund, provides critical tools to prevent the displacement of small businesses and nonprofits near transit and in or adjacent to an EFC.

The goal of the EDP is to create a safe and pleasant environment to access transit and increase transit ridership by facilitating commercial revitalization, stimulating private investment, preserving and beautifying commercial corridors, and generating commerce with resulting sales tax benefits. The EDP and the Fund are consistent with the U.S. Department of Transportation Justice40 initiatives, and the responsibilities outlined in Metro's enabling statute in the California Public Utilities Code Section 130001 including:

> "(h) Transportation planning should recognize that transportation systems have significant effect on the physical and socioeconomic characteristics of the area served, and emphasis should be given to the protection and enhancement of the environment and restoration of blighted neighborhoods near community centers."

Need

Small businesses are an important component of the economy and a key driver of production, employment, and growth. They employ approximately half of the private workforce in the U.S. There are more than 250,000 local small businesses and nearly 1.1 million sole proprietors in Los Angeles County. These businesses account for 43 percent of the local workforce and make L.A. County the country's largest small business economy. Access to capital has been a longstanding challenge for small businesses particularly those in historically disadvantaged communities. According to the National Bureau of Economic Research, since the start of the pandemic, Black-, Latino(a)-, and Asian -owned businesses have had higher closure rates than White-owned businesses nationwide. JPMorgan Chase Institute reported that over the same period, Black, Indigenous and People of Color (BIPOC) owned firms have faced larger cash balance and revenue declines than non-Latino(a) and White-owned firms, with the impact of the crisis particularly severe among Black- and Asian-owned businesses.

The Los Angeles County Small Business Ecosystem Assessment indicates that there has been a historic unmet demand of $60 billion in capital for small businesses in L.A. County annually, with pronounced gaps of traditional and alternative lending in BIPOC neighborhoods. This unmet demand has been magnified through the COVID-19 crisis and exacerbated in BIPOC communities surrounding the K Line and Little Tokyo. The K Line opened on October 7, 2022, and the Regional Connector is scheduled to open in the coming months. Inflation is on the rise, and time is of the essence to create a program that positively integrates Metro's goal of transit expansion and the consideration of community impacts, including impacts to small businesses and nonprofits with social enterprises related to economic development.

Pilot Corridor(s)

Staff recommends launching the EDP and establishing the Fund as a two-year pilot program for businesses within a 1/2-mile radius of the K Line alignment and Little Tokyo segment of the Regional Connector (Attachment A) to maximize business preservation after construction of new rail lines. These culturally rich and vibrant communities are recognized as cultural destinations and points of interest that draw visitors. They are comprised of resilient family, women, BIPOC owned businesses and nonprofits that serve their surrounding communities. According to Civic Economics, approximately 68 percent of revenue generated by local businesses stays within the community through employment of community residents, compared to 43 percent of revenue generated by non-local businesses. The two-year pilot Fund will provide ample time to review and assess best practices, challenges, the transit experience, and ridership. It will also provide an opportunity to refine and enhance the program where challenges have been identified. The diversity of business types, sizes, and need along these corridors create an excellent opportunity to creatively address a plethora of financing challenges.

TOC Economic Development Program Components

In response to stakeholder feedback and research, the EDP includes two critical program elements: the Fund and Station Area Activation:

1. The **Fund** will be managed by a Program Administrator and provide financial resources and technical assistance to small businesses and eligible nonprofit organizations along the pilot

corridors. Metro is proposing a one-time $5 million investment and up to $816,000 in repayment proceeds anticipated from the COVID-19 Recovery Loan Program to establish the Fund. Metro's contribution will be leveraged with private investment and public partners to maximize the Fund's ability to assist small businesses and nonprofit organizations and transform transit-oriented communities. The Fund is intended to provide access to capital through the following products:

- *Fixed Asset Loans*
  - Real Estate Acquisition Loans ($25,000 to $5 million)
  - Commercial Façade and Tenant Improvement Loans ($25,000 to $250,000)
- *Short-Term and Long-Term Working Capital Loans* ($500 to $500,000)

Underwriting should: (1) be commensurate with the loan types and terms offered; (2) consider the nature of the markets where the loans are made; (3) consider the borrower's willingness and ability to repay; (4) establish a credit review process; (5) take adequate account of concentration risk; and (6) be appropriate for the institution's size, nature, and business activity.

Eligibility criteria, funding partners and their respective contributions, metric-based results, and underwriting guidelines ("Fund Guidelines") will be refined in consultation with the Program Administrator and presented to the Board prior to program launch and Metro's $5 million contribution.

Technical Assistance

Technical assistance is a vital component of the Fund. Business technical assistance efforts develop sustainable and financially stronger businesses. It helps small businesses compete. Lenders require substantial documentation reflecting the borrower's management capacity, business track record and most importantly, showing that the business can generate the income needed to repay the debt. While the existing Metro construction mitigation programs offer general technical assistance to businesses during construction, the technical assistance proposed here is specifically intended to assist businesses in accessing the resources of the proposed Fund going forward, such as application preparation, credit counseling, reporting requirements, etc.

Funding Partnerships

Staff is working with financial institutions, the State of California, County of Los Angeles, cities, and other eligible entities to contribute to the Fund. Metro's seed money establishes the Fund, but more resources are needed to implement the targeted two-year pilot program. A $5 million commitment will allow Metro to attract additional investment into the Fund and have a measurable impact along the identified corridors. Partnering with existing programs to build on Metro's commitment can considerably increase the participation of financial institutions and

private investment.

The American Rescue Plan Act of 2021 reauthorized and expanded the State Small Business Credit Initiative (SSBCI) Program, providing $10 billion to expand access to capital for small businesses emerging from the pandemic, build ecosystems of opportunity and entrepreneurship, and create high-quality jobs. California applied for funding and was awarded $1.81 billion to help small businesses over the next 10 years. The funds have been equally distributed between the California Pollution Control Financing Authority (CPCFA) in the Office of the Treasurer and the *IBANK* in the Governor's Office. The funds will be used for a Collateral Support Program and Loan Guarantee Program that will offer up front assistance to businesses with gaps in collateral during the underwriting process as well as a mechanism for private lenders to capture funds from defaulted loans.

Metro has been in active conversations with the State about the Fund, and its compatibility with State programs. Should the Board approve the EDP and authorize the establishment of the Fund, Metro will seek to formalize partnerships with the State, which will better position the Fund for private investment. Those agreements would be contingent on Board approval of the Fund Guidelines.

Program Administrator

CDFIs will be requested to respond to a Program Administrator Request for Proposal (RFP). As mission-driven lenders, CDFIs are focused on helping communities that are underserved by traditional financial institutions to become participants in the economic mainstream. They inject capital into these communities by financing small businesses, nonprofits, microenterprises, commercial real estate, community facilities, and affordable housing with low -interest loans from public and private sources. The CDFI Fund at the U.S. Department of the Treasury certifies CDFIs and mandates that at least 60 percent of CDFI financing goes into low- and moderate-income (LMI) populations and other underserved communities. Large financial institutions realize the benefits of CDFIs and partner with them to ensure compliance with the Community Reinvestment Act. The SSBCI also identifies CDFIs as lenders for their programs.

Should the Board approve the EDP and establishment of the Fund, staff anticipates issuing an RFP in mid-2023 to secure a Program Administrator. While staff will require one point of contact for the program administration, the scope of work will include significant technical assistance and expert knowledge of several programs. Therefore, applicants will be allowed to submit alone or with entities that can assist in meeting program requirements.

2. The **Station Area Activation** component of the EDP utilizes Metro real estate and plays a crucial role in small business sustainability and growth. Station Area Activation incorporates previous Board actions that stimulate economic activity, including the Small Scale Retail Pilot Program which will be initiated at the Willowbrook/Rosa Parks Station, restructuring of the Plaza Vending Program at the Westlake MacArthur Park Station, and facilitating activation at the Compton Station with consideration for additional sites. Additional opportunities may arise from ground floor commercial space in Metro Joint Development projects and resulting from

Metro's Housing Accelerator initiatives.

DETERMINATION OF SAFETY IMPACT

These recommendations have no adverse impacts on safety, but place, social, individual, and temporal characteristics impact perceived safety in rail-based station environments. Lighting, surveillance, other people's behaviors, time of day and one's gender are among the important characteristics impacting safety perceptions. Open environments and high visibility of and by others is important in several studies. The presence of activities such as cafes, kiosks, or shops to keep these areas busy creates visibility, and natural surveillance increases safety and transit ridership.

FINANCIAL IMPACT

The adopted FY 2023 budget includes $200,000 in Cost Center 2210, Project 610025 (TOC Small Business) to initiate program administration. The $5 million dollars requested to establish the pilot Fund represents a one-time investment used to secure additional financial resources, and to create a revolving lending program. Fund disbursement is contingent upon Board approval of the Fund Guidelines. Since this is a multi-year program, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years. Although it cannot be directly quantified at this time, helping small businesses thrive will result in additional sales tax dollars.

Impact to Budget

The funding for this program is General Funds. These funds are eligible for Metro bus and rail capital and operating expenditures.

EQUITY PLATFORM

The EDP's Fund has the potential to positively impact over 200 small, legacy and locally owned businesses, and nonprofit organizations with social enterprises that have 1 - 100 employees located within 1/2 mile of the K Line and the Little Tokyo segment of the Regional Connector, the surrounding community, and transit riders. Business ownership reflects several cultural backgrounds including, African American, Asian American, Latinx, and White. Women own 36 percent of the businesses, and only 30 percent of these businesses own the facility in which they operate.

The EDP will provide: 1) technical assistance and access to capital, 2) access to private equity financing to fund startups, early-stage, and emerging companies, and 3) a pipeline to sustainability and growth for small businesses and nonprofits with a social enterprise. A social enterprise is an organization or venture (within an organization) that advances a social mission through market-based strategies. These nonprofit organizations, entrepreneurs, and merchants with microbusinesses, such as those permitted to operate on Metro plazas as part of our station area activation activities will benefit from the EDP and the Fund.

The surrounding community and transit riders also benefit from the EDP with a safe and pleasant environment to access transit by facilitating commercial revitalization, stimulating private investment,

preserving and beautifying commercial corridors, and generating commerce. The EDP offers a comprehensive approach to help prevent displacement of small businesses and cultural displacement.

If the Fund is successful, the program may be expanded to other corridors throughout the county, and thus expand these opportunities to these communities and more as future transit corridors come online. Additionally, Metro's outreach will expand beyond the over 100 economic development stakeholders it has engaged to include local economic development organizations with expertise in these communities. The proposed actions mitigate lingering construction impacts and provide a strategy to address the challenges of small businesses in BIPOC communities facing rising inflation and rents while enhancing the ridership experience and areas surrounding Metro's stations.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

These recommendations support Vision 2028 Strategic Plan Goals 3 and 4. The EDP and the Fund are grounded in enhancing communities and lives through mobility and access to opportunity (Strategic Goal 3) by working with economic development stakeholders to leverage the public transportation system to create a safe and pleasant environment to access transit and increase transit ridership by facilitating commercial revitalization, stimulating private investment, and supporting the preservation and growth of small businesses near transit. Additionally, the need for transforming LA County through regional collaboration and national leadership (Strategic Goal 4) is greater than ever with the anticipation of the World Cup and Olympics. Metro is well-positioned to partner with LA County jurisdictions to create a national model for supporting small businesses in underrepresented communities by leveraging transportation assets to spur revitalization, enhance the ridership experience, and address safety concerns.

ALTERNATIVES CONSIDERED

The Board could choose to not approve the EDP and the establishment of the Fund. Staff does not recommend this. Gentrification and displacement are contrary to Metro's Equity Platform and Strategic Goals. With rising inflation, increasing rents, and the lack of access to capital, the consequences of non-action include the potential displacement of small, BIPOC, legacy businesses renting along the proposed corridors, and disinvestment in the communities surrounding Metro's multibillion-dollar transit investment.

NEXT STEPS

Should the Board approve these recommendations, staff will develop the RFP for a Program Administrator and finalize agreements with financial institutions, the State of California, County of Los Angeles, cities, and other eligible entities in early 2023. It is anticipated that the RFP will be issued in mid-2023 concluding with the launch of the Fund at the end of the year. Staff will return to the Board with the selected Program Administrator, and Fund Guidelines. Board approval of the Fund Guidelines will be required prior to launching the Fund and depositing Metro's Fund contribution.

ATTACHMENTS

Attachment A - Pilot Corridor Maps
Attachment B - Metro Board Motions
- September 2015 Board Motion (File Number 2015-1479)
- April 2020 Board Motion (File Number 2020-0307)
- January 2021 Board Motion (File Number 2020-0910)

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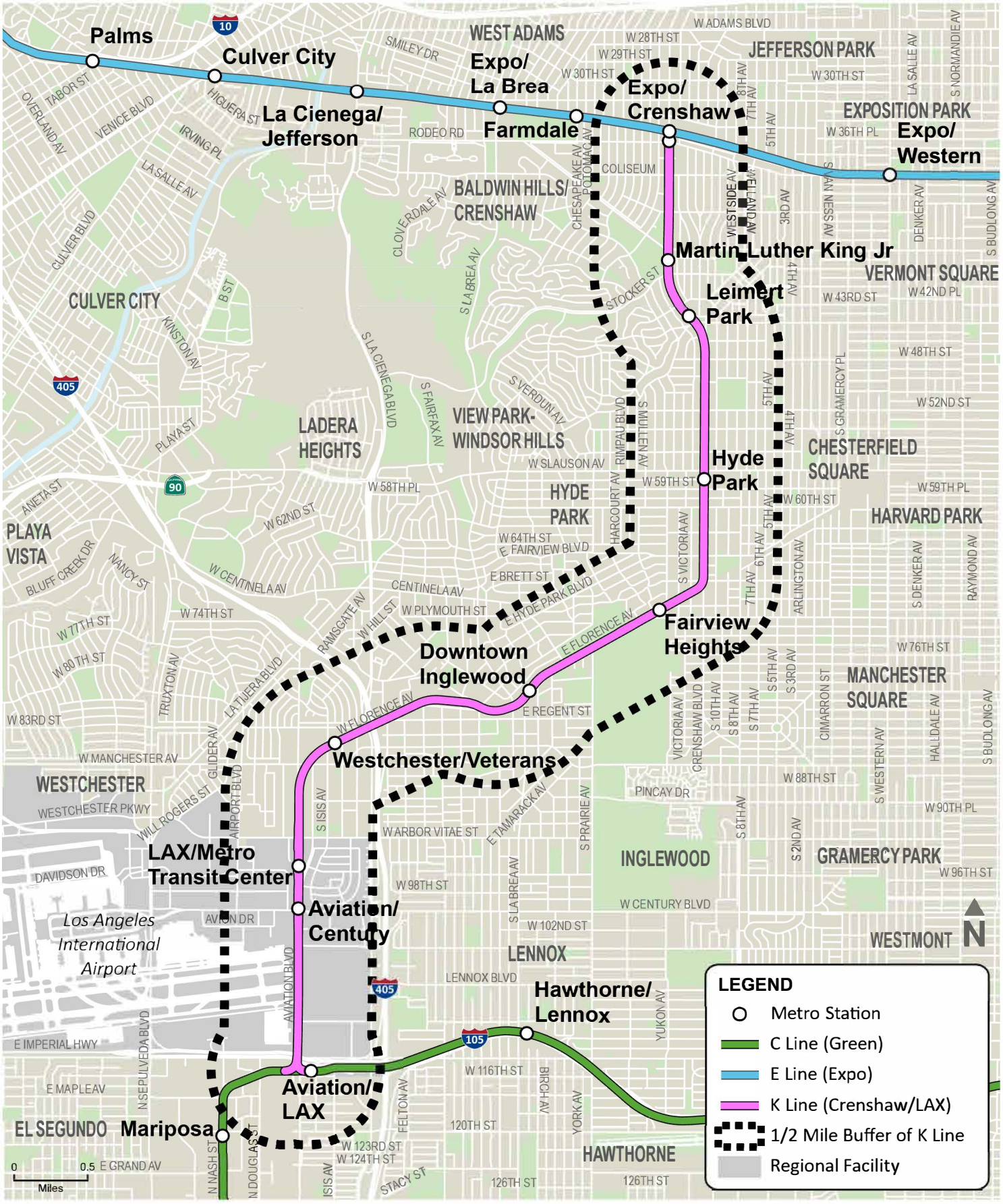
Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A

K Line (Crenshaw/LAX)



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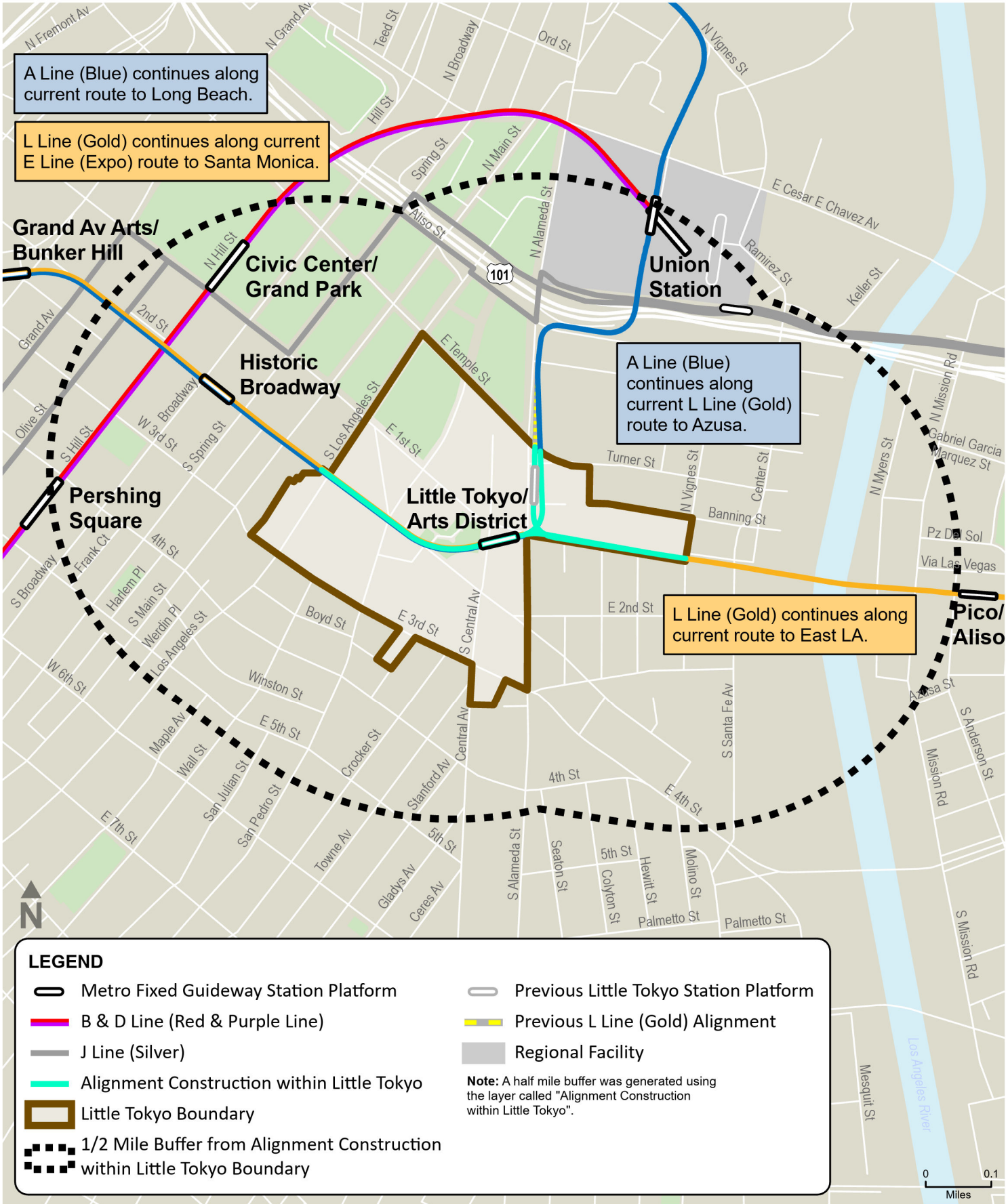
Map Produced By Countywide Planning and Development, LACMTA, November 2022
Thomas Bros. Data Used With Permission

Metro

ATTACHMENT A

Little Tokyo Station



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Map Produced By Countywide Planning and Development, LACMTA, October 2022
Little Tokyo Boundary digitized from City of Los Angeles Planning Dept., Community Design Overlay Report.
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Metro

Board Report

File #: 2015-1479, **File Type:** Motion / Motion Response **Agenda Number:** 58.

REGULAR BOARD MEETING
SEPTEMBER 27, 2015

Motion by:

Ridley-Thomas, Garcetti, Dupont-Walker and Kuehl

September 27, 2015

Relating to Item 58, File ID 2015-1088;
IMPLEMENTATION OF AFFORDABLE HOUSING AND BUSINESS LOAN FUNDS

In March 2015, the Metropolitan Transportation Authority (Metro) Board of Directors (Board) directed the Chief Executive Officer to negotiate the terms and conditions for Metro's participation in a multi-partner Countywide Transit-Oriented Affordable Housing and Business Loan Fund (Proposed Fund). The purpose of the Proposed Fund was to promote development and preservation of affordable housing and small businesses within a half-mile of Metro rail stations, bus rapid transit or rapid bus stops.

Staff has engaged members of the community development and finance communities in exploring potential formats for the Proposed Fund with an emphasis on transit oriented communities. While the residential and commercial purposes of the Proposed Fund are synergistic, their administration, approach and objectives are materially different, therefore necessitating two separate funding frameworks.

With regard to the Affordable Housing Loan Fund, staff has identified a consortium led by the California Community Foundation and Low Income Investment Fund that has the local experience, depth of potential investor interest and deep experience in creating and implementing housing investment funds to meet the Board's objectives for this investment. The consortium has committed to securing over $60 million to match Metro's $10 million commitment in order to meaningfully capitalize the loan fund.

With regard to the Business Loan Fund, staff has reached out to a number of impacted stakeholders, and has indicators that a potential comprehensive package of loan products requires additional consideration. However, staff has identified an immediate and critical gap in available funding for commercial tenant improvements both as a component of mixed-use affordable housing projects and in small, free standing commercial properties in close proximity to transit facilities, but the challenge extends to community-based retail tenants within one and one-half mile of transit corridors. With

regard to ground floor retail in mixed-use affordable housing projects, a study by the City of Los Angeles indicated that nearly 20% of the City of LA's funded affordable housing projects have vacancies, with most of these vacancies concentrated in underserved neighborhoods. In addition, Metro affordable housing joint developments have chronic vacancies at Hollywood and Western, Westlake MacArthur Park, 1st and Boyle, and Del Mar Stations. Providing grants to support the establishment of local, small businesses within projects such as these can support local economic development initiatives and promote job creation while lowering the risks of displacement and contributing to the revitalization of transit-oriented communities.

MOTION by Ridley-Thomas, Garcetti, Dupont-Walker and Kuehl directing the Chief Executive Officer to move forward with implementation of Affordable Housing and Business Loan Funds as follows:

A. Engage the consortium led by California Community Foundation and Low Income Investment Fund to negotiate terms and conditions, in a multi-partner Countywide Transit-Oriented Affordable Housing Loan Fund to support the production and preservation of transit-oriented affordable housing (including mixed use projects)that leverages Metro's financial contribution, as previously approved by the Boardin March 2015, and return to the Board for approval of the final terms and conditions;

B. Design a pilot Countywide Transit-Oriented Small Business Loan Fund program to provide financing under favorable terms for commercial tenant improvements within transit adjacent, mixed use (including affordable housing) or commercial projects with particular emphasis on tenant improvements for local small businesses, with priority for ones that have been operating in the community for at least 5 years. Should Metro be unable to administer the loan fund internally, the agency should contract with an external administrator with relevant expertise (e.g. community development financial institutions, banks, the Community Development Commission, or small business centers);

C. Continue research and engagement with community development financial institutions, municipalities, private sector banks, regional economic development corporations, and other interested parties on the potential expansion of the Countywide Transit-Oriented Small Business Loan Fund program to include a variety of financial products and report back within 120 days;

D. For purposes of furthering the above described objectives, amend the budget to initially allocate $500,000 of the previously-committed funding for the Affordable Housing and Business Loan Fund to the pilot Countywide Transit-Oriented Small Business Loan Fund, to be dispersed over the next two fiscal years, and be administered by the Office of Management and Budget and the Diversity & Economic Opportunity Department, in coordination with the Office of Countywide Planning and Development; and

E. Provide a quarterly written update to the Board on the status, implementation and impacts of both Loan Fund programs.

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Los Angeles County
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One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2020-0307, **File Type:** Motion / Motion Response **Agenda Number:** 43.

REGULAR BOARD MEETING
APRIL 23, 2020

Motion by:

DIRECTORS RIDLEY-THOMAS, KUEHL, BUTTS, GARCETTI, and DUPONT-WALKER

Assistance to Transit-Oriented Businesses in Response to COVID-19

On August 25, 2016, Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors approved the Transit-Oriented Communities (TOC) Small Business Program, allocating $1,000,000 in loan funding for tenant improvements to ground floor retail spaces in affordable housing projects near High Quality Transit Nodes.

The purpose of the TOC Small Business Program was to provide low-interest, flexible loans to support small businesses that are located close to public transit. The TOC Small Business Program funding has been allocated to the Los Angeles County Development Authority (LACDA), to administer the program on behalf of Metro. However, to date, there has been limited interest in the fund, with $853,000 still available.

In response to the COVID-19 pandemic and resulting economic impacts locally, the LACDA has established a Business Recovery Loan Program (Loan Program) to provide immediate relief to small businesses. This Loan Program, initially funded with $3,000,000 from the Economic Development Administration, was created to provide flexible borrowing options for Los Angeles County business owners to enable them to remain viable until the economy reopens. There is significant demand for the Loan Program, with over 800 businesses expressing interest in securing a loan within 24 hours of the launch of the Program.

Repurposing the TOC Small Business Program into a TOC Business Recovery Loan Program could provide a critical and timely tool to sustain small businesses located close to transit, which are struggling to survive the COVID-19 economic crisis. The repurposing of these funds also advances Metro's continued partnership with other governmental entities and community-based organizations to support LA County residents and business owners facing hardships due to the COVID-19 pandemic.

File #: 2020-0307, **File Type:** Motion / Motion Response **Agenda Number:** 43.

SUBJECT: ASSISTANCE TO TRANSIT-ORIENTED BUSINESSES IN RESPONSE TO COVID-19

RECOMMENDATION

APPROVE Motion by Directors Ridley-Thomas, Kuehl, Butts, Garcetti, and Dupont-Walker:

Directing the Chief Executive Officer to negotiate and execute amendments to the agreement with the Los Angeles County Development Authority (LACDA) to reallocate up to $853,000 of the TOC Small Business Program funds to implement a TOC COVID-19 Business Recovery Loan Program with the following components:

1. Restrict the funds to businesses within Los Angeles County that are within 1/4 mile of a Major Transit Stop as defined by California Public Resources Code Section 21064.3, which may be amended from time to time;

2. Require the loans funded with Metro funds be subject to the following requirements:

    a. Each below-market interest loan will not exceed $20,000 and will cover operating expenses for a qualifying small business with up to 25 full time employees;

    b. Each loan will have a 5-year term with repayment of principal and interest deferred for the first 12 months;

    c. There will be no loan origination fee and no collateral required; and

    d. Each recipient must have been in continuous operation for not less than 24 months prior to the COVID-19 crisis and have demonstrated a negative financial impact due to the COVID-19 crisis.

3. Limit LACDA's administrative costs to no more than $37,000; and

4. Metro staff will provide an update to the Board of Directors in writing within 6 months of Board Approval regarding the impact of the TOC COVID-19 Business Recovery Loan Program.

ATTACHMENT B

AMENDMENT

Board Meeting

April 22, 2020

Item 43: Assistance to Transit-Oriented Businesses in Response to COVID-19

WE FURTHER MOVE that the Board direct the CEO to:

1. Ensure that any Metro funding added to the LA County Business Recovery Loan Program will be repaid back to Metro and retained for the Transit Oriented Communities Small Business Program;

2. Work with LACDA to ensure geographic distribution of Metro funds across subregions; and

3. Report back to the Planning & Programming Committee in 120 days with recommendations for improvements to the Transit Oriented Communities Small Business Program, including but not limited to guideline revisions to make funding easier for small businesses to access.

###

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2020-0910, **File Type:** Motion / Motion Response **Agenda Number:** 49.

REVISED
EXECUTIVE MANAGEMENT COMMITTEE
JANUARY 21, 2021

Motion by:

DIRECTORS GARCETTI, KUEHL, SOLIS, AND KREKORIAN

Metro Small-Scale Retail

Services and retail offered at transportation hubs support a robust and attractive system. Retail activity as part of the transportation experience can increase safety, support communities, and directly create economic opportunities. Metro staff presented the Concessions Study Report to the Board in 2014 which found that Metro could realize more than $800,000 per year in net revenue with a system-wide concession program. With the ongoing financial crisis from COVID-19, Metro needs to evaluate all options for increasing revenue.

Since 2014, Metro's portfolio of projects has expanded, including Active Transportation and Bus Rapid Transit Corridors. These types of projects have more interfaces with local rights-of-way than traditional bus stops or rail stations, resulting in more complex relationships between Metro and local jurisdictions. Metro's potential opportunities for concessions may be broader now than several years ago and could include equity-informed community partnerships or business cases started through Unsolicited Proposals.

SUBJECT: METRO SMALL-SCALE RETAIL

RECOMMENDATION

APPROVE Motion by Directors Garcetti, Kuehl, Solis, and Krekorian as amended that the Board direct the CEO to:

A. Revisit the findings of the Jones Lang LaSalle Concessions Program Concept for Metro Owned Facilities report dated June 28, 2013 and develop an assessment of needs to establish a small-scale retail program that supports small and disadvantaged businesses, and microentrepreneurs, including context-sensitive community partnerships, in Metro's current portfolio of projects.

Amendment by Dupont-Walker: Include opportunities to complement and partner with the Transit-Oriented Communities Small Business Program, which is currently being updated by Countywide Planning.

B. Form a working group to determine opportunities and next steps for advancing this work.

C. Report back to EMC with an update in 90 days.

Transit Oriented Communities Economic Development Program and Investment Fund

Planning and Programming Committee

November 16, 2022

Item: 2022-0504

Recommendations

APPROVE the Transit Oriented Communities Economic Development Program (EDP) and $5 million for the implementation of the Transit Oriented Communities Economic Development Investment Fund (Fund) with disbursement contingent upon the Metro Board of Directors (Board) approval of the Fund Guidelines; and

AUTHORIZE the Chief Executive Officer or designee to enter into multiple agreements with financial institutions, the State of California, County of Los Angeles, cities, and other eligible entities to contribute to the Fund.

Background

Board Directives

- **2015/2016** – Establishment of Small Business Assistance Loan Program
- **2020** – COVID-19 Recovery Loan Program
- **2021** – Small Scale Retail Motion

Process

- Convened two Roundtable discussions with small business stakeholders
- Conducted outreach to more than 100 financial institutions (private banks, CDFIs), business associations, BIDs/Chambers, Community Development Corporations (CDCs), foundations, think tanks, public sector entities

GOALS

- **Build** upon prior Metro programs (BSC/BIF, ESP)
- **Prevent** displacement
- **Promote** commercial stabilization
- **Provide** access to capital

Program Overview and Investment Fund

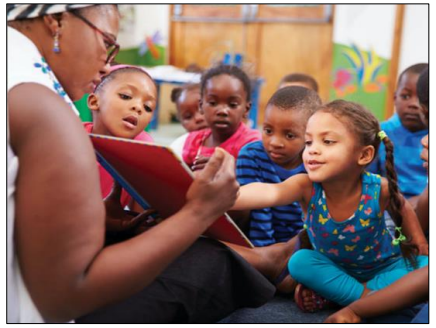
TOC Economic Development Program (EDP)

1) The Fund
   - Program Administrator
   - Access to Capital
   - Technical Assistance

2) Station Area Activation
   - Metro Real Estate
   - Small Scale Retail
   - Plaza Vending Program
   - Joint Development and Housing Accelerator Initiatives

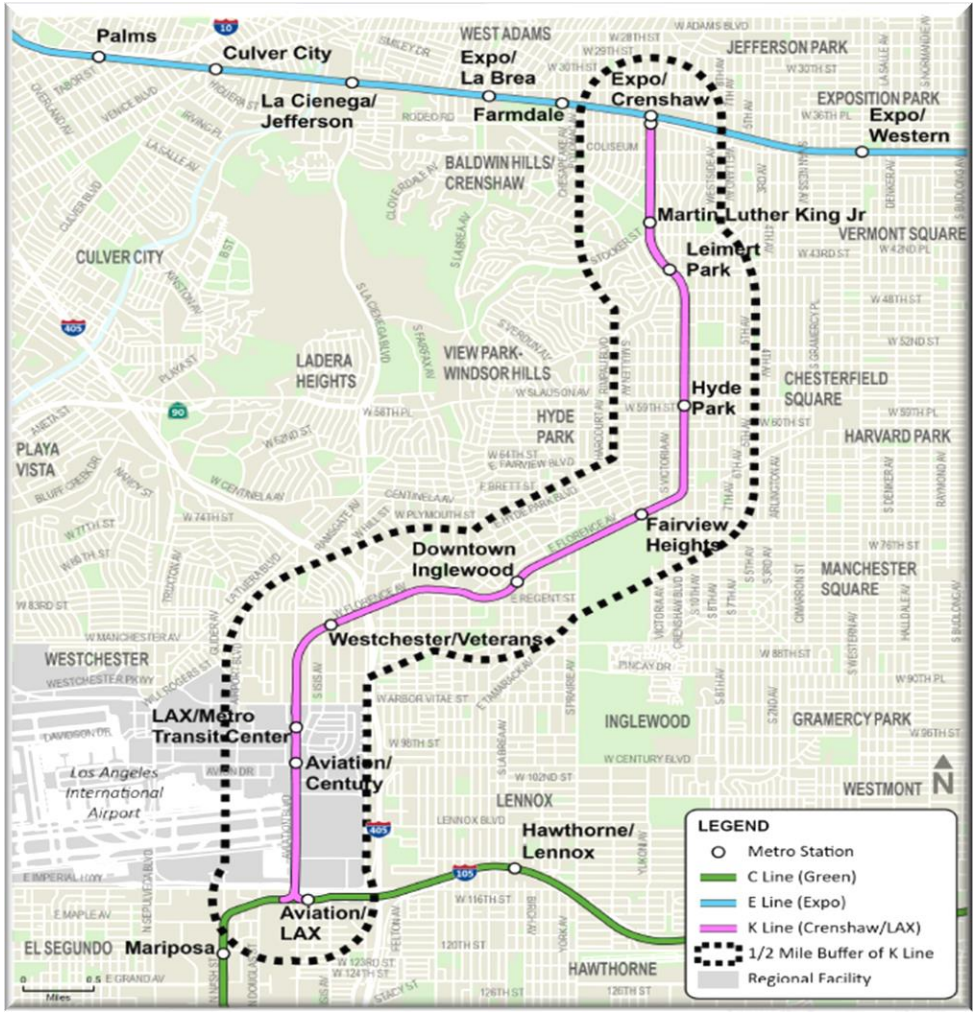
The Fund

- Fixed Asset Loans
  - Real Estate Acquisition ($250k - $5M)
  - Commercial Façade & Tenant Improvements ($25k - $250k)
- Short- and Long-Term Working Capital Loans ($500 - $500k)
- Technical Assistance

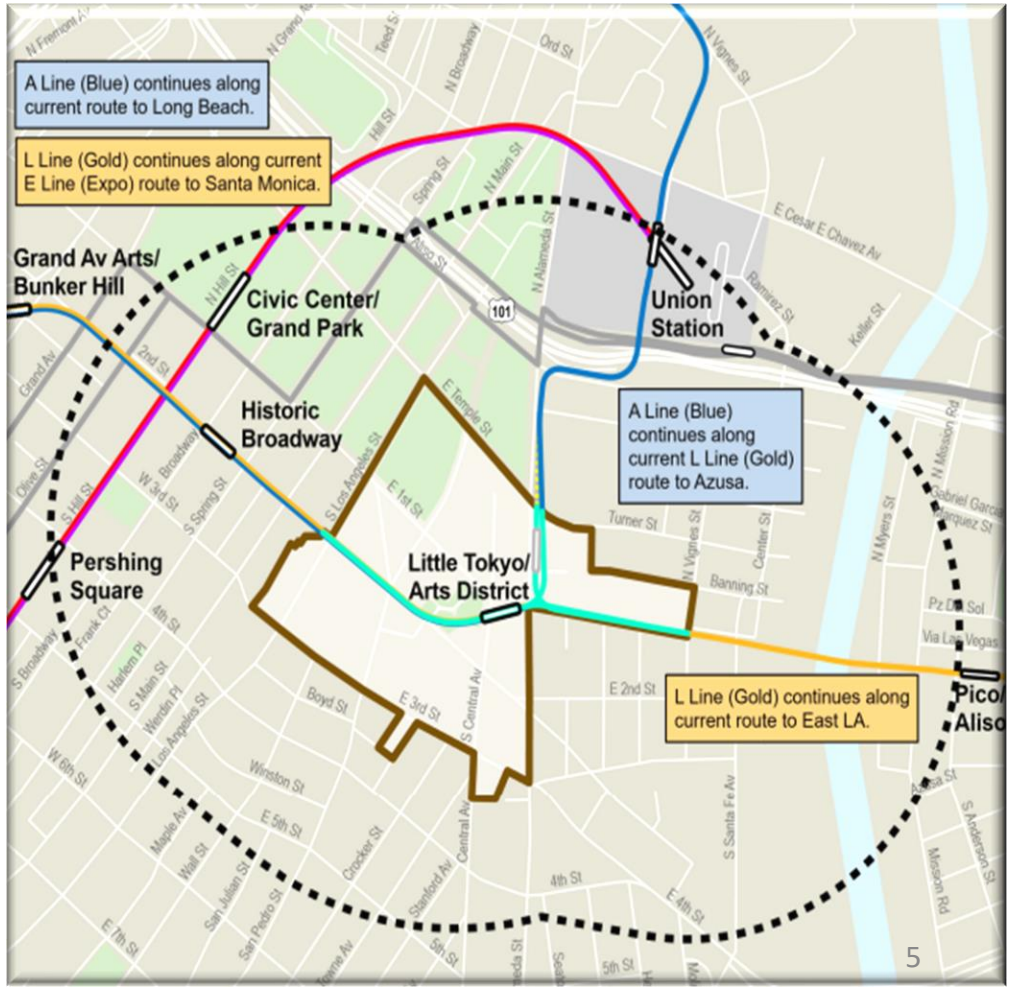


Pilot Locations

K Line (Crenshaw/Inglewood/LAX)



Regional Connector (Little Tokyo Segment)



Next Steps

- **Late 2022 Early 2023** – Leverage Metro $5 million commitment to secure additional investment in the Fund

  Goals for Funding Partnerships:

  - Mitigate challenges to accessing capital
  - Address perceived risks for lending in equity Focused Communities
  - Enter into partnership agreements

- **Early 2023** - Develop the Program Administrator RFP and finalize partnership agreements
- **Mid 2023** - Issue the Program Administrator RFP
- **Late 2023** - Launch of the Fund

*Staff will return to the Board with the selected Program Administrator, program guidelines with metric-based performance indicators, and an update of contributions to the Fund.

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0578, **File Type:** Project **Agenda Number:** 16.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: NORTH SAN FERNANDO VALLEY TRANSIT CORRIDOR

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING:

1. The North San Fernando Valley (NSFV) Transit Corridor environmental study findings per Senate Bill 288 Statutory Exemption requirements; and

2. The outreach summary report for community meetings and stakeholder briefings conducted throughout spring to fall 2022;

B. APPROVING the Proposed Measure M NSFV Bus Rapid Transit (BRT) Network Improvements Project for implementation;

C. APPROVING the finding that the Proposed Project is statutorily exempt from CEQA under Sections 21080.19 and 21080.25(b); and

D. AUTHORIZING the Chief Executive Officer to file a CEQA Notice of Exemption (NOE) for the Project with the Los Angeles County Clerk.

ISSUE

The Measure M Expenditure Plan has the NSFV BRT Improvements Project scheduled to begin operations between FY2023 and 2025. To meet the Measure M schedule for implementation, a Proposed Project for the corridor needs to be identified and environmentally cleared.

BACKGROUND

The North San Fernando Valley (NSFV) BRT Improvements Project is a Measure M project with an allocation of $180 million in Measure M funds. The goal of the project, as stated in the Measure M

ordinance, is to increase east-west connectivity throughout the North San Fernando Valley and the Metro Transit System.

Metro originally planned this project as a new single line Bus Rapid Transit (BRT) system extending from North Hollywood to Chatsworth. The Metro Board approved to initiate a technical study preceding environmental review for this project in March 2017. This technical study, the NSFV BRT Improvements Environmental Framework Report, was completed in September 2017, which established a study area and preliminary BRT concepts for further study.

In May 2018, an Alternatives Analysis (AA) was conducted as part of the Planning and Environmental Study for the North SFV BRT Corridor. Work on the AA included identifying initial BRT concepts, conducting stakeholder briefings and public participation meetings to solicit input, and further developing the alignment options for the project. The AA was completed and received by Planning & Programming Committee in June 2019. It identified a recommended project with design variations for environmental review. The item was forwarded by the Committee to a future Board meeting for consideration and directed staff to conduct additional public outreach in summer 2019.

In October 2019, the Metro Board received the Alternatives Analysis (AA) Study Report (Legistar File #: 2019-0525) and approved additional consideration of the Proposed Project. The Board directed staff to include further evaluation of the Roscoe Blvd alternative as part of the environmental review phase. The Board also noted that additional route options using Roscoe Blvd could also be considered on condition that they provided a connection to California State University, Northridge (CSUN). Additionally, the Board directed staff to coordinate with the agency's NextGen Bus Study on the core goals of enhancing existing bus service, increasing system connectivity in the SFV, and meeting the growing demand for transit in underserved communities.

Since that time, Metro staff has advanced the analysis and screening of the proposed NSFV BRT routes, and ongoing coordination with the NextGen Bus Plan led to the identification of a new project alternative focused on applying BRT network improvements to existing transit lines in the SFV to meet the Measure M goal.

DISCUSSION

Since October 2019, staff has conducted further evaluation of the Proposed Project, including refinements as the project moved towards a different level of environmental review with the new Senate Bill 288 (SB 288), signed into law in September 2020.
In October 2020, the Board approved the NextGen Bus Plan, which included new service plans in SFV. The NextGen Bus Plan was implemented by the end of 2021. Coordination of the Proposed Project with the NextGen Bus Plan led to the concept of incorporating key BRT features to the NextGen Bus Plan key transit lines in the SFV rather than creating a single new BRT project. This project approach is referred to as the NSFV BRT Network Improvements project and is outlined in more detail below.

Project Description

The North San Fernando Valley Transit Corridor Project, as designed in the NSFV BRT Network Improvements Project (Attachment A), is a proposed enhanced bus network that would increase connectivity and provide high-quality bus service and transit infrastructure in North San Fernando Valley communities from Northridge in the northwestern SFV to North Hollywood. The primary corridors to be improved through the BRT Network Improvements include Roscoe Boulevard, Nordhoff Street, and Lankershim Boulevard, with additional improvements planned for Reseda Boulevard, Sherman Way, Vanowen Street and Victory Boulevard.
The BRT Network Improvements is the result of input from extensive community and stakeholder outreach and Metro Board direction following prior studies and completion of an Alternatives Analysis for a single-line BRT project.
The BRT Network Improvements include the following project elements based on key BRT attributes to be funded through Measure M:

BRT Style Service and amenity improvements:

- Improved service frequency daytime weekdays every 10 minutes for the Roscoe Boulevard Line 152 and Nordhoff Street Line 166 (funded through Metro Annual Operating Budget by rearranging service levels on various SFV lines, not Measure M funded)
- New bus shelters at nearly 400 locations throughout the SFV
- Significant bus stop amenities, including larger shelters, more seating, new real time and wayfinding information, and better lighting at five connection points
- New zero emission electric buses for Lines 152 (Roscoe Bl), 162 (Sherman Way), 166 (Nordhoff St) and 240 (Ventura Bl/Reseda Bl)

BRT Style Bus Speed and Reliability Improvements:

- New peak hour only (7-10am, 3-7pm) bus lanes on 11 miles of Roscoe Boulevard between the SR-170 freeway and Topanga Canyon Boulevard
- Transit Signal Priority added for up to seven SFV bus lines (Lines 152 (Roscoe Bl), 162 (Sherman Way), 164 (Victory Bl), 165 (Vanowen St), 166 (Nordhoff St), 224 (Lankershim Bl/San Fernando Rd), and 240 (Ventura Bl/Reseda Bl)
- New bus stop design (bus bulbs) to avoid delays for buses merging in and out of traffic proposed at over 80 stops
- All-door boarding on all bus lines in the San Fernando Valley

The design elements, including the proposed bus lanes and bus bulbs are not expected to cause adverse traffic changes. Traffic analysis was conducted along Roscoe Boulevard where peak-hour bus lanes are being proposed. The analysis showed minimal increases in automobile travel time. Locations where bus bulbs are proposed should see little to no change in traffic operations.

Based on technical analysis and prior community feedback, the BRT Network Improvements is recommended for implementation. The project elements are based on a quick-build approach that can be rolled out quickly within the Measure M budget for the project, with minimal construction impacts. This approach is capable of delivering as much new ridership to the Metro transit network as

a single new BRT line but spreads the benefits much more widely.

Environmental Analysis and Findings

SB 288 provides a new California Environmental Quality Act (CEQA) statutory exemption (SE) for transit prioritization projects which may include transit signal priority, conversion of general-purpose lanes to peak-hour bus-only lanes, and bus stop enhancements on existing public rights-of-way (ROW).

Metro has identified that the proposed project qualifies for exemption under SB 288. Since the BRT Network Improvements project is valued at over $100 million, preparation of a business case and racial equity analysis and conducting public outreach meetings are required to file for an SE under SB 288.

A project business case was completed to provide the rationale for why the BRT Network Improvements is the best option for investment in the San Fernando Valley as compared to the single BRT line. The business case evaluated the project through four cases to understand the project benefits, feasibility, and costs and impacts of the investment. Specifically, the strategic case demonstrated how the project aligns with Metro's long-range goals. The economic case assessed the project's benefits and costs to individuals and society as a whole. The financial case analyzed the impacts of the investment including the project's capital and resource requirements. The delivery and operations case provided evidence on the feasibility and constructability of the project. The results of the analysis determined that the BRT Network Improvements would achieve more of Metro's strategic goals and maximize Measure M funds by providing improvements to multiple corridors throughout the NSFV and reaching a larger demographic in a shorter timeframe. Therefore, the BRT Network Improvements was determined to be the best option for future investment under all four cases.

A racial equity analysis was completed for the project which analyzed the racial equity impacts of the project and identified communities who would benefit and be burdened by the project. The analysis identified that the project would be implemented in areas that include large populations that identify as Hispanic/Latino, Asian, and Black or African American. Communities of color and low-income communities are also the majority of transit riders, and transit-dependent riders, in the NSFV service area. Metro has identified the NSFV area as an Equity-Focus Community (EFC), based on the recently updated EFC designations. Therefore, these communities will benefit from and be affected by implementation of the project.

Overall, the project is intended to:

- Address equity gaps to communities dependent on transit for day-to-day life
- Provide reliable high-quality bus services; and
- Provide improved connections to the NSFV service area

The project business case and racial equity analyses reports can be found on the Metro website at: North San Fernando Valley Transit Corridor - LA Metro <https://www.metro.net/projects/north-sfv-brt/>

CEQA Determination

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et sec.) (Senate Bill [SB] 288 Exemption - added January 1, 2021) establishes statutory exemptions (SE) from its provisions for certain types of projects. Projects that qualify for a statutory exemption are not subject to the requirement to prepare a CEQA document or other project-specific environmental analysis.

The project improvements fall within the exemptions described in Section 21080.25(b) as noted (Attachment B):

- New peak-period bus lanes in segments of Roscoe Boulevard where parking is already restricted-built within the existing public ROW (Section 21080.25(b)(5)).
- An increase in weekday daytime service headway from 15 to 10 minutes for the Roscoe Boulevard and Nordhoff Street corridors-bus lines 152 and 166, respectively (Section 21080.25(b)(5)).
- The installation of transit signal priority on seven NSFV corridors (Section 21080.25(b)(3)).
- The implementation of all-door boarding across the NSFV (Section 21080.25(b)(5)).
- The addition of bus bulbs at key high-usage bus stops - proposed at over 80 locations across the NSFV on corridors such as Lankershim Boulevard, Nordhoff Street, and Reseda Boulevard where bus lanes are not being considered-to reduce bus stop delay and increase space available for bus stop amenities (Section 21080.25(b)(5)).
- The addition of a bus shelter at approximately 400 high-ridership stops on multiple corridors (Section 21080.25(b)(5)).
- The enhancement of bus stops at five key transfer locations in the NSFV, with features such as higher-capacity shelters and static and real-time information signs. Proposed locations are CSUN Transit Center, Reseda/Roscoe, Nordhoff/Lindley, Roscoe/Van Nuys, and Nordhoff/Van Nuys (Section 21080.25(b)(2) and (5)).
- The accelerated implementation of new electric buses on multiple NSFV corridors through the funding of new buses and charging infrastructure (Section 21080.25(b)(5) and (6)).

Given the above, the proposed project meets the definition of a statutorily exempt project and is consistent with the intent of SB288 to accelerate sustainable transportation projects by providing an exemption from CEQA for a targeted set of sustainable transit projects, “active transportation” (walking and biking) projects and projects that expand sustainable mobility.

While the proposed project qualifies for an SE, it does not exempt the project from complying with other laws, such as the California Endangered Species Act. Metro is committed to introducing “Good Neighbor” measures to reduce the impacts of construction, but these measures would not be related to CEQA.

Consistency with Measure M

The BRT Network Improvements will increase system connectivity in the North San Fernando Valley and the Metro Transit System, consistent with the Measure M Ordinance. In addition, the Measure M ordinance identifies this transit capital project as “North San Fernando Valley BRT Improvements”

with a groundbreaking date of FY2019 and an opening date of FY2023-25. The Ordinance does not specify a route for BRT improvements in the North SFV; rather, it includes a footnote ("s") which state that, "This project will increase system connectivity in the North San Fernando Valley and the Metro Transit System." The Proposed Project applies BRT attributes such as dedicated bus lanes, transit signal priority, bus bulbs, and all door boarding to existing transit lines to provide a faster, more frequent, and more reliable transit network for the NSFV. The project also addresses customer experience attributes through the purchase of 75 new battery electric buses and approximately 400 new bus shelters plus additional passenger amenities at five key transfer locations. These benefits are larger and more widely spread than those of a single new BRT line.

Stakeholder and Community Outreach

In Summer and Fall 2022, stakeholder and community engagement activities were conducted to gather feedback on the new BRT Network Improvements (Attachment C). Briefings were conducted with elected officials/staff and key stakeholders to provide an overview of the project and the new option, as well as answer questions and gather feedback. Stakeholder roundtable meetings and presentations were conducted with neighborhood councils, community-based organizations, businesses and business groups, and CSUN groups and organizations. Door-to-door outreach to businesses took place along Roscoe, Lankershim, and Reseda to further inform business owners and employees in the project area about the updated project and gather feedback on the BRT Network Improvements. Information on the project and community meetings was distributed via e-blasts, door-to-door flyer distributions, car cards on Metro buses, a post on The Source, and through Metro's social media accounts (Facebook and Twitter). Two separate mailings were conducted in multiple languages (English, Spanish, and Armenian) to residential and commercial properties (including both owners and tenants) within equity-focused communities in the project area. A dial-in hotline was also provided to ensure those with limited internet availability can be involved. Outreach materials such as the online StoryMap and flyers were also available in all three languages. A total of 96,000 flyers were distributed along the project corridors leading up to the community meetings.

Outreach to existing transit riders was conducted via transit rider intercept interviews at key bus stops with high ridership along Roscoe, Nordhoff, Reseda, and the North Hollywood B Line (Red)/G Line (Orange) station. A questionnaire was also distributed to transit riders within the project area via the Transit App. The questionnaire, available from June 1, 2022 to June 14, 2022, targeted the geographic area within the North Valley and was sent to approximately 12,011 unique devices. A total of 506 completed questionnaires were received (391 in English and 115 in Spanish).

Three community meetings were held (one virtually and two in-person) to provide an update on the project and introduce the BRT Network Improvements to the broader public. The first community meeting was held virtually on Wednesday, June 15, 2022, and project background information and key details regarding the new option was presented, followed by a facilitated question and answer session. The remaining two community meetings were held on Saturday, June 18, 2022, at Panorama High School in Panorama City and Tuesday, June 21, 2022 at the Orchard Conference Center on the CSUN campus in Northridge. These two meetings were conducted in an open house setting with meeting boards and a formal presentation, followed by a facilitated question and answer session. All meetings included Spanish and Armenian interpretation, and materials were made

available in those languages.

As part of the SB 288 statutory exemption process, a virtual community meeting was held on Thursday, September 29, 2022, to present the project business case and racial equity analysis, and to respond to questions and comments received. The same notification process used for the June community meetings was used to publicize this meeting. An overview of the project and the BRT Network Improvements was included in the formal presentation, which was followed by a facilitated question and answer session.

Metro staff coordinated closely with CSUN leadership throughout this process and worked to ensure that students within the project area were aware of project updates and the new BRT Network Improvements and had opportunities to provide feedback. Outreach efforts to CSUN students included staffing a booth at an Associated Students Welcome Week event on Tuesday, August 30, 2022, and distributing a CSUN Transit Questionnaire to understand which elements of the BRT Network Improvements they deemed most important. The questionnaire was provided in both English and Spanish, with a total of 136 questionnaires completed (all were completed in English). Metro staff presented project information at the CSUN Associated Students Leadership in-person meeting on Monday, October 3, 2022, and members of the outreach team will staff an information booth at the CSUN Bikefest event to be held on Sunday, October 23, 2022, to distribute project information and gather feedback.

Questions and comments received throughout this process included: concerns about bus lanes on Nordhoff and the impacts they would have on the surrounding area; whether the new option meets the initial goals of BRT and serves the needs of transit riders; support for increasing service hours and frequency of buses, as well as other project elements; connections to other destinations and transit lines including Metrolink, as well as future Metro projects in the area; and concerns about safety on buses and at bus stops.

EQUITY PLATFORM

The adoption of the BRT Network Improvements approach will allow for increased mobility options, better connections, and improved transit service to benefit Black, Indigenous, and People of Color (BIPOC), lower income, and Equity Focus Communities across the project area in the North San Fernando Valley. The project may result in slight increases in general vehicle traffic but will improve transit customer experience and access to faster, more frequent, and reliable, high-quality transit service. Continued equity-oriented outreach will ensure such tradeoffs are considered by the community; and the ultimate project design will be reflective of and based on community feedback.

Additionally, throughout the project planning and development, community meetings and communications have been targeted to low-income communities along the project corridor, many of which rely on existing bus lines to be improved by this project.

DETERMINATION OF SAFETY IMPACT

Approval of this item will not impact the safety of Metro's customers or employees as implementation of the proposed project will enhance safety with bus lanes and bus bulbs, typically reducing problems

with traffic weaving in and out of curb lanes, while bus bulbs typically enhance pedestrian safety through larger space and narrowed crossing distance at key intersections.

FINANCIAL IMPACT

Funding of $2.3 million is included in the FY23 budget in Cost Center 4360, Project 471403 (North SFV BRT Corridor) for planning and environmental studies and community outreach. Since this is a multiyear project, the Cost Center Manager and Chief Operations Officer will be responsible for budgeting in future years.
The Adoption of the NSFV BRT Network Improvements as the Proposed Project is based on a project scope matched to the available Measure M dollars allocated for the project ($180 Million).

Impact to Budget
The funding source for the North San Fernando Valley BRT Corridor project is Measure M 35% Transit Construction. These funds are earmarked for the North San Fernando Valley BRT project and are not eligible for Metro bus and rail operating expenditures.

The bus service frequency improvements would be within Metro's annual allocation of 7 million revenue service hours (as defined in the NextGen Bus Plan) with increased operating speeds from proposed bus lanes, transit signal priority and bus bulbs, as well as adjusted service levels on various lines to accommodate the increased service levels proposed for two bus lines as part of the Proposed Project.
Based on the above plan, the Proposed Project is considered fully funded.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project proposes transit improvements that support the following goals outlined in Metro's Vision 2028 Strategic Plan:

- Provide high-quality mobility options that enable people to spend less time traveling.

Improved service frequency daytime weekdays every 10 minutes for the Roscoe Line 152 and Nordhoff Line 166 will provide faster, more frequent and reliable bus service and better connections to the regional transit network.

- Deliver outstanding trip experiences for all users of the transportation system.
  Planned enhanced stations and amenities will offer protection from the elements and improve trip experiences for Metro customers.
- Enhance communities and lives through mobility and access to opportunity.
- Serve key destinations and improve travel times through transit priority improvements and enhance communities and lives through mobility and access to opportunity.
- Expand transit access to key educational, employment and healthcare destinations and provide improved service to Metro's larger transit network for EFC.

The proposed project will provide improvements including peak hour bus lanes, transit signal priority,

bus bulbs, new bus shelters, new zero emission buses, improved service frequency, together resulting in a more comfortable, faster, more frequent, and reliability, bus service experience.

ALTERNATIVES CONSIDERED

The Board may decide not to approve the proposed BRT Network Improvements. This is not recommended as this project is included and funded in Measure M. Delaying the approval of the proposed project and environmental clearance would jeopardize the ability to meet the Measure M schedule.

NEXT STEPS

Following approval, staff would begin project implementation activities such as preparing to launch peak period dedicated bus lanes, and higher frequency service on Roscoe Boulevard and preparing partner agreement with City of LA to roll out new bus shelters. Advanced planning for new bus bulbs, signal priority, as well as battery electric buses, associated charging infrastructure, and all door boarding equipment would also quickly commence. These activities will lead to final roll out of the NSFV BRT Network Improvements by Winter 2025.

ATTACHMENTS

Attachment A - NSFV BRT Network Improvements Project Map
Attachment B - CEQA Statutory Exemption Notice of Exemption
Attachment C - Spring-Fall 2022 Outreach Summary

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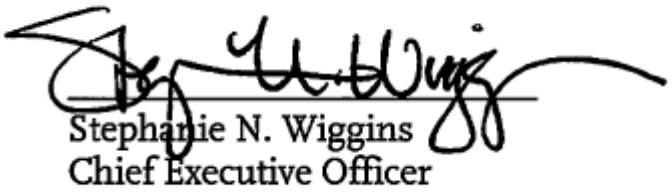
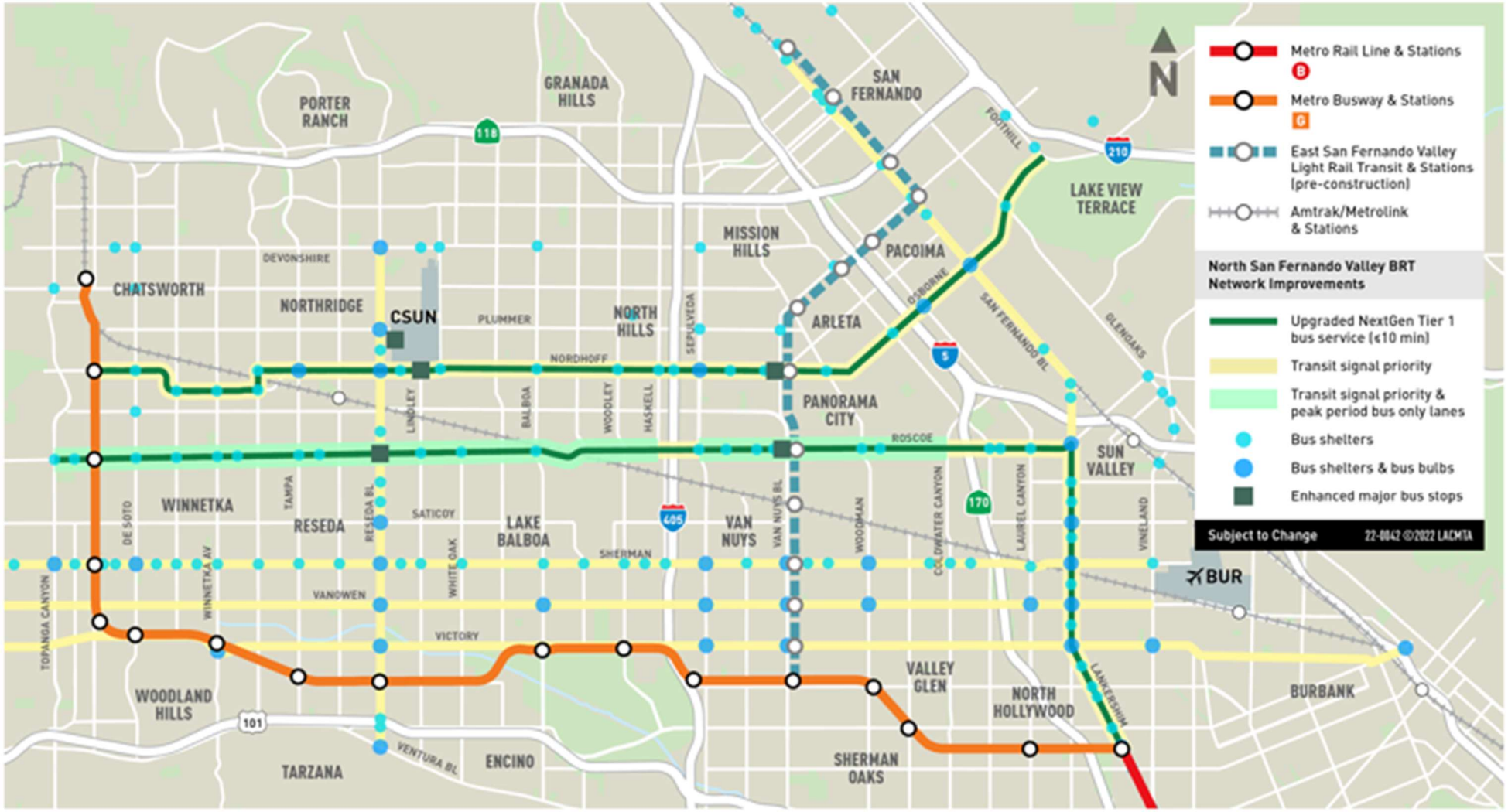


Stephanie N. Wiggins
Chief Executive Officer

Attachment A

North San Fernando Valley Transit Corridor

BRT Network Improvements



Print Form

ATTACHMENT B

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: Los Angeles
12400 Imperial Highway
Norwalk, CA 90650

From: (Public Agency): Los Angeles County Metropolitan Transportation Authority, One Gateway Plaza, Los Angeles CA 90012
Contact: Tom Kefalas (213) 418-3370

Project Title: North San Fernando Valley Transit Corridor Project

Project Applicant: Los Angeles County Metropolitan Transportation Authority (Metro)

Project Location - Specific: Various streets within the City of Los Angeles, San Fernando Valley (See Figures 1 and 2 attached)

Project Location - City: Los Angeles Project Location - County: Los Angeles

Description of Nature, Purpose and Beneficiaries of Project:

The North San Fernando Valley (NSFV) BRT Network Improvements is a Measure M project, with a projected opening date between FY2023 and FY2025. Currently $180 million in Measure M funds is allocated for this project. The proposed NSFV BRT Network Improvements would enhance existing bus service and increase transit system connectivity in the San Fernando Valley (SFV) by implementing peak period bus lanes in segments of Roscoe Boulevard where parking is already restricted and would be built within existing public right-of-way (ROW), increasing weekday daytime service frequency from 15 to 10 minutes for the Roscoe and Nordhoff corridors (bus lines 152 and 166 respectively), installing transit signal priority on 7 SFV corridors, implementing All-Door Boarding across SFV, adding bus bulbs at key, high usage bus stops at up to 82 locations across SFV on corridors such as Lankershim Boulevard, Nordhoff Street, and Reseda Boulevard where bus lanes are not being considered, to reduce bus stop delay, adding bus shelters at approximately 400 high-ridership stops on multiple corridors, enhancing five key bus stops with features such as higher capacity shelters, and static and real time information, at major boarding locations such as CSUN Transit Center, Reseda/Roscoe, Nordhoff/Lindley, Roscoe/Van Nuys, and Nordhoff/Van Nuys, and accelerating implementation of new electric buses on multiple SFV corridors through funding of new buses and charging infrastructure .

Name of Public Agency Approving Project: Los Angeles County Metropolitan Transportation Authority

Name of Person or Agency Carrying Out Project: Los Angeles County Metropolitan Transportation Authority

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☐ Categorical Exemption. State type and section number: _____
- ☒ Statutory Exemptions. State code number: PRC Section 21080.19, Section 21080.25(b)

Reasons why project is exempt:

PRC Section 21080.25(b) exempts from CEQA: (1)Transit lanes (i.e., street design that delineates space within the roadbed as exclusive to transit use); (2) Transit prioritization projects, including signal coordination, timing and phasing modifications, and installation of dedicated transit lanes; (3) Improving wayfinding for transit riders within the public ROW; (4) Designating and converting general-purpose lanes to bus-only lanes during peak congestion hours; (5) Instituting or increasing new BRT, bus, or light rail service on existing public ROWs, including the construction of stations; (7) Constructing or maintaining infrastructure to charge or refuel zero-emissions transit buses (subject to the requirements of subsection (b)6))

Lead Agency Contact Person: Tom Kefalas Area Code/Telephone/Extension: (213) 418-3370

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: _____ Date: _____ Title: Executive Officer

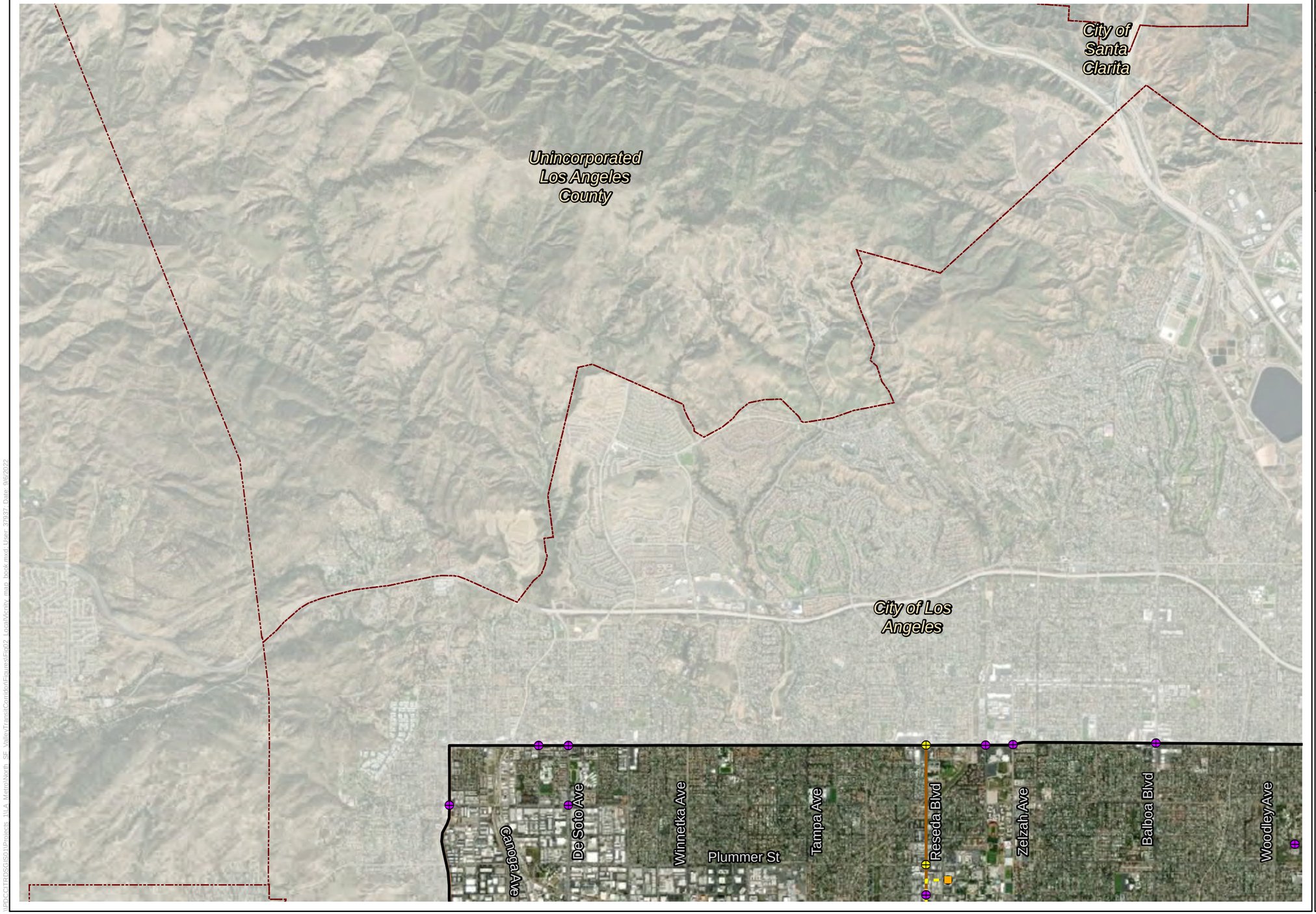
☐ Signed by Lead Agency ☐ Signed by Applicant

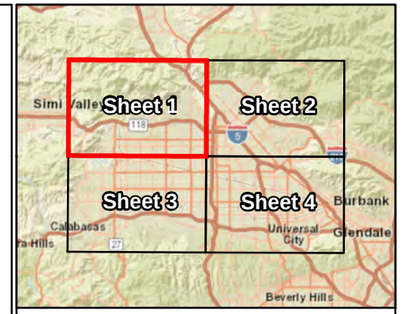
Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

ICF

Figure 1
Regional Map





Legend

- Study_Area
- City Boudary
- Single Line Alt3
- Bus Bulbs
- Network Enhanced Major Bus Stops
- Network Bus Shelters
- Single Line
- Network Tier1 Service
- Network Bus Lanes
- Network Signal Priority

0 0.5 1 Miles

1 in = 1 miles

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Figure 2, Sheet 1 of 4
Local Vicinity

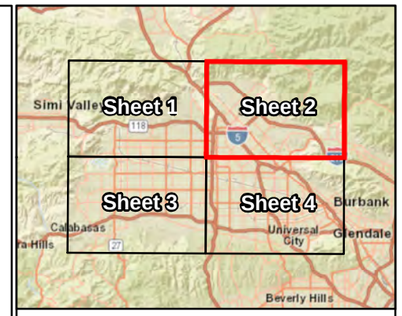

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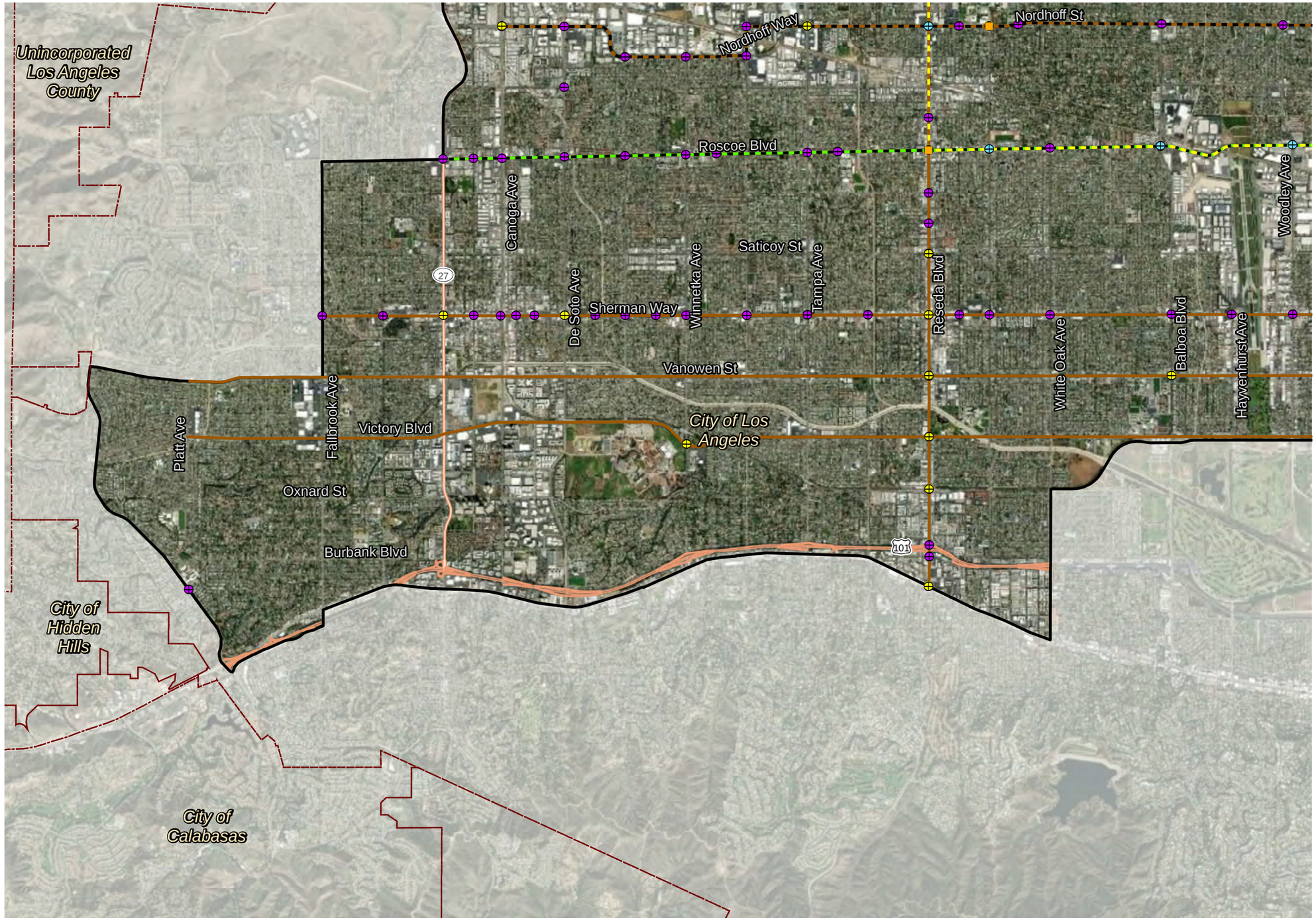
Figure 2, Sheet 2 of 4
Local Vicinity



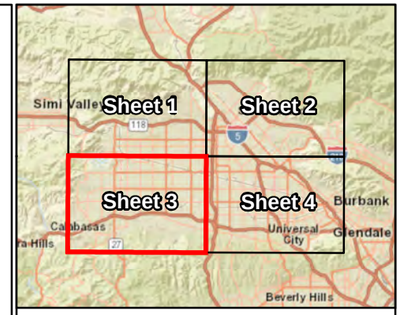


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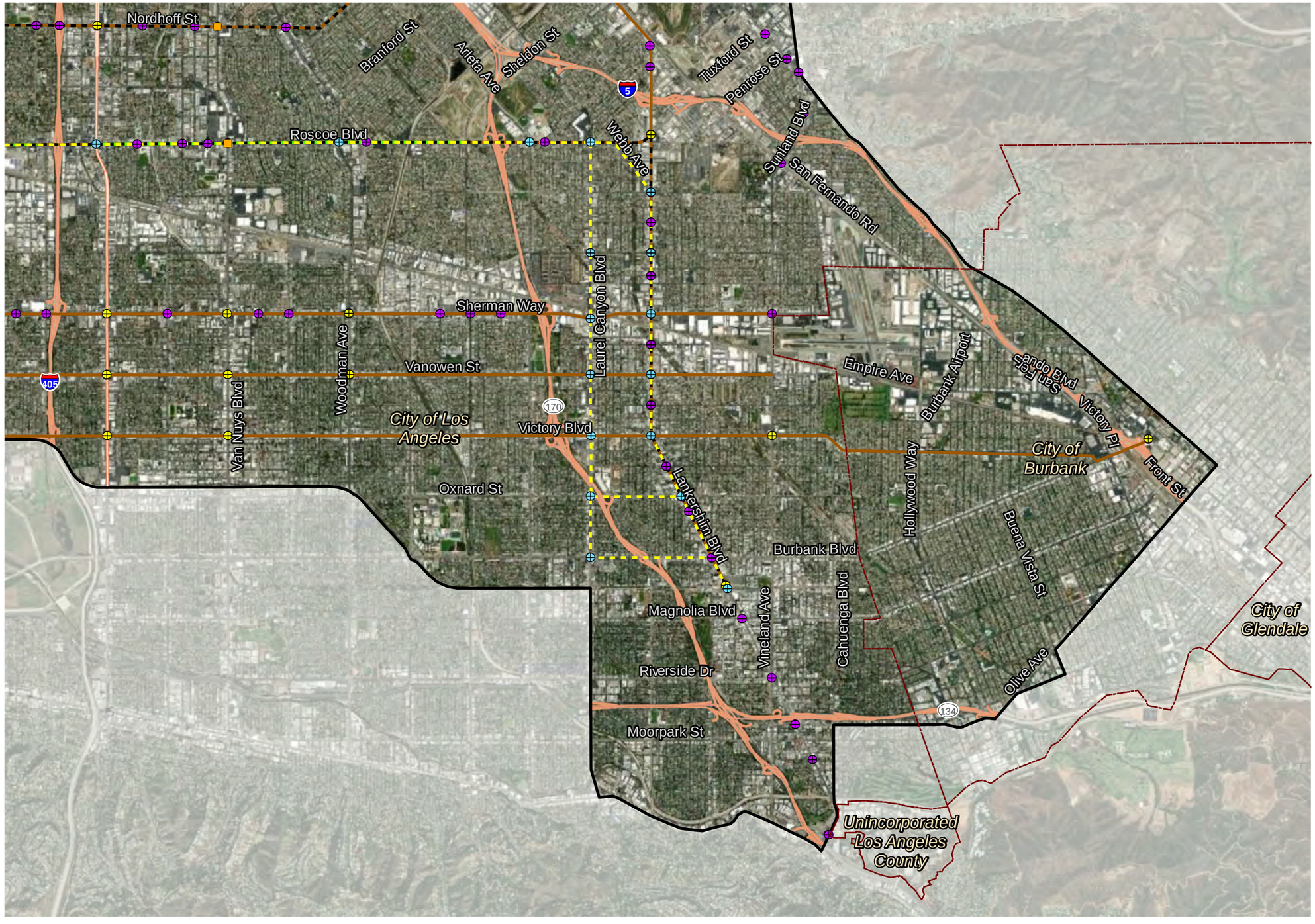
Figure 2, Sheet 3 of 4
Local Vicinity



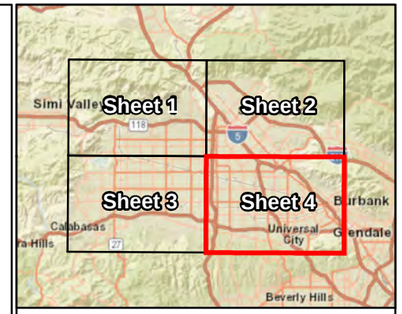


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Figure 2, Sheet 4 of 4
Local Vicinity

COMMUNITY ENGAGEMENT

In May 2022, Metro began introducing a new option for the North San Fernando Valley Transit Corridor project, the BRT (Bus Rapid Transit) Network Improvements, which differs from the single line BRT option originally proposed and later studied during the Alternatives Analysis (AA) in 2019. Metro conducted an additional round of public outreach to update the communities within the study area on revisions made to the project and the new BRT Network Improvements approach. These revisions were made in response to the over 4,500 comments received during the prior public engagement period from 2018 to 2020 and Metro Board direction to include a Roscoe Bl option, incorporate the NextGen Bus Plan, and further outreach to diverse communities. In order to present the BRT Network Improvements to the community and solicit feedback, the project team conducted several briefings and presentations with elected officials representing the project area, administration officials representing California State University, Northridge (CSUN), attended coordination meetings with Metro Board Deputies and City staff, and conducted key stakeholder meetings, as well as virtual and in-person community meetings.

This report documents the outreach activities conducted to engage with diverse and seldomly-engaged populations, including conducting transit rider intercept interviews at high ridership locations, engaging transit riders via anonymous questionnaires through the Transit App, and conducting door-to-door business outreach along key corridors including Roscoe Boulevard, Reseda Boulevard and Lankershim Boulevard. Additionally, an online engagement tool was made available using Esri StoryMaps to allow the community to learn more about the project and the BRT Network Improvements through interactive maps and graphics. A project update video was made available to provide background information on the history of the project leading up to the current period.

Additionally, this report documents the outreach activities conducted in coordination with the Senate Bill 288 (SB 288) statutory exemption process, which includes four community meetings from June 2022 through September 2022, at which time the project business case and racial equity analysis were presented at the SB 288 virtual community meeting held on September 29, 2022. The two reports were made available prior to the virtual community meeting and after the meeting for public review. This report documents the notification efforts leading up to the four community meetings and the feedback received throughout the outreach process from June 2022 through October 2022.

Throughout the public engagement effort, the project team gathered overall feedback on the BRT Network Improvements, SB 288 exemption process and any potential revisions to technical aspects. This effort provided multiple opportunities for key stakeholder groups, CSUN students and staff, transit riders, and communities within the North San Fernando Valley to provide feedback on the new approach and environmental review process. Public engagement opportunities were designed to be equitable, transparent, and inclusive, and provided community members with optional virtual and in-person meetings. Meetings occasionally extended beyond their scheduled times to ensure community questions and comments were adequately responded to. Due to the ongoing COVID-19 pandemic and to

ensure that vulnerable populations had adequate opportunities to participate in the community meetings, the first meeting in June and last meeting in September were held virtually to allow the public to attend from the safety of their homes. In addition, both meetings were recorded and made available on the project website along with the meeting presentation materials. Two in-person community meetings were held in settings that allowed for everyone to socially distance both inside and outside, and all attendees were encouraged to wear face coverings.

ENGAGEMENT ACTIVITIES: SPRING 2022 (MAY – AUGUST)

Elected Official and Key Stakeholder Briefings and Presentations

The project team attended several one-on-one meetings with key stakeholders to provide an overview of the project, the new BRT Network Improvements option, project timeline, outreach and engagement, and next steps in the process, as well as gather their feedback. Additionally, the project team briefed Metro Board staff, City staff, and other key elected offices regularly throughout the duration of the Spring 2022 outreach process.

As shown in Table 1, the briefings and presentations included the following key stakeholders:

Table 1. Elected Official and Key Stakeholder Briefings and Presentations

Meeting Date	Organizations
April 7, 2022	CSUN Leadership
May 4, 2022	Metro San Fernando Valley Service Council
May 6, 2022	Metro Board Staff
May 9, 2022	State and Federal Elected Offices
May 10, 2022	Los Angeles City Council Briefing (Council Districts 3, 4, & 12)
May 10, 2022	Valley Industry Commerce Association (VICA) Transportation Committee
May 16, 2022	Los Angeles City Council Briefing (Council District 6)
May 19, 2022	San Fernando Valley Council of Governments (COG) Transportation Committee
June 2, 2022	LADOT Vision Zero Staff
June 16, 2022	Los Angeles City Council Briefing (Council District 7)
June 24, 2022	Galpin Ford Motors
June 27, 2022	New Horizons
July 21, 2022	San Fernando Valley COG Board of Directors
July 22, 2022	Anheuser Busch
August 11, 2022	Valley Alliance of Neighborhood Councils
August 15, 2022	CD 12 “Conversations with Councils” Event

Key Stakeholder Roundtable Meetings

The stakeholder meetings included neighborhood councils, community-based organizations, businesses and business groups, and CSUN groups and organizations.

Roundtable Meetings

Two virtual roundtable meetings were conducted for mobility advocacy groups and neighborhood council leaders. These two meetings were held on weekdays and two meeting times were offered in order to accommodate their schedules. At each meeting, the project team provided an update on the project, timeline, outreach and engagement, and next steps, followed by an opportunity for dialogue and discussion with project staff. Each of the meetings allowed attendees to ask questions and provide feedback on the project and the BRT Network Improvements.

Neighborhood council leaders were notified by email leading up to the scheduled roundtable meetings with a total of six email notices (e-blasts), with an email open rate of approximately 46%. Table 2 provides a list of these meetings.

Table 2. Key Stakeholder Roundtable Meetings

Meeting Date	# of Attendees
Thursday, June 9, 9 AM – 10:00 AM	2
Wednesday, June 22, 11:30 AM – 12:30 PM	3
Total	5

The following key takeaways were received from the roundtable meetings:

- Questions about community and leadership feedback regarding direction to study the BRT Network Improvements.
- Concerns and questions regarding bus bulbs on Nordhoff Street and how vehicles and bicycles would interact with these new features.
- Questions regarding bus shelter design and coordination with the City of Los Angeles.
- Questions regarding outreach and organizations involved in the process.

Community Feedback During Spring Outreach

During the community outreach process leading up to the community meetings in June, additional comments were received via the project email and voicemail. The majority of comments received during that timeframe did not reference support for the project, but generally raised potential concerns and questions regarding the project update.

Key takeaways and individual comments received included:

- Comments expressed the need to increase hours of service and frequency of buses, and add bus priority lanes, queue jumpers, bus shelters and zero emission buses as part of the project.
- Concerns about bus only lanes on Nordhoff St.
- Comments and questions regarding how to learn more about the project and attend the community meetings.
- Concerns that the project no longer meets the initial goals of BRT and doesn't meet the needs of transit riders in the North Valley.
- Questions and comments regarding some of the proposed improvements, including locations of bus bulbs.
- Comments and questions about connections to destinations and other transit lines, including Metrolink, as well as future Metro projects, including Sepulveda Transit Corridor and the East San Fernando Valley Light Rail.
- Concerns about safety on buses and at bus stops.

Transit Rider App Questionnaire and In-person Intercept Interviews

Outreach efforts to existing transit riders were conducted to help ensure that those taking transit within the project area were aware of the updated project and the BRT Network Improvements, and had opportunities to provide feedback. In order to accomplish this, in-person transit rider intercept interviews were conducted at key bus stops with high ridership along Roscoe Boulevard, Nordhoff Street, Reseda Boulevard and the North Hollywood B Line (Red)/G Line (Orange) station.

Additionally, a questionnaire was sent out to transit riders within the project area via the Transit App. The questionnaire was designed to better understand the characteristics of transit riders in the project area and which elements of the BRT Network Improvements they deemed most important. The questionnaire was targeted to the geographic area within the North San Fernando Valley and was sent to approximately 12,011 unique devices. The questionnaire was available from June 1, 2022 – June 14, 2022 in both English and Spanish.

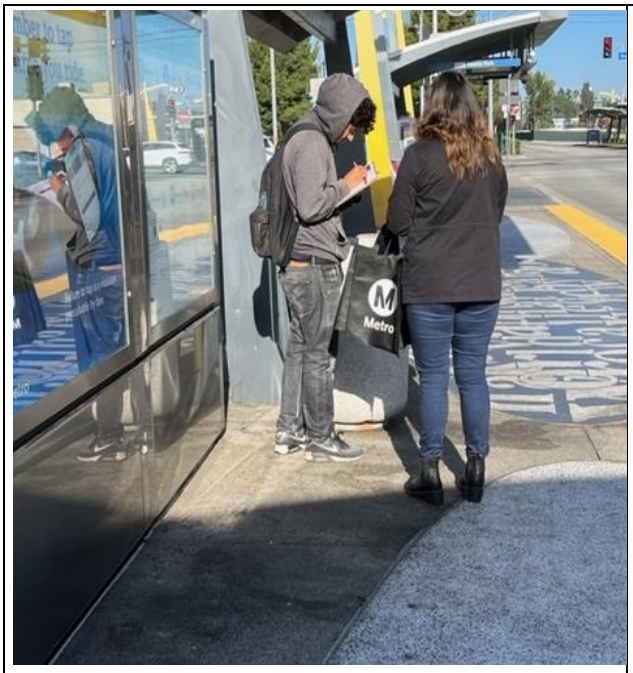
Table 3. Transit Rider Intercepts

Meeting Date/Time	Bus Stop Location
Tuesday, May 31, 2022, 7:00 – 9:00 AM	Nordhoff St and Van Nuys Bl
Wednesday, June 1, 2022, 7:00 – 9:00 AM	Reseda G Line (Orange) Station
Thursday, June 2, 2022, 7:00 – 9:00 AM	Roscoe Bl and Van Nuys Bl
Friday, June 3, 2022, 7:00 – 9:00 AM	Nordhoff St and Lindley Av
Monday, June 6, 2022, 7:00 – 9:00 AM	Roscoe Bl and Reseda Bl
Tuesday, June 7, 2022, 7:00 – 9:00 AM	NoHo B Line (Red)/G Line (Orange) Station

The following key takeaways were received from the transit rider intercept interviews:

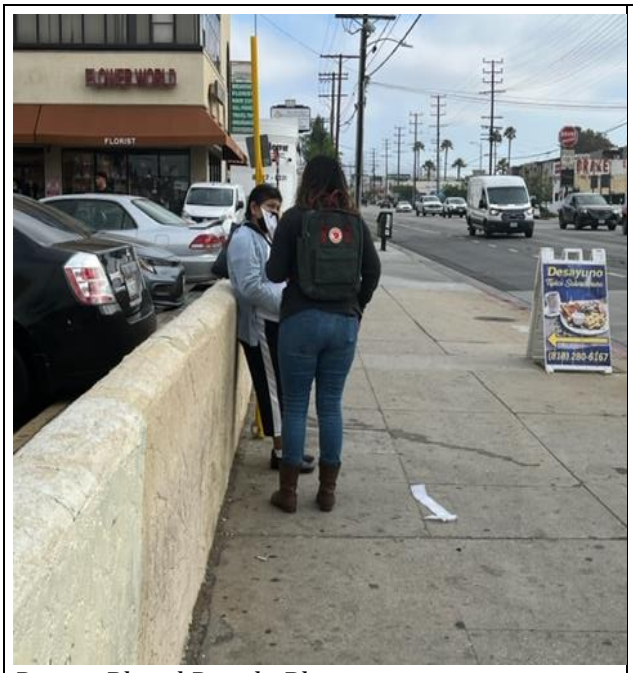
- Majority of transit riders interviewed did not know about the project, but were generally supportive.
- Questions raised about the possibility of introducing light rail.
- Questions raised regarding frequency of service and additional hours of service.

Figure 1. Transit Rider Intercepts



Reseda G Line (Orange) Station

Roscoe Bl and Van Nuys Bl



Roscoe Bl and Reseda Bl

Roscoe Bl and Van Nuys Bl

Table 4. Transit App Questionnaire

Transit App Questionnaire Targeted Audience	# of Completed Surveys
English Questionnaire	391
Spanish Questionnaire	115
Total Completed Questionnaires	506

The following key takeaways were received from the Transit App surveys:

- The top bus improvement benefits ranked by transit riders were: increased frequency of service; more reliable on-time buses; and shorter travel times from bus lanes and transit signal priority.
- The majority of respondents indicated they often experience delays due to traffic congestion.
- The majority of respondents indicated having a faster, more reliable trip time would encourage them to use the bus more.
- The majority of respondents ride Metro five or more days per week.
- Over half of respondents earn less than $25,000 annually.

Door-to-Door Outreach to Businesses

Outreach to businesses along Roscoe Boulevard, Lankershim Boulevard and Reseda Boulevard was conducted to further inform business owners and employees in the project area about the updated project and capture their feedback on the BRT Network Improvements. Door-to-door outreach was conducted along Roscoe Boulevard between Haskell Avenue and Lennox Avenue, Lankershim Boulevard between Tuxford Street and Chandler Boulevard, and Reseda Boulevard between Nordhoff Street and Oxnard Street. Flyers providing project background information, the BRT Network Improvements, and contact information for the project were distributed to these businesses.

Table 5. Door-to-Door Outreach to Businesses

Date/Time	Location	# of Businesses Contacted*
Monday, June 6, 2022, 9:00 AM – 2:00 PM	Roscoe Boulevard	103
Tuesday, June 7, 2022, 9:00 AM – 3:00 PM	Lankershim Boulevard	121
Wednesday, June 8, 2022, 9:00 AM – 12:00 PM	Reseda Boulevard	56
Total Businesses Contacted		280

*Open businesses that were contacted by project team members and provided with project information.

The following key takeaways were received from the door-to-door business outreach conducted:

- Majority of businesses contacted did not know about the project, but were generally supportive of the project overall.
- Many employees identified themselves as transit riders and expressed excitement about an increase in frequency and reliable service.
- Some businesses expressed concern about increased bus shelters and potential loitering outside of businesses.

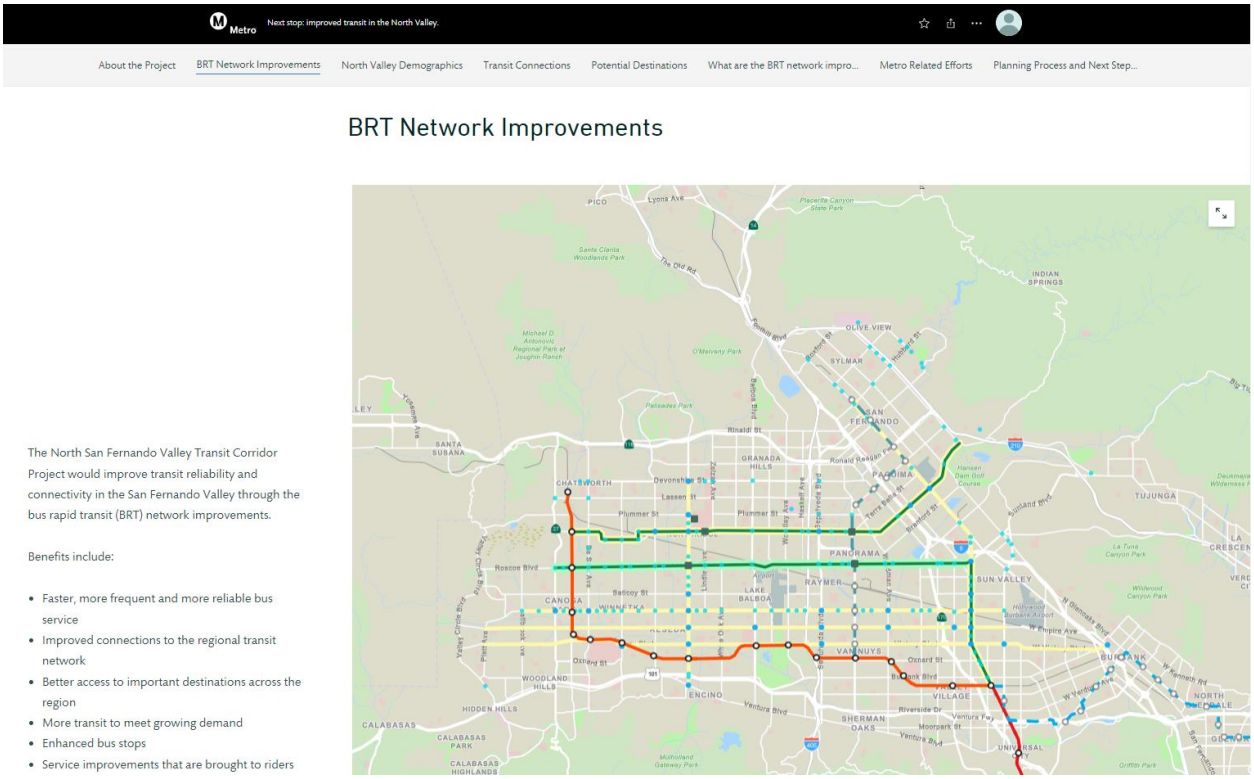
June 2022 Community Meetings

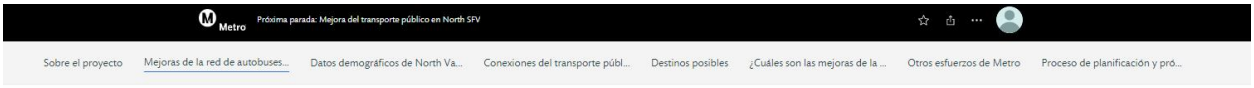
A total of three community meetings were held (one virtually and two in-person) to provide an update on the project and introduce the BRT Network Improvements. The first community meeting was held virtually on Wednesday, June 15, 2022 and presented background information on the project and key details regarding the BRT Network Improvements, before facilitating a question and answer (Q&A) session responding to

questions and comments received during the meeting. The other two community meetings were held on Saturday, June 18, 2022 at Panorama High School in Panorama City and on Tuesday, June 21, 2022 at the Orchard Conference Center on the CSUN campus, and provided an open house setting with meeting boards and a formal presentation about the project, followed by a facilitated Q&A session, where project team members responded to questions and comments received. The intent of these meetings was not only to provide updates to the community on the project and the BRT Network Improvements, but to solicit public feedback and respond to any questions and/or concerns. All meeting dates were chosen to provide opportunities for the public to attend at different times of the day during the week and on the weekend to accommodate the community's various schedules. All meetings included Spanish and Armenian interpretation, and all materials were made available in Spanish and Armenian.

An online StoryMap was developed and made available as part of the notification process for the community meetings. The StoryMap provided background information on the project, details on the BRT Network Improvements, and interactive maps highlighting the improvements and connections to local and regional transit and destinations in the North San Fernando Valley. The online StoryMap was made available in English, Spanish and Armenian. Figure 2 provides a screenshot of the StoryMap, which launched on May 27, 2022 and was included as a dedicated virtual link in notices to the public. This format continued to support Metro's goal of providing a safe and equitable environment for all participants during the ongoing COVID-19 pandemic.

Figure 2. Online StoryMap Presentation



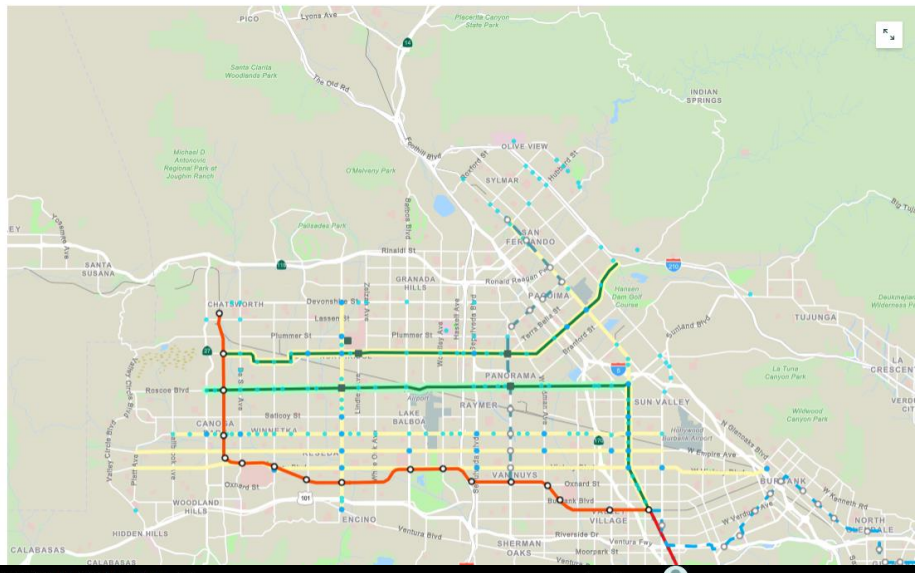


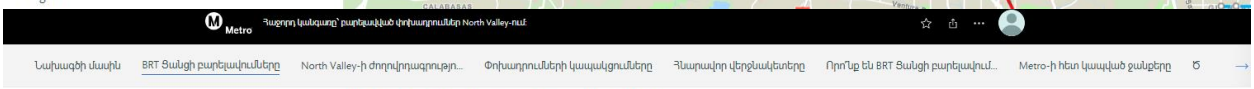
Mejoras de la red de autobuses de tránsito rápido

El proyecto del corredor de transporte público del norte del Valle de San Fernando mejorará la fiabilidad y la conectividad del transporte público en el Valle de San Fernando a través de las mejoras de la red de autobuses de tránsito rápido

Los beneficios incluyen:

- Un servicio de autobús más rápido, más frecuente y más confiable
- Mejores conexiones con la red de transporte público regional
- Más acceso a destinos importantes en toda la región





BRT Ցանցի բարելավումները

North San Fernando Valley-ի Փոխադրումների միջանցքի նախագիծը կբարելավի փոխադրման հուսալիությունը և կապակցումը San Fernando Valley-ում՝ ավտոբուսային արագ փոխադրման (bus rapid transit, BRT) ցանցի բարելավումների միջոցով:.

Նպաստները ներառում են՝

- Ավելի արագ, ավելի հաճախակի և ավելի վստահելի ավտոբուսային ծառայություն
- Ավելի շատ կապակցում շրջանային փոխադրումների ցանցի հետ
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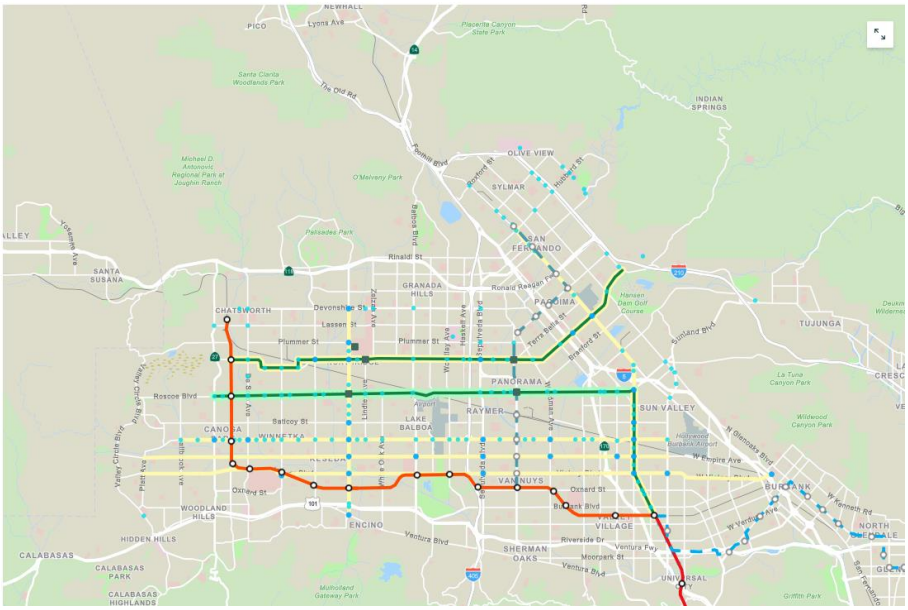

Community Meeting Notices

Noticing of the community meetings to project stakeholders was accomplished via emails (e-blasts), direct mailing to targeted equity-focused corridors, door-to-door flyer distributions, car cards on Metro buses, a notification on Metro's "The Source" and through Metro's social media accounts (Facebook and Twitter). A total of five e-blasts were sent notifying the public about the community meetings to a total of 2,851 individual email addresses, with an average email open rate of approximately 36%. Additionally, an e-blast was sent following the conclusion of the community meeting series thanking those who participated, and providing guidance on where to find the meeting materials presented, how to access the project StoryMap and the meeting recording, and a discussion on next steps. All e-blast notifications were distributed in English, Spanish and Armenian. A total of 96,000 flyers in English, Spanish and Armenian were distributed along the BRT Network Improvement corridors leading up to the community meetings (see Figure 3). Additionally, a direct mailing in English, Spanish and Armenian was distributed to 37,366 residential and commercial properties (including both owners and tenants) located in the project area's equity-focused communities (see Figure 4).

Figure 3. Door-to-Door Flyer Distribution Map

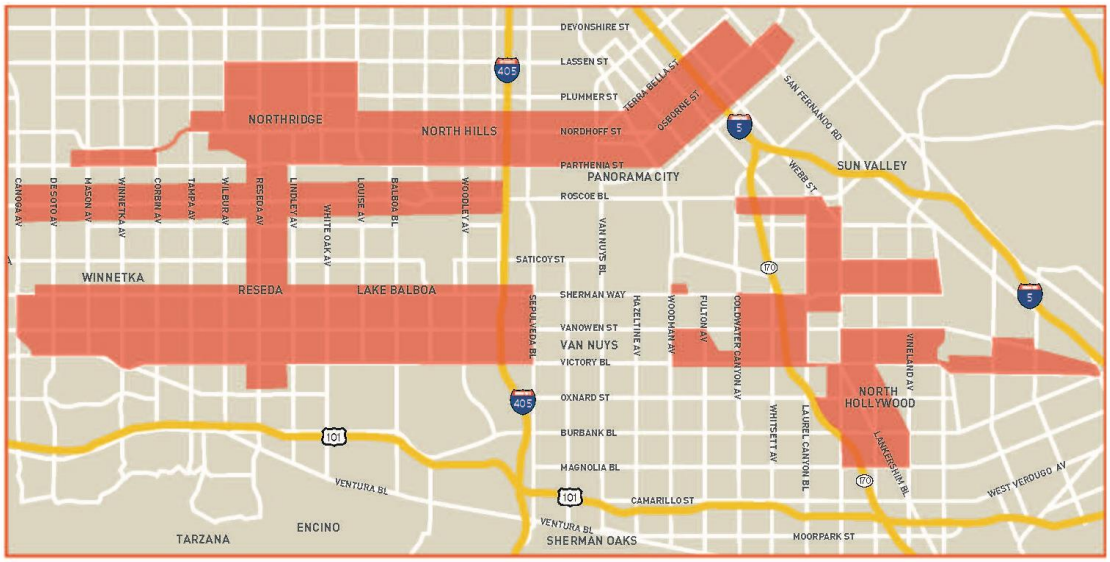

Figure 4. Direct Mailing Distribution Map

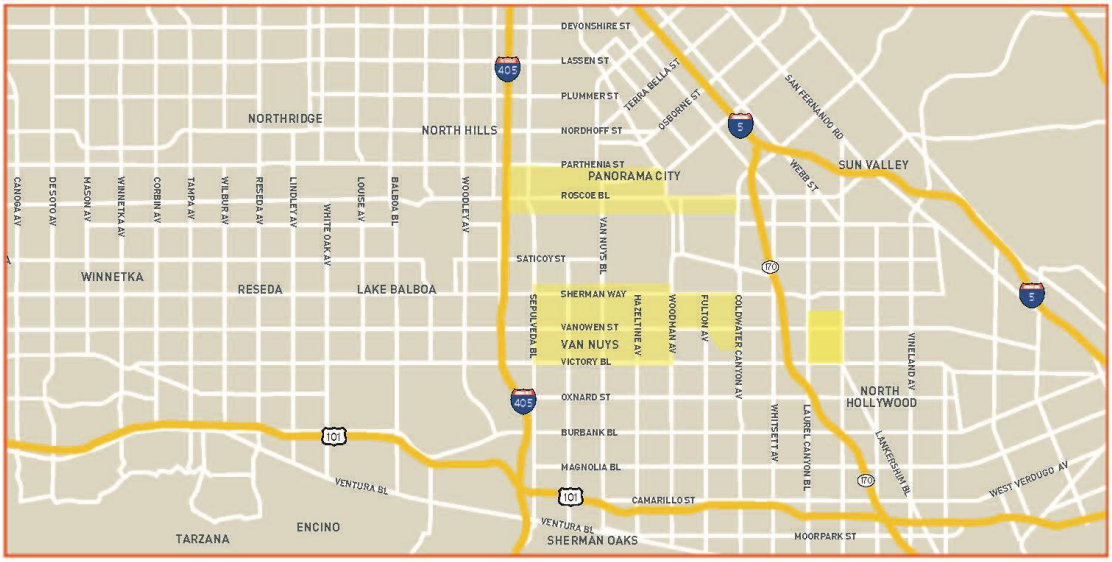

Table 6. Community Meetings

Meeting Date/Time	Location	# of Attendees	# of Comment Cards	# Written Questions/Comments
June 15, 2022, 11:00 AM – 1:00 PM*	Virtual via Zoom	67	N/A	77
June 18, 2022, 10:00 – 11:30 AM	Panorama High School	11	2	5
June 21, 2022, 6:00 – 7:30 PM	Orchard Conference Center, CSUN	41	3	19
Total Comments			5	101

**The virtual meeting time was extended 30 minutes to accommodate responding to questions received.*

Community Meeting Format and Materials

The format of the virtual community consisted of a PowerPoint presentation given by the project team followed by a facilitated question and answer session directly after the presentation. To allow for sufficient time to respond to questions and concerns, attendees were asked to submit them via the Zoom Q&A function or via a dedicated text message line. All comments and questions were documented during the meeting, but only responded to following the presentation.

The format of the two in-person community meetings began with meeting boards displayed in an open house setting with project team members available at each station to respond directly to questions and comments from attendees. Following the brief open house, the same PowerPoint presentation used at the virtual meeting was given by the project team followed by a facilitated question and answer session. Attendees were directed to write their questions on speaker cards provided at the sign-in station, as well as before and after the presentation. Upon conclusion of the question and answer session, the open house resumed and attendees were able to discuss their questions and comments directly with project team members.

The PowerPoint presentation provided information on the project background, details of the BRT Network Improvements, outreach conducted to-date, and next steps in the process. In addition to simultaneous Spanish and Armenian interpretation during all three meetings, a copy of all meeting materials was made available in Spanish and Armenian.

Meeting Comments

The majority of the comments and questions received at the community meetings were supportive of the project overall, but expressed concerns or questions regarding specific aspects of the BRT Network Improvements. The community meetings were designed to respond to clarifying questions and many of the questions and comments received were regarding individual aspects of the project.

The following key takeaways and individual comments were received from the community meetings:

- Questions raised regarding ridership projections and daily ridership numbers on the project corridors after BRT Network Improvements implementation.
- Questions raised about potential loss of travel and parking lanes on Nordhoff St.
- Questions raised about including bus only lanes on Nordhoff St and Roscoe Bl.
- Questions and concerns regarding bus bulbs, how they will be implemented, the dimensions of the bus bulbs and how they will interact with vehicles and cyclists.
- Questions and concerns regarding current safety on buses and at bus stops, and how safety will be addressed with implementation of this project.
- Questions regarding inclusion of bicycle infrastructure and bicycle lanes with this project.
- Questions regarding funding for the project compared to the single line BRT, and opportunities for additional improvements.
- Concerns regarding traffic from implementation of this project and how traffic congestion may be mitigated.
- Questions regarding outreach conducted and inclusion of CSUN students during the process.

- Questions regarding specific bus stops, which bus stops will receive amenity improvements, and how the proposed bus shelters will be implemented.
- Questions regarding transit signal priority and how vehicles and buses will interact.
- Questions regarding the proposed zero emission buses and how they will be charged and implemented.
- Questions and concerns about bus frequency and increased service in the North San Fernando Valley. Comments to consider increases to overall frequency, reliability and hours of service.

ENGAGEMENT ACTIVITIES (FALL 2022)

Table

Key Stakeholder Briefings and Presentations

The project team attended one-on-one meetings with key stakeholders to provide an overview of the project, the BRT Network Improvements option, SB 288 process, outreach and engagement, and next steps, as well as gather their feedback.

As shown in Table 7, the briefings and presentations included the following key stakeholders:

Table 7. Key Stakeholder Briefings and Presentations

Meeting Date	Organizations
October 3, 2022	CSUN Leadership
October 17, 2022	Joaquin Miller High School Site Visit
October 20, 2022	Roscoe Boulevard and Nordhoff Street Schools
October 20, 2022	San Fernando Valley Council of Governments
October 25, 2022	Cleveland High School Site Visit
October 26, 2022	Winnetka Elementary School Site Visit
October 26, 2022	Vista Middle School Site Visit

Outreach to CSUN Students

Outreach efforts to CSUN students were conducted at the Associated Students Welcome Week on August 30, 2022 to help ensure that students within the project area were aware of the project and the BRT Network Improvements, and had opportunities to provide feedback. In order to accomplish this, a booth was set up at the event with project boards and materials to showcase the improvements in the North San Fernando Valley. Students were asked to complete a survey by scanning a QR code from a project flyer.

The questionnaire was designed to better understand the characteristics of students in the project area and which elements of the BRT Network Improvements they deemed most important. One questionnaire in both English and Spanish was made available.

Table 8. CSUN Transit Questionnaire

CSUN Transit Questionnaire to Targeted Audience	# of Completed Surveys
English Questionnaire	136
Spanish Questionnaire	0
Total Completed Questionnaires	136

The following key takeaways were received from CSUN transit questionnaires:

- The top bus improvement benefits ranked by CSUN transit riders were: (1) more reliable on-time buses; (2) shorter travel times from bus lanes and transit signal priority; and (3) increased frequency of service. Over half of the respondents indicated they always or usually experience delays due to traffic congestion.
- The majority of respondents indicated having a faster, more reliable trip time would encourage them to use the bus more.
- The majority of respondents ride Metro less than 1 day per week, and about 25% of respondents indicated riding the bus 3-4 days per week or 5 or more days per week.
- Over half indicated their preferred mode of transportation was by car and over half either own or had access to a car.
- The most frequently used bus lines were the 166, 240 and the G line (Orange).
- One third of respondents indicated they had mobility difficulties.

Additionally, the project team presented to the CSUN Associated Students Leadership on October 3, 2022 to provide an update on the project, the SB 288 process and understand additional opportunities to engage with CSUN students during Fall 2022. The project team also plans on attending CSUN's Bikefest on Sunday, October 23, 2022 with a booth and project information to further engage with CSUN students and the community.

Community Feedback During Fall Outreach

During the community outreach process leading up to the SB 288 virtual community meeting in September, additional comments were received via the project email and voicemail. Some comments received during that timeframe did reference support for the project, but generally raised potential concerns and questions regarding the project update.

Key takeaways and individual comments received included:

- Concerns about bus only lanes on Nordhoff St.
- Comments and questions regarding how to learn more about the project and attend the community meetings.
- Comments regarding how the proposed project does not meet the initial goals of the original BRT single line or the needs of transit riders in the North San Fernando Valley.
- Comments and questions regarding the proposed bus only lanes on Roscoe Bl and how that might affect current travel lanes.
- Questions about inclusion of bike lanes or bike infrastructure as part of the project.
- Questions and comments regarding some of the proposed improvements, including where bus bulbs would be located.
- Comments and questions about connections to destinations and other transit opportunities, such as light rail and extending the Roscoe Bl bus line.

September 2022 SB 288 Virtual Community Meeting

A virtual community meeting was held to provide information on the SB 288 exemption process, findings from the project business case and racial equity analysis and information on the BRT Network Improvements. The community meeting was held virtually via Zoom on Thursday, September 29, 2022 and presented background information on the project, the SB 288 exemption process and key details regarding the performance of the BRT Network Improvements under the project business case and racial equity analysis. A question and answer (Q&A) session followed the presentation. The meeting included Spanish interpretation, and all materials were made available in Spanish.

The online StoryMap developed in May 2022 was updated to include information on the SB 288 process, access to the reports and updated maps to reflect the latest version of the BRT Network Improvements. The online StoryMap was made available as part of the notification process for the community meeting. The StoryMap provided background information on the project, SB 288 exemption process and reports, details on the BRT Network Improvements, and interactive maps highlighting the improvements and connections to local and regional transit and destinations in the North San Fernando Valley. The online StoryMap was made available in English, Spanish and Armenian. This format continued to support Metro's goal of providing a safe and equitable environment for all participants during the ongoing COVID-19 pandemic.

Community Meeting Notices

Noticing of the community meeting to project stakeholders was accomplished via emails (e-blasts), direct mailing to targeted equity-focused corridors, door-to-door flyer distributions, a notification on Metro's "The Source" and through Metro's Facebook account. A total of four e-blasts were sent notifying the public about the community

meetings to a total of 2,865 individual email addresses, with an average email open rate of approximately 33%. Additionally, an e-blast was sent following the conclusion of the community meeting thanking those who participated, and providing guidance on where to find the meeting materials presented, how to access the project StoryMap, SB 288 reports and the meeting recording, and information on next steps. All e-blast notifications were distributed in English, Spanish and Armenian. A total of 96,000 flyers in English, Spanish and Armenian were distributed along the BRT Network Improvement corridors leading up to the community meeting (see Figure 5). A direct mailing in English, Spanish and Armenian was distributed to 37,366 residential and commercial properties (including both owners and tenants) within the equity-focused communities in the project area (see Figure 6). Additionally, flyers were dropped off at 38 locations within the corridor targeting locations that are open to the public or familiar within the community, including schools, community centers, libraries and recreation centers.

Figure 5. Door-to-Door Flyer Distribution Map

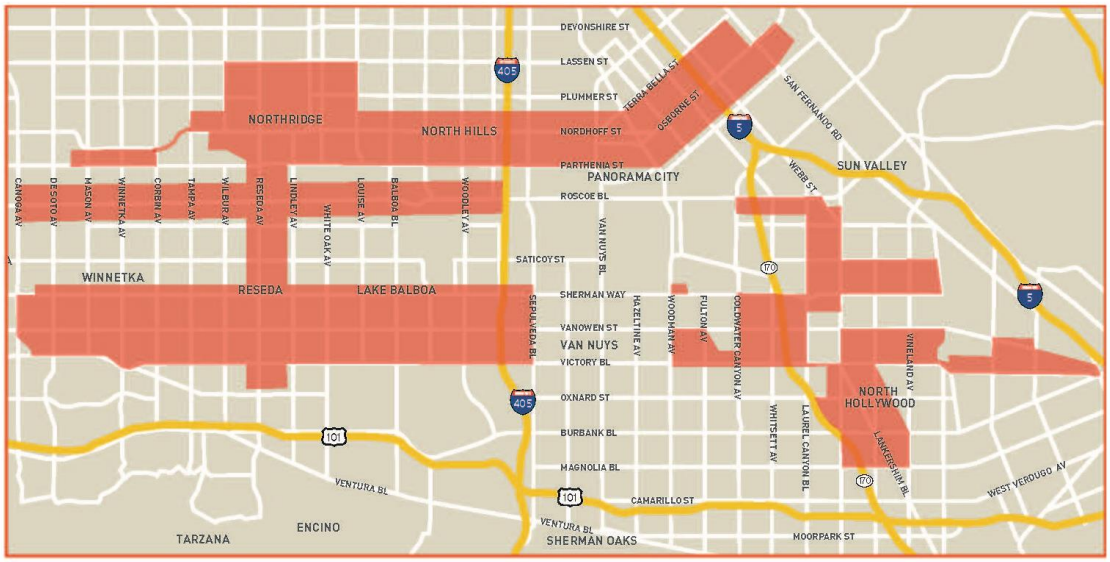

Figure 6. Direct Mailing Distribution Map

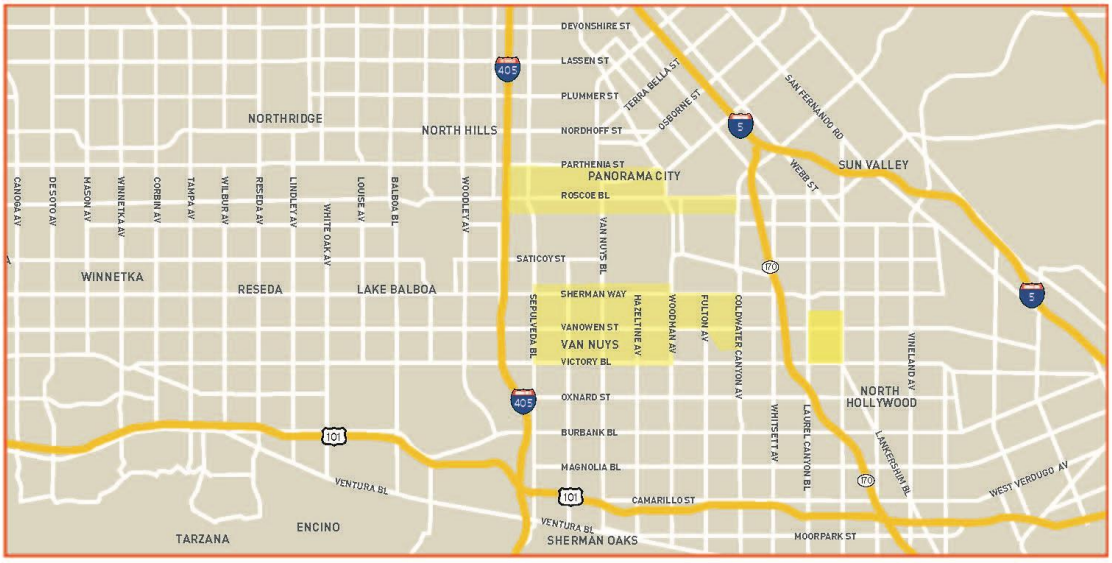

Table 9. September Community Meeting

Meeting Date/Time	Location	# of Attendees	# Written Questions/Comments
September 29, 2022, 6:00 – 8:00 PM	Virtual via Zoom	71	84

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Community Meeting Format and Materials

The format of the virtual community meeting consisted of a PowerPoint presentation given by the project team followed by a facilitated question and answer session directly after the presentation. To allow for sufficient time to respond to questions and concerns, attendees were asked to submit questions via the Zoom Q&A function or via a dedicated text message line. All comments and questions were documented during the meeting, but only questions were responded to following the presentation.

During the PowerPoint presentation, information was provided on the project background, the SB 288 exemption process, how the BRT Network Improvements performed in the project business case and racial equity analysis reports, outreach conducted to-date, and

next steps in the process. In addition to simultaneous Spanish interpretation during the community meeting, a copy of all meeting materials was made available in Spanish.

Meeting Comments

The majority of the comments and questions received at the community meeting were supportive of the project overall, but expressed concerns or questions regarding specific aspects of the BRT Network Improvements. The community meeting was designed to respond to clarifying questions and many of the questions and comments received were regarding individual aspects of the project.

The following key takeaways and individual comments were received from this meeting:

- Questions raised regarding ridership projections and daily ridership numbers on project corridors after BRT Network Improvements implementation.
- Questions and comments raised about potential loss of travel or parking lanes on Nordhoff St.
- Questions and comments raised about the project increasing traffic congestion on Nordhoff St.
- Clarifying questions raised about bus only lanes on Nordhoff St.
- Questions and concerns regarding bus bulbs, how they will be implemented, the dimensions of the bus bulbs, and how they will interact with existing lanes, vehicles and cyclists.
- Questions and concerns regarding current safety on buses and at bus stops, bus operator safety, and how safety will be addressed with implementation of this project.
- Questions and concerns regarding unhoused individuals and how the project may help address concerns during implementation.
- Questions regarding inclusion of bicycle infrastructure and bicycle lanes with this project.
- Concerns regarding traffic from implementation of this project and how traffic congestion may be mitigated.
- Questions regarding outreach conducted and inclusion of schools on Nordhoff St and Roscoe Bl during the process.
- Questions regarding bus stops, which bus stops will receive amenity improvements, and how the proposed bus shelters will be implemented.
- Questions regarding specific bus lines, access to bus lines and their current status of service.
- Questions regarding transit signal priority and how vehicles and buses will interact.
- Questions regarding funding for continued operations and maintenance after the project is implemented.
- General questions regarding bus fares and bus rider information.

Next stop: a new way to travel in the North Valley.

NORTH SAN FERNANDO VALLEY TRANSIT CORRIDOR

North SFV Transit Corridor Project
Legistar file #: 2022-0578

November 16, 2022

Metro

Recommended Board Actions

Consider:

> RECEIVING 1) the North San Fernando Valley (NSFV) Transit Corridor environmental study findings per Senate Bill 288 Statutory Exemption requirements; and 2) the outreach summary report for community and stakeholder engagement conducted throughout summer and fall 2022

> APPROVING the Proposed Measure M NSFV Bus Rapid Transit (BRT) Network Improvements Option for implementation

> APPROVING the finding that the Proposed Project is statutorily exempt from CEQA under Sections 21080.19 and 21080.25(b); and

> AUTHORIZING the Chief Executive Officer to file a CEQA Notice of Exemption (NOE) for the Project with the Los Angeles County Clerk

Project Background

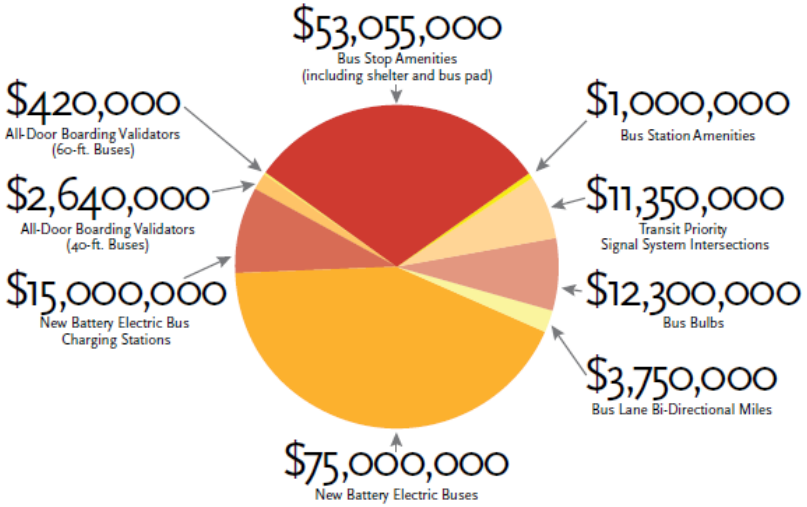
- 2016 – Measure M Project
  - Description: North San Fernando Valley BRT Improvements
  - $180 million in Measure M Funds and opening in 2025
- 2019 – Completed Alternatives Analysis (AA)
  - Include Roscoe Bl & NextGen in the study of alternatives
  - Nearly 4,400 comments received
  - Based on comments received on AA and coordination with NextGen, a new proposed BRT Network Improvements option identified
- 2019-2022 – Environmental Review and Community Outreach
  - Additional technical analysis and community outreach of proposed project
  - Overall support for BRT Network Improvements
  - Explanation of key project elements needed (e.g. bus bulbs, zero-emission buses, bus priority lanes)
  - Completed Project Business Case and Racial Equity Analysis for Senate Bill 288 CEQA Statutory Exemption

Proposed BRT Project Elements

Transit Signal Priority

Enhanced Stops with Branding

Electric Buses with All-Door Boarding

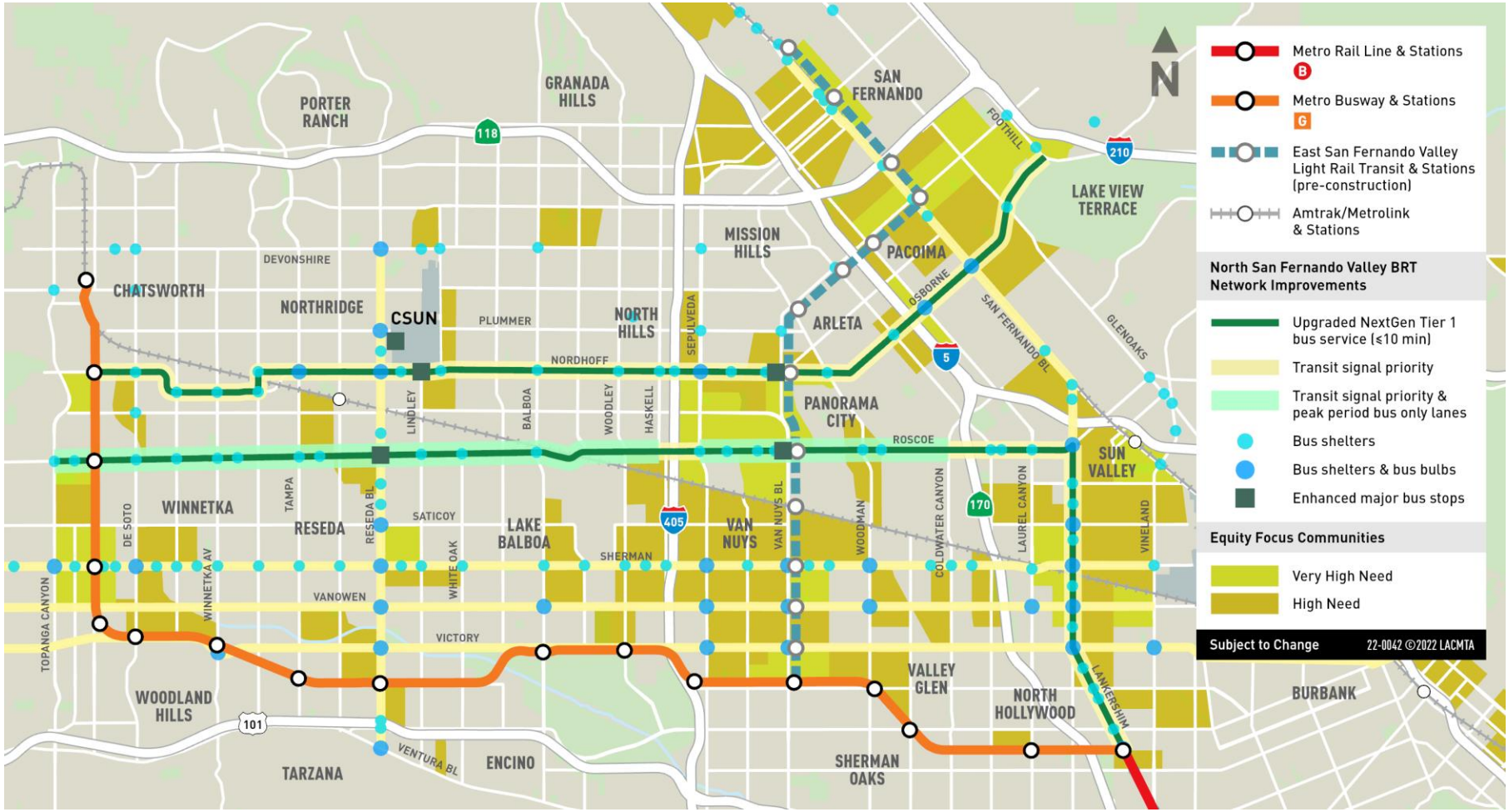


Bus Shelters

More Frequent Service

Peak-Hour Bus Only Lanes

Proposed Project Overview



Next Steps

- Ongoing community and stakeholder engagement
- Summer/Fall 2023 – begin implementation of Roscoe Blvd bus priority lanes, 10-min weekday service on Roscoe & Nordhoff, and bus shelters
- Winter 2023 - begin implementation of bus bulbs, zero-emission buses, and transit signal priority
- 2025 – opening year per Measure M

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0684, **File Type:** Contract **Agenda Number:** 17.

REVISED
PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2 PROJECT

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING the Lambert Station in the City of Whittier the terminus for the 9 miles Eastside Transit Corridor Phase 2 project and authorizing the preparation of the final Environmental Impact Report (EIR) for the full project through California Environmental Quality Act (CEQA);

B. APPROVING the Locally Preferred Alternative (LPA) as Alternative 3: IOS Greenwood, between the existing terminus of Metro L (Gold) Line to Greenwood Station; with design options for Atlantic/Pomona (open underground station) and Greenwood Station (at-grade) and a Maintenance and Storage Facility (at-grade) located in the city of Montebello; and

C. APPROVING the results of the Title VI Equity Analysis: Siting and Location of Maintenance and Storage Facility Sites for the Eastside Transit Corridor Phase 2 project;

D. AUTHORIZING the Chief Executive Officer to execute Modification No. 22 to Contract No. PS4320-2003 with CDM Smith/AECOM Joint Venture (JV) Technical and Outreach Services to reinitiate the National Environmental Policy Act (NEPA) environmental clearance process in the amount of $4,748,305, increasing the total current contract value from $27,585,479 to $32,333,784 and extend the period of performance from December 30, 2022, to December 31, 2024.

ISSUE

Metro is the lead agency for the Reinitiated California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) for the Eastside Transit Corridor Phase 2 project. The Reinitiated Draft EIR was released on June 30, 2022. Pursuant to the California Environmental Quality Act (CEQA), a Locally Preferred Alternative (LPA) would need to be selected by the Board to prepare the Final EIR. As the lead agency for CEQA, the agency can environmentally clear the full alignment to Whittier and the LPA.

A Title VI Service Equity Analysis was developed for the Maintenance Storage Facility site options pursuant to Metro's Title VI Program. A record of the Board action on the Title VI findings, if approved, will be forwarded to the FTA.

Per a Board request at the February 2022 meeting, staff was directed to reinitiate National Environmental Policy Act (NEPA) environmental process. To accomplish this, Board approval is needed for Contract Modification No. 22, PS4320-2003 with CDM Smith/AECOM Joint Venture (JV).

BACKGROUND

Eastside Transit Corridor Phase 2 is an approximately 9-mile light rail transit extension proposed from the existing Metro L (Gold) Line terminus station at Atlantic/ Pomona, traveling east in an underground configuration to Citadel Outlets in Commerce. The route then proceeds east along Washington Boulevard via aerial and at-grade configurations ending at Lambert Road in Whittier. Proposed stations considered along this route include:

- Relocated Atlantic/Pomona Boulevard station
- Atlantic/Whittier Boulevard station in East Los Angeles
- Commerce/Citadel station in Commerce
- Greenwood Avenue station in Montebello
- Rosemead Boulevard station in Pico Rivera
- Norwalk Boulevard station serving unincorporated Los Nietos, Whittier, and Santa Fe Springs, and
- Lambert Road station in Whittier

In addition to the full project alignment, Initial operating segments (IOS) were introduced to the Board at their February 2022 meeting (Item #2020-0010).

IOS-1Commerce would extend the Metro L (Gold) Line approximately 3.2 miles from the current terminus at Atlantic Boulevard to an underground terminal station at the Commerce/Citadel station in the City of Commerce with connections to the Commerce MSF site option.

IOS-2 Greenwood would extend the Metro L (Gold) Line approximately 4.6 miles east from the current terminus at Atlantic Boulevard to an aerial or at-grade terminal station at the Greenwood station in the City of Montebello.

A summary of the build alternatives is listed and summarized in subsequent sections.

The Measure M Ordinance identifies $3 billion (2015$) in funding; with escalation (to year of expenditure or 2029), this funding is estimated at $4.4 billion from Measure M and other local and state sources. Because the project is comprised of state and local funding only, the Board approved discontinuing the NEPA analysis from the project's environmental process at their February 2020 meeting to align the project to the Board's acceleration goals. With the recent passage of the Infrastructure Investment and Jobs Act (IIIJA), these federal funding opportunities were not available pre-pandemic, before the Board discontinued NEPA. At the February 2022 meeting, the Board requested that staff reinitiate NEPA to seek federal funding opportunities. Metro is committed to the

build out of the full project. The Federal Transit Administration (FTA) supports projects with known timelines and with local funding commitments. Therefore, the LPA should align with FTA's processes to streamline the project, making it shovel ready for construction and the best candidate for federal funding. Alternative 3 IOS Greenwood is the best option for meeting the federal requirements of local commitment based on identified local funding sources and a more certain timeline due to the limited number of regulatory agencies requiring extensive coordination, such as Caltrans and US Army Corps of Engineers on the full alignment. Additionally, the Board requested that staff pursue engineering activities to streamline the project, identify alternative project delivery, and reduce project risks. Meanwhile, the CEQA-only environmental clearance process continues for the full alignment and LPA with the Reinitiated Draft EIR released on June 30, 2022, with a 60-day public review period through August 29, 2022.

DISCUSSION

Alternatives Evaluated in the Draft EIR

The Draft EIR evaluates the No Project Alternative and three Build Alternatives, design options, and two maintenance and storage facility (MSF) site options. Descriptions of these project elements are in the attached Draft EIR Executive Summary (Attachment A) and on the project website metro.net/eastside2022 <https://storymaps.arcgis.com/stories/f609c050ef0e405e995c195d3cb8449d>. The following provides a list of each alternative and design options, and MSF options evaluated in the Draft EIR.

- **Alternative 1 Washington:** Existing Atlantic/Pomona terminus to Lambert station
  - Design Option 1: Atlantic/Pomona station open underground station
  - Design Option 2: At-Grade Greenwood station
  - Design Option 3: At-Grade Montebello MSF
- **Alternative 2 IOS Commerce**: Existing Atlantic/Pomona terminus to Citadel/Commerce station with Commerce MSF site option only
  - Design Option 1: Atlantic/Pomona station open underground station
  - Design Option 2: At-Grade Greenwood station
  - Design Option 3: At-Grade Montebello MSF
- **Alternative 3 IOS Greenwood:** Existing Atlantic/Pomona terminus to Greenwood Station in the City of Montebello
  - Design Option 1: Atlantic/Pomona station open underground station
  - Design Option 2: At-Grade Greenwood station
  - Design Option 3: At-Grade Montebello MSF
- **Commerce MSF site option**
- **Montebello MSF site option**

Alternative 1 Washington begins at the existing Atlantic/Pomona terminus station and ends at the Lambert station in the City of Whittier. Alternative 1 is the longest alignment at approximately nine miles, with seven stations and two maintenance and storage facility site options. The alignment includes design options at the Atlantic/Pomona station, Montebello alignment, Montebello MSF lead tracks, and the Greenwood station.

Alternative 2 IOS Commerce begins at the Atlantic/Pomona terminus station and ends at the

Commerce/Citadel station. Alternative 2 is the shortest alignment at approximately 3.2 miles with three stations and only allows connection to the Commerce MSF. The alignment includes design options at the Atlantic/Pomona station.

Alternative 3 IOS Greenwood begins at the Atlantic/Pomona terminus station and ends at the Greenwood station. Alternative 3 is approximately 4.6 miles with four stations and two maintenance and storage facility site options. This alignment includes design options at the Atlantic/Pomona station, Montebello alignment, Montebello MSF site option, and the Greenwood station.

The **Commerce MSF** site option is located in the City of Commerce, and this site supports any of the three build alternatives. The site is located west of Washington Boulevard and north of Gayhart Street. The site is bounded by Davie Avenue to the east, Fleet Street to the north, Saybrook Avenue to the west, and an unnamed street to the south. The site is approximately 24 acres. The facility would accommodate storage of approximately 100 light rail vehicles.

The **Montebello MSF** site option is located in the City of Montebello. The site can support Alternative 1 and Alternative 3. The site is north of Washington Boulevard and south of Flotilla Street between Yates Avenue and S. Vail Avenue. The site is approximately 30 acres. The facility would accommodate storage of approximately 120 light rail vehicles. Only one of the two MSF site options would be constructed under the Project.

Table 1 illustrates the project components for each alternative and design option listed in the sections above.

Components	Build Alternatives		
	Alternative 1 Washington	Alternative 2 Commerce/Citadel IOS	Alternative 3 Greenwood IOS
Alignment length	9 miles	3.2 miles	4.6 miles
Length of underground, aerial, and at-grade	**Base Alternative**		
	3 miles underground; 1.5 miles aerial: 4.5 miles at-grade	3 miles underground 0.1 miles aerial; 0.1 miles at-grade	3 miles underground; 1.5 miles aerial; 0.1 miles at-grade
	Atlantic/Pomona Station Option		
	Approximately 50 feet of additional underground alignment	Approximately 50 feet of additional underground alignment	Approximately 50 feet of additional underground alignment
	Montebello At-Grade Option		
	3 miles underground; 0.5 miles aerial; 5.5 miles at-grade	NA	3 miles underground; 0.5 miles aerial; 1.1 miles at-grade
Station configuration	**Base Alternative**		
	7 stations: 3 underground (1 relocated/ reconfigured); 1 aerial; 3 at-grade	3 stations: 3 underground (1 relocated/reconfigured)	4 stations: 3 underground (1 relocated/reconfigured); 1 aerial
	Montebello At-Grade Option		
	4 at-grade; 0 aerial	NA	1 at-grade; 0 aerial
MSF site options	2	1	2

Notes:

MSF = Maintenance and Storage Facility

The Base Alternative is the Build Alternative without implementing any design options (Atlantic/Pomona Station Option and/or Montebello At-Grade Option). Design Options are listed in the table if they differ from the Base Alternative.

Total lengths do not include MSF lead track.

The at-grade length includes 0.05-mile of transition from at-grade to underground.

Environmentally Superior Alternative

Under Section 15126.6(a)(b) of the CEQA guidelines, an environmentally superior alternative must be identified to determine which alternative possesses an overall environmental advantage when compared to all other alternatives and alternatives with the potential for avoiding or substantially lessening significant impacts. The Environmentally Superior Alternative is not always the same as the Locally Preferred Alternative because it is primarily an enumeration of the number of impacts. Other measures are used to recommend the Locally Preferred Alternative, including fiscal and performance measures. A summary of the Draft EIR findings related to the environmentally superior alternative is outlined below.

The No Project Alternative would have the greatest number of significant and 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. The No Project Alternative would also be inconsistent with the State's long-term climate strategies. The No Project Alternative's incremental contribution to climate change would also be significant and unavoidable concerning GHG emission reduction plans. The No Project Alternative would also not achieve or address any of the Project objectives since it would not include a new rail service in the project area. Given the conflicts with adopted state, regional and local plans and its inability to meet Project objectives, the No Project Alternative would not be the environmentally superior alternative.

Alternatives 1, 2, and 3 with the Commerce MSF site option, with or without the design option(s), would result in significant and unavoidable impacts to cultural resources related to the demolition of the historic Pacific Metals Company Building and removal of properties within the potential Vail Field Industrial Addition historic district at the Commerce MSF site. Therefore, Alternatives 1, 2, and 3 with the Commerce MSF site option would result in additional significant unavoidable impacts to cultural resources and would not be considered the environmentally superior alternative. Since Alternative 2 only includes the Commerce MSF site option, it would be unfeasible to pursue this alternative because it does not continue east to connect to the environmentally superior MSF option, which is the Montebello MSF.

Alternatives 1 and 3 with the Montebello MSF site option, with or without the design options, would have similar findings of environmental impacts and mitigation measures. While many of the same mitigation measures apply to Alternative 1 and 3 and reduce impacts to less than significant, there is a greater number of properties and public rights-of-way with impacts that must be mitigated under Alternative 1. Additionally, Alternative 1 would require regulatory agency coordination with the United States Army Corps of Engineers and Caltrans with long lead times for review and agreements for the river crossing and I-605 underpass, respectively. The construction duration for Alternative 1 is longer than Alternative 3 due to its length. Because Alternative 1 is a longer alignment compared to Alternative 3 with less impacts such as traffic, noise, and property acquisition, Alternative 3 has been identified as the environmentally superior alternative.

Public Comments Summary

A robust outreach program was developed for the project that included partnering with local Community-Based Organizations (CBO). The CBO Roundtable served as local experts that advised the project team on best outreach practices for enhancing notification and simplifying meeting materials. Several rounds of community meetings were conducted prior to the release of the Draft EIR. At each round of meetings, the project team provided project and design updates, including the approximate timeframe the Draft EIR would be released. These meetings were held in November 2021, March 2022, and June 2022. The June 2022 meetings further highlighted how the community and stakeholders could navigate and comment on the Draft EIR. All meetings were held virtually, however, to provide technical assistance and resources, tech booths/vans were available concurrently with each virtual meeting. The tech booth/vans were located near public facilities with accessibility to transit. In total, 9 tech booths were available over the course of three rounds of outreach, and 14 participants utilized the tech booths.

The Draft EIR was released for public review and comment for 60-days from June 30, 2022, through August 29, 2022. Noticing of its release was done in accordance with CEQA regulations that also extended notification process and included three coordinated rounds of notification that included information on the June meetings, details about the Public Hearings, the official release date of the Draft EIR, and comment methods on the Draft EIR. Public notification incorporated a combination of 53,000 direct mail notices, 92,000 door-to-door drop-offs, required legal notices on local newspapers, social media posts and ads, E-blasts, 676 SMS text messages, podcast, press releases, notices on the project website, information booths at local events, pop-up events, and other methods. The Notice of Availability (NOA) was filed with the California State Clearinghouse and mailed to public and responsible agencies, organizations, elected officials, and other interested parties. The NOA was distributed at the start of the comment period to announce the availability of the Draft EIR and to promote the public hearings.

Table 2 details the four (4) public hearings held as part of the Draft EIR release.

#	Date and Time	In-Person Location/Address
1.	Thursday, July 21, 2022 6-8pm	Kaiser Permanente Medical Offices 5119 Pomona Bl Los Angeles, CA 90022
2.	Saturday, July 30, 2022 10am-12pm	Applied Technology Center High School 1200 W Mines Av Montebello, CA 90640
3.	Thursday, August 11, 2022 6-8pm	Virtual via Zoom In-person livestreaming site: City of Pico Rivera - Council Chamber 6615 Passons Bl, Pico Rivera, CA 90660
4.	Wednesday, August 17, 2022 6-8pm	Whittier Community Center - Gymnasium 7630 Washington Av Whittier, CA 90602

Table 3 provides an overview of the total official submissions and total official comments received by method.

Source	Qty
Website	198
Public Hearings (oral comments)	33
Email	20
Events	7
Post Mail (Letters)	4
Public Hearings	5
Total Official Submissions	268
Total Official Comments	~900

Over the 60-day public comment period, 268 submissions were received, which encompassed approximately 900 comments. The comments were categorized into the following main topics:

- Alternatives - 12%
- Engineering/Design - 24%
- Environmental Topics (18 topics) - 50%
- Planning - 56%

From the comments received regarding the alternatives, 33% supported Alternative 1 Washington, 7% supported Alternative 2 IOS to Commerce, and 11% supported Alternative 3 IOS to Greenwood. The engineering/design comments were related to grade separation, station design, and parking facilities. Comments on environmental topics were in regard to transportation, noise, hazardous materials, public safety (emergency services), and mitigation measures. The planning issues included comments such as costs and funding, public safety at crossings, and impact to businesses.

The Washington Coalition, comprised of the five (5) incorporated cities along the corridor, collectively submitted a letter of support for the project. Letters were also received from key stakeholders such as Presbyterian Intercommunity Hospital (PIH), Caltrans, State Department of Fish and Wildlife, Los Angeles County (LAC) Department of Parks and Recreation, LAC Library, LAC Sanitation Districts, Los Angeles Unified School District (LAUSD) and California Public Utilities Commission (CPUC). The Environmental Protection Agency and US Army Corps of Engineers provided no comment at this time.

As a part of the public participation process, a petition was submitted with approximately 1600 (unverified) signatures endorsing the Transportation System Management Alternative (TSM). The TSM Alternative, which analyzes other transportation modes such as bus improvements and Intelligence Systems Management (ITS), was not studied in the Draft EIR because it is not required by CEQA and the Federal Transit Administration (FTA). As such, the Draft EIR is compliant with CEQA Guidelines Section 15126.6(a), describing a range of reasonable alternatives to the project. Further, the No Project Alternative includes Next Gen bus improvements as the baseline evaluation.

Letters from community groups in East Los Angeles submitted letters expressing concerns about the 60-day public comment period and Metro's actions to expedite the Draft EIR release. During the ongoing outreach efforts beginning in November 2021 and leading up to the release of the Draft EIR, the project team indicated the approximate timeframe the Draft EIR would be released. Section 15105 of CEQA Guidelines requires a Draft EIR to be available for public review no less than 30 days and no longer than 60 days except in unusual circumstances. Typically, Metro provides a 45-day comment period; however, due to the release of the draft EIR in the summer, staff proceeded with a 60-day comment period. In this case, there were no unusual circumstances that have not been experienced during the pandemic. Additionally, the project staff provided several methods for public participation and submission of public comments.

Early Intervention Team (EIT) Engagement

The project team is conducting review sessions with the EIT to engage leadership across the agency as this project reaches a critical stage (i.e., selection of the LPA). The EIT was established in July 2022 to identify and implement strategies to improve successful delivery of projects with a focus on cost control and cost containment that addresses full lifecycle needs. The EIT review engages the full Metro team in identifying specific project risks and mitigation opportunities relevant to this phase of the project, including assessment of project delivery method options for future project phases.

Cost Estimates

At the February Board meeting, the project cost estimates for conceptual design were presented as follows:

Preliminary Cost Estimates (15% design)	**Range** ($2021)
Alternative 1 Washington	$6.1B - $6.5B
Alternative 2 Commerce (Commerce MSF)	$4.5 - $5B
Alternative 3 Greenwood (Commerce MSF or Montebello MSF)	$5.1B - $5.3B
(2021$)	

These estimates were based on a conceptual level of design using a parametric model that stems from prices similar to other projects. For the planning phase, this high level of cost estimating is appropriate for screening alternatives. As the project continues to advance, the project team has been working closely with Program Management's Cost Estimating staff to complete an Independent Cost Estimate (ICE) update. This updated ICE includes several cost factors that were not included in the February estimate, including (1)the mid-point of construction , (2) design and MSF options that were yet to be determined in February, and (3) specifics of the advanced conceptual engineering plans. This exercise produces a cost estimate with greater detail and accuracy for the purposes of establishing budgets, mitigating risks, and supporting the procurement process in the next phases of the project. Critical cost considerations included in the ICE include the following:

- **Contingencies:**
  - **Allocated contingency** (design contingency): Risk based cost estimates associated with further refinement of design since details are not complete. As the level of design increases, contingency decreases. Allocated contingency was recalculated consistent with calculations on other new projects, and taking into consideration FTA

requirements.
    - **Unallocated contingency** (construction contingency): Estimate of costs associated with unforeseen conditions during the construction phase such as unknown site conditions, schedule delays, trade coordination.

- **Escalation** - reflects uncertain changes in technical, economic, and market conditions over time, such as cost of labor, equipment, and material due to continuing price changes over time. Escalation was estimated at 3.5% per year, calculated to the mid-point of construction.

The table below summarizes the results of the ICE, specifically incorporating added contingencies, escalation, and the application of an accuracy range.

Independent Cost Estimate Breakdown - 15% design Alternative 1 Washington Alternative	**Alternative 1 Washington**	**Alternative 3 IOS Greenwood**
Base Alternative (Guideway/tracks, stations, support facilities, systems)	$4.951B	$4.000B
Allocated Contingency	$1.672B	$1.359B
Unallocated Contingency	$662M	$537M
Sub Total (2022$)	**$7.285B**	**$5.896B**
Escalation	$2.884B (2032$)	$2.006B (2031$)
Total Cost Estimate	**$10.169B**	**$7.902B**

(Estimate as of November 10, 2022)

Although cost contingency percentages are standardized by cost category, there are differences between Alternative 1 and Alternative 3 based upon the project scope for each alternative. Allocated contingencies are percentages applied to standard cost categories for professional services, construction, real estate, vehicles, etc. Depending on the high-risk project element, the percentages can range from 16% to 50%. Alternative 1 considers project elements such as the bridge crossings at Rio Hondo and San Gabriel and the under-crossing at the I-605. These items are not present under Alternative 3. Therefore, contingencies for Alternative 1 are higher. Escalation is also higher for Alternative 1 because it has a longer construction duration compared to Alternative 3, which is a shorter alignment that assumes a shorter construction duration.

Due to the potential volatility of project costs that are unknown in the early phases of design, the team has applied an accuracy estimation with an upper bound (+30%) in accordance with industry best practices developed by the Association for Advancement of Cost Engineering (AACE). This is also consistent with the Board directive to provide cost forecasts in ranges for planning phase projects to reflect uncertainty in earlier project delivery phases. These factors result in an updated project forecast range of $7.9B to $10.3B for the Alternative 3 IOS Greenwood, inclusive of the current construction market escalation costs.

Funding Plan

Due to existing funding shortfalls, the full project approved under CEQA will be developed in segments. A funding plan for the Greenwood segment is presented in the following table and is

comprised of local sales tax and state and federal grant funding that is yet-to-be secured. Funding for the project may be available from new state and federal sources that have become available over recent years, as well as existing sources that may become available to Metro in the future. Local tradeoffs (i.e., transfer of funds) from other projects and programs are also included.

New federal funding related to the Infrastructure Investment and Jobs Act and new state funding from the state budget surplus that is designated for rail and transit may be available, and Metro will seek funding from these sources to fund the LPA. Metro will also seek funding from existing state grant programs created by Senate Bill 1 (SB-1) for a significant portion of the funding need. The transfer of existing local sales tax funds may also be required, given the risk that the amount of funding needed cannot be met with federal and state grants. This can happen if grant awards are not successful or are less than requested.

Funding Plan for IOS-3

Uses	IOS Greenwood
Total, Uses	$7.9

Sources - Secured	
Other Local (Sales Tax, 3% Contribution)	$0.5
Measure R	$1.3
Measure M	$1.6
Sources - Yet-To-Be-Secured	
Local (Sales Tax, 3% Contribution)	0.4
State (Cap/Trade, SB-1 Surplus)	1.8
Federal (IIJA/BIL)	2.4
Total, Sources	$7.9

Costs in year of expenditure dollars, in billions.

The funding plan for the remaining project to Whittier includes additional yet-to-be-secured federal, state, and local funding. The plan to Whittier assumes the existing federal Capital Investment Grants and state SB-1 grant programs will be functioning and potential funding sources for the completion of the project when additional funding is available from these programs over time after funding the LPA. We will target moving forward with the Whittier segment in 2035 after completing the LPA when additional yet-to-be secured funding is expected to be available. The exact timing will depend on the success in getting needed local, state, and federal funding. The local funding requires prioritizing this segment of the Project. Our success in obtaining state and federal funding will depend on the availability of these funds and the relative competitiveness of the project.

LPA Selection and Recommendation

Per CEQA, a LPA needs to be selected by the Board to advance the selected alternative into the Final EIR. Should the Board approve the staff recommendation, the selected LPA and full alignment will be environmentally cleared through CEQA, making the project shovel ready and competitive for funding. All build alternatives have been studied extensively through the Draft EIR, engineering

design, and technical studies. Metro has also conducted ongoing communications with stakeholders, corridor cities, and unincorporated Los Angeles County to provide updates on significant milestones of the project. The project team also held meetings in November 2021 to introduce to the public the design options: the Atlantic/Pomona open-air station concept and the at-grade section in Montebello. June 2022 meetings introduced the specific locations of the MSF locations. Most recently, staff hosted a meeting on November 9, 2022, to introduce the draft LPA and updated cost estimates.

Understanding that Metro would need to build the project in phases because of funding shortfalls, it is recommended that Alternative 3 IOS to Greenwood (Atlantic/Pomona Station to Greenwood Station) be selected as the LPA with the open underground station at the Atlantic/Pomona station, at-grade guideway in Montebello including the at-grade Greenwood station and the Montebello MSF site option. Furthermore, Alternative 3 IOS to Greenwood is identified as the environmentally superior alternative.

Additionally, the FTA prefers a project with a known timeline and with local funding commitment. Although the Board may select LPA at any time; however, a committed funding plan is important for FTA Full Funding Grant for the initial segment. ~~Based on the funding available in 2029 for the project per Measure M of $4.4 billion (2029$), there is a funding short fall of $3.5 billion for the recommended LPA compared to the full alignment of $5.7B.~~ Based on the secured funding for the project, there is yet-to-be-secured funding of $4.6 billion for the recommended LPA compared to the full alignment of $6.8 billion. Therefore, it is recommended that LPA proceed into the NEPA process to seek federal funding for the highest cost project elements, such as the underground segment and MSF.

The Metro Board's approval of environmentally clearing through CEQA the full project alignment to Whittier with a terminus Lambert Station represents the commitment of the eventual buildout of this Project. This project will address regional mobility, equity, and environmental and economic benefits for the communities along the corridor.

Title VI Maintenance Storage Facilities Analysis

The Title VI Service Equity Analysis is to ensure that the proposed MSF locations are selected per Metro's Title VI Program and in compliance with Title VI of the Civil Rights Act of 1964. The analysis determined whether the introduction of the Eastside Transit Corridor Phase 2 project will have a disparate impact on the minority population or a disproportionate burden on the low-income population. A record of the Board's action on the Title VI findings will be forwarded to the FTA. The findings concluded that neither the Commerce MSF nor the Montebello MSF has a disparate impact, with the absolute and relative differences both being negative numbers that are below the thresholds of the absolute and relative difference. The Commerce MSF and Montebello MSF sites would both have a disparate impact on Limited English Proficiency populations. The Commerce site has the larger absolute difference at 60.3% and the Montebello site at 53.4%

Contract Modification

Per a Board request (File #2022-0274) at the February 2022 meeting, staff was directed to reinitiate the NEPA process because of the recent influx of federal opportunities the project can compete for nationally. Additionally, the Board requested to advance engineering activities to streamline the project into the most efficient project delivery method. To reinitiate the NEPA process, a contract

modification is needed to the existing contract for professional environmental services, which is Contract Modification No. 22, Contract No. PS4320-2003, with CDM Smith/AECOM Joint Venture (JV). The contract modification for engineering services is anticipated to be presented at the January Board meeting.

Risks
Delaying the selection of an LPA will delay the start of the Final EIR and impact the overall Project schedule. This would also delay the NEPA process, leading to a loss of opportunities to seek federal funding. Moreover, not pursuing engineering activities could increase risks for the project as it advances to project delivery.

Equity Platform

The Project will benefit communities along the eastern portion of Los Angeles County with a high-quality, reliable light rail system. The full project alignment traverses six (6) Equity-Focused Communities (EFC), and there are 2,281 transit-dependent households along the project alignment and 1,828 households along the LPA. When the eventual build-out of the project occurs, communities along the corridor will have access to the Metro regional network and to activity centers and job opportunities along the corridor that include but are not limited to Whittier College, East Los Angeles College, Citadel Outlets, the Historic Whittier Boulevard Shopping, and Presbyterian Intercommunity Hospital. The Project and LPA will fulfill a gap in high-quality transit services that currently exist in the eastern portion of Los Angeles County. The LPA recommendation, should the Metro Board approve Alternative 3 IOS Greenwood, would serve the highest concentration of EFCs in East Los Angeles and the cities of Commerce and Montebello.

Upon the selection of the LPA, several planning activities will be initiated, including First Last Mile (FLM) planning and TOC Implementation Plans. The project team anticipates re-engaging the CBO Roundtable for these activities and possibly including more CBOs to conduct FLM planning, walk audits, outreach, and other activities. The TOC Corridor Baseline Assessment process will also begin, which supports corridor communities by providing TOC Grant Writing, Baseline Assessments, and Technical Assistance Program around affordable housing production and community stabilization. The Baseline will be prepared in collaboration with jurisdictions along the corridor and with deep stakeholder engagement throughout the process. The Baseline Assessments will be a resource of information for municipalities and community members that will highlight positive opportunities to leverage the transit infrastructure investments for equitable TOCs and identify potential risks and vulnerabilities. The Baseline Assessment is critical at this stage to begin station planning efforts early to ensure equitable development and prevent unintended consequences such as displacement and gentrification. Several cities along the corridor are updating their long-range plans; by including these resources and tools, vulnerable communities along the corridor could experience a positive outcome.

Extensive outreach efforts will continue along the corridor to engage project stakeholders through various outreach methods through the Final EIR and upcoming activities. The project team will

continue collaborating with the CBO Roundtable to discuss project milestones and enhance outreach methods.

DETERMINATION OF SAFETY IMPACT

Approval of the Draft EIR and selection of an LPA will not impact the safety of Metro's customers or employees.

FINANCIAL IMPACT

The FY 2022-23 budget contains approximately $8M in Cost Center 4310 (Mobility Corridors), Project 460232 for professional services. Since this is a multi-year contract modification, the Cost Center Manager and Chief Planning Officer will be responsible for budgeting in future years.

Impact to Budget
Funding for this action comes from Measure R 35% Transit Capital. These funds are not eligible for bus or rail operating expenses.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project supports the following strategic plan goals identified in Vision 2028: Goal 1: Provide high-quality mobility options that enable people to spend less time traveling, Goal 3: Enhance communities and lives through mobility and access to opportunity, and Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

ALTERNATIVES CONSIDERED

The Board may decide not to approve the recommended LPA described in this report. This is not recommended as it may delay the project delivery and would risk the ability to meet the Measure M Expenditure Plan schedule, including both the Project groundbreaking and opening dates.

NEXT STEPS

Should the Board select the LPA, staff will initiate work on the Project's Final EIR. The full project alignment to Whittier will also be included in the Final EIR. After completion of the Final EIR, staff anticipates returning to the Board in Summer/Fall 2023 for certification of the Final EIR.

Upon Board approval, staff will execute Modification No. 22 to Contract No. PS4320-2003 with CDM Smith/AECOM, a Joint Venture, to initiate the NEPA process for the project.

ATTACHMENTS

Attachment A - Draft Environmental Impact Report Executive Summary
Attachment B - Eastside Transit Corridor Phase 2 Project Map
Attachment C - Eastside Transit Corridor Phase 2 Title VI Equity Analysis: Siting and Location of

Maintenance and Storage Facility Sites
Attachment D - Procurement Summary
Attachment E - Contract Modification/Change Order Log
Attachment F - DEOD Summary

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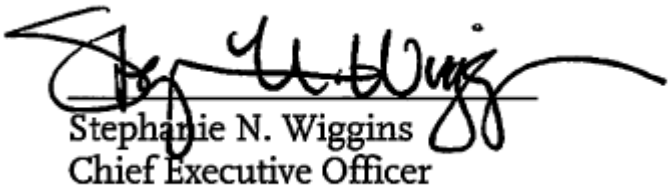

Los Angeles County
Metropolitan Transportation Authority

Executive Summary

GOLD LINE EASTSIDE TRANSIT CORRIDOR PHASE 2

Metro

Prepared for
Los Angeles Metropolitan
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June 2022

Executive Summary

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Executive Summary

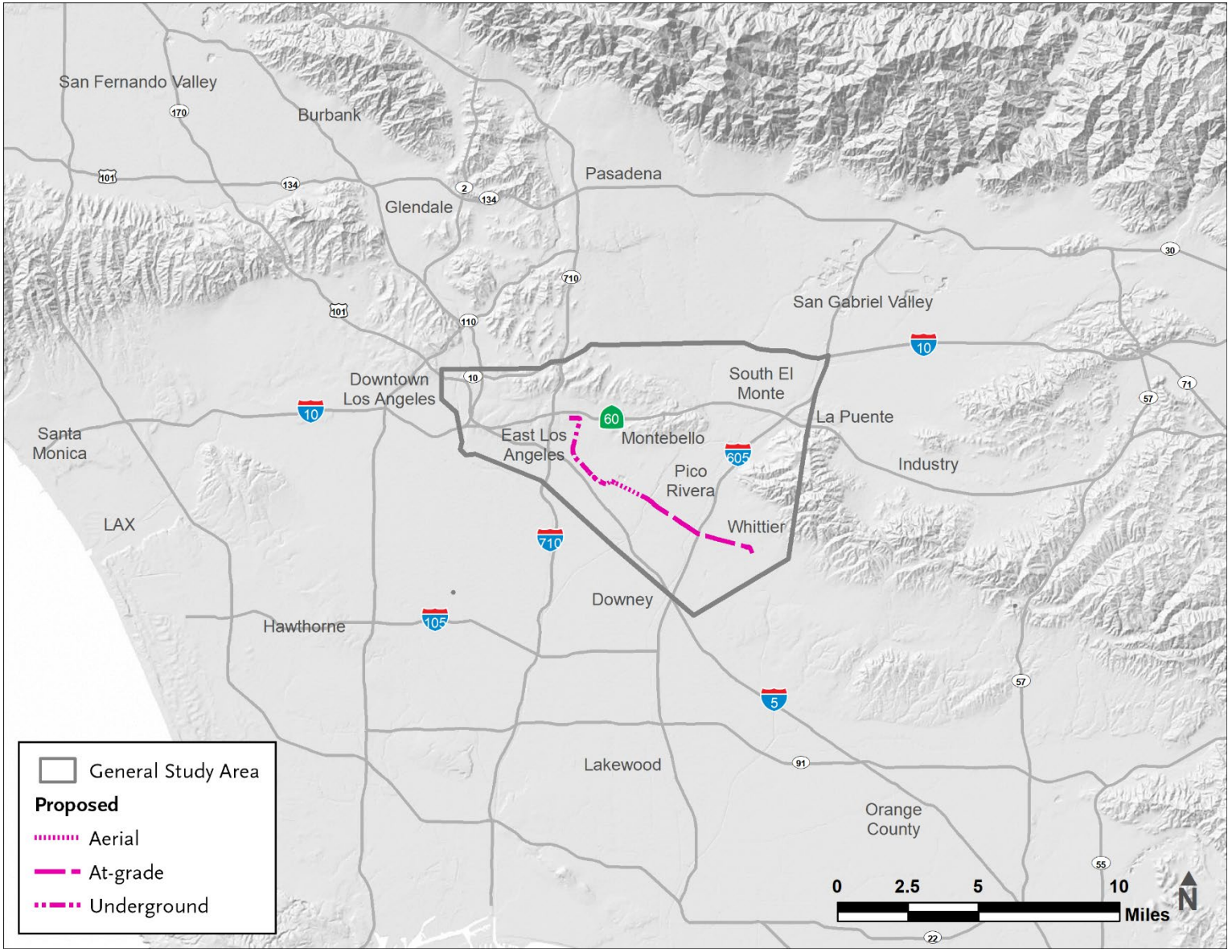
ES.1 Introduction

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 Executive Summary is an overview of the main elements of the document, including: purpose and process of the Recirculated Draft Environmental Impact Report (Draft EIR); project history, public review, and project objectives; descriptions of the alternatives considered; summary of the environmental analysis and comparison of alternatives; and areas of controversy and issues to be resolved. More detailed discussion, analysis, and information is contained within the Recirculated Draft EIR and the Appendices.

The Project would extend the 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 to the city of Whittier within the Gateway Cities subregion of Los Angeles County. It would extend the existing Metro L (Gold) Line approximately 3.2 to 9.0 miles and include maintenance and storage facility (MSF) site options and design options, depending on the Build Alternative. A diverse mix of land uses are located along the alignment, including single- and multi-family residences, commercial and retail uses, industrial development, parks and recreational, health and medical uses, educational institutions, and vacant land. The Project would traverse densely populated, low-income, and heavily transit-dependent communities with major activity centers.

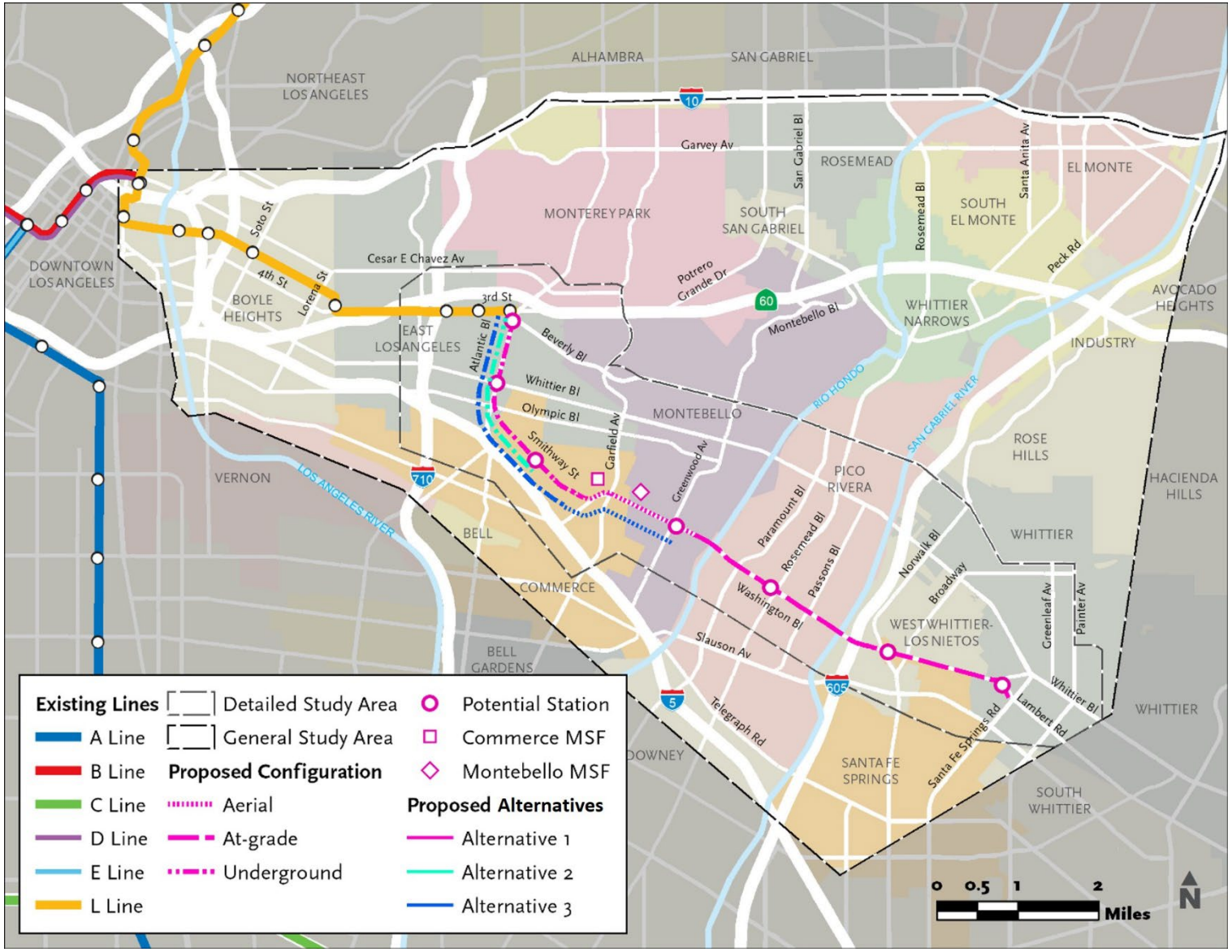
For purposes of describing the Project, two study areas have been defined. The general study area (GSA) is regional in scope and scale and consists of a wider area that is expected to be served by the Project. The GSA currently has limited transportation options, which contributes to long travel delays connecting to and from downtown Los Angeles and would be served by improved access to LRT. The detailed study area (DSA) encompasses the local area within approximately two miles from the Project alignment. **Figure ES.1** shows the Project's regional location and **Figure ES.2** shows the Project's GSA and DSA.

Below is a summary of the Recirculated Draft EIR, highlighting the Project alternatives considered and their impact findings and conclusions.



Source: Metro; CDM Smith/AECOM JV, 2022.

Figure ES.1. Regional Location Map



Source: Metro; CDM Smith/AECOM JV, 2022.

Figure ES.2. General Study Area and Detailed Study Area

ES.2 Purpose of the Recirculated Draft Environmental Impact Report

This Recirculated Draft EIR satisfies the requirements of the California Environmental Quality Act (CEQA)[1] and CEQA Guidelines[2] to inform decision-makers and the public about the potential significant environmental impacts of the Project; ways to avoid significant effects through a review of Build Alternatives, MSF site options, and design options; required mitigation measures that would minimize or reduce impacts to less than significant levels; and impacts that would be significant and avoidable. As the lead public agency, Metro has the principal responsibility for approving the Project and will use this Recirculated Draft EIR to consider the environmental consequences of the Project. Lead public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts of a project, where feasible. In approving the Project, Metro will balance the Project's environmental, economic, social, and transportation benefits compared to its significant and unavoidable impact on the environment. As such, this Recirculated Draft EIR is an informational public document to be used to analyze the significant environmental effects of the Project, identify alternatives, and disclose potential ways to reduce or avoid the possible change to the environment. Significant effects on the environment are defined as a substantial adverse change in the physical conditions which exist in the area affected by the Project.[3]

ES.2.1 Environmental Review Process

This document is a recirculation of an earlier Draft EIR/Environmental Impact Statement (EIS) that was issued for public review on August 22, 2014. Per CEQA Guidelines,[4] Metro is required to recirculate when significant new information is added to the EIR after the public review notice was given, such as changes to either the Project or environmental setting. Since August 2014, the project definition has been refined; as such, on May 31, 2019, a Notice of Preparation (NOP) and Notice of Intent (NOI) of a Recirculated Draft EIR/EIS was issued.

The Project's environmental review process began in January 2009, when the Metro Board of Directors (Metro Board) approved the Project's Alternatives Analysis (AA) which identified two build alternatives for environmental review. The Project was identified in Metro's 2009 and 2020 Long Range Transportation Plan (LRTP) and is a transit project funded by local tax Measure R (approved by voters in November 2008) and Measure M (approved by voters in November 2016).

A NOP and NOI to prepare a Draft EIR/EIRS was originally issued in 2010 with two build alternatives – State Route 60 (SR 60) and Washington Boulevard, as well as a No Build and Transportation Systems Management (TSM) Alternative. To address initial environmental concerns, outreach efforts to agencies affiliated with the Project were conducted, including agency scoping meetings, participation in a Technical Advisory Committee, and 37 individual agency coordination meetings. As part of the outreach program during the AA and Draft EIS/EIR phases, Metro also held over 300 meetings with a wide array of stakeholder groups.

1 Per Public Resources Code Section 21000, et seq.
2 California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq. (CEQA Guidelines).
3 California Code of Regulations, Title 14, Chapter 3, Section 15002(g).
4 California Code of Regulations, Title 14, Chapter 3, Section 15088.5(a).

The Draft EIR/EIS was released on August 22, 2014, for a public comment period of 60 days. Based on the volume and scope of comments received on the Draft EIR/EIS, in November 2014, the Metro Board determined that additional technical investigation would be needed to address major areas of concern raised on both build alternatives. As a result, three north-south connection options for the Washington Boulevard Alternative were developed and shared at community meetings held in March 2016, June 2016, and February 2017 and extensive community feedback was collected and assessed. Based on the technical analysis, design refinements and feedback received from the community and key stakeholders, the Atlantic Boulevard below-grade option was recommended for Metro Board approval as part of a refined Washington Boulevard Alternative.

In May 2017, the Metro Board advanced the No Build Alternative and three refined build alternatives for environmental review: SR 60 Alternative, Washington Boulevard Alternative, and a Combined Alternative (defined as full build out of both the SR 60 and Washington Boulevard Alternatives). The Federal Transit Administration (FTA) published a Notice of Intent (NOI) in the Federal Register to initiate the EIS process (pursuant to the National Environmental Policy Act (NEPA)), and Metro issued NOP (pursuant to CEQA) on May 31, 2019. The NOI/NOP informed the public of the Build Alternatives, provided notice of a 45-day scoping period, and issued a notice of intent to release a Supplemental/Recirculated Draft EIS/EIR. The NOI/NOP also described consideration of adopting a Locally Preferred Alternative (LPA) by the Metro Board based on the findings of the Supplemental/Recirculated Draft EIS/EIR.

Issues and 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. Conflicts with future improvements along the SR 60 freeway and environmental challenges associated with running parallel or in an aerial configuration along the SR 60 corridor created engineering and environmental challenges. The Combined Alternative compounded these technical challenges as it required the addition of an underground wye junction at the current terminus of the Metro L (Gold) Line.

In February 2020, the Metro Board approved withdrawal of the SR 60 and Combined Alternatives and the discontinuation of the NEPA analysis. Following this Metro Board action, FTA and cooperating agencies were notified of the decision to discontinue the NEPA environmental study (Supplemental Draft EIS) and advance a Recirculated Draft EIR pursuant to CEQA.

Consistent with CEQA Guidelines,[5] Metro requests public and agency reviewers submit comments on this Recirculated Draft EIR during a 60-day public comment period. This comment period includes public hearings throughout the DSA to present findings of the Draft EIR and solicit public comments on the document. Opportunities for the public to provide comments and participate in public hearings are identified in Chapter 6, Public Outreach.

After circulation of the Recirculated Draft EIR and review of public and agency comments, the Metro Board can consider and select an LPA. Public and agency comments received on the Recirculated Draft EIR will be considered as part of the LPA selection process. If an LPA is selected by the Metro Board, Metro will then prepare a Final EIR including written responses to public and agency comments. The Metro Board may then adopt the findings of the Project's environmental effects after implementation of mitigation measures and statement of overriding considerations, certify the Final EIR, and approve the Project.

5 California Code of Regulations, Title 14, Chapter 3, Section 15088.5(f)(1).

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 L (Gold) 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 L (Gold) 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 LRTP 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 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 Alternatives Considered/Project Description

Metro has identified three Build Alternatives as well as a No Project Alternative that are considered and included in this Recirculated Draft EIR. The Build Alternatives include Alternative 1 Washington (Atlantic Boulevard to Lambert Station), Alternative 2 (Atlantic to Commerce/Citadel Initial Operating Segment [IOS]), and Alternative 3 (Atlantic to Greenwood IOS). The three Build Alternatives have the same guideway alignment east of the existing terminus at Atlantic Station but vary in length. Alternative 1 has the longest alignment at approximately 9.0 miles with seven stations (one relocated/reconfigured and six new), two maintenance and storage facility (MSF) site options and would terminate at Lambert station on Lambert Road in the city of Whittier. Alternative 2 is approximately 3.2 miles in length with three stations, one MSF site option, and would terminate at the Commerce/Citadel station in the city of Commerce, with non-revenue lead tracks extending further

into the city of Commerce to connect to the Commerce MSF site option. Alternative 3 is approximately 4.6 miles in length with four stations, two MSF site options, and would terminate at Greenwood station in the city of Montebello.

There are also design options under consideration for each of the three Build Alternatives that consist of a variation in the design of the relocated/reconfigured Atlantic Station (applicable to Alternatives 1, 2, and 3) and a variation in the station and alignment profile in the city of Montebello (applicable to Alternatives 1 and 3). Construction and operation of one or both design options are considered and evaluated for Alternative 1 and Alternative 3.

To differentiate the impacts evaluation of a Build Alternative with or without the design option(s) incorporated, a Build Alternative without the design option(s) is referred to as the "base Alternative" (i.e., base Alternative 1). A Build Alternative with a design option incorporated is referred to by using the design option name (e.g., Alternative 1 with the Atlantic/Pomona Station Option and/or the Montebello At-Grade Option). A summary of the three Build Alternatives and design options are provided below.

ES.3.1 Build Alternatives

Three Build Alternatives, two design options, and two MSF site options evaluated in this Draft EIR include:

- Alternative 1: Washington (Atlantic Boulevard to Lambert station)
  - Design Option 1: Atlantic/Pomona Station Option
  - Design Option 2: Montebello At-Grade Option
  - Commerce MSF site option
  - Montebello MSF site option
- Alternative 2: Atlantic to Commerce/Citadel IOS
  - Design Option 1: Atlantic/Pomona Station Option
  - Commerce MSF site option
- Alternative 3: Atlantic to Greenwood IOS
  - Design Option 1: Atlantic/Pomona Station Option
  - Design Option 2: Montebello At-Grade Option
  - Commerce MSF site option
  - Montebello MSF site option

Table ES-1 summarizes the components for each Build Alternative.

Table ES-1. Summary of Build Alternatives Components

Components	Build Alternatives		
	Alternative 1 Washington	Alternative 2 Atlantic to Commerce/Citadel IOS	Alternative 3 Atlantic to Greenwood IOS
Alignment length	9 miles	3.2 miles	4.6 miles
Length of underground, aerial, and at-grade2	**Base Alternative[1]**		
	3 miles underground; 1.5 miles aerial; 4.5 miles at-grade[3]	3 miles underground 0.1 miles aerial; 0.1 miles at-grade[3]	3 miles underground; 1.5 miles aerial; 0.1 miles at-grade[3]
	Atlantic/Pomona Station Option		
	Approximately 50 feet of additional underground alignment	Approximately 50 feet of additional underground alignment	Approximately 50 feet of additional underground alignment
	Montebello At-Grade Option		
	3 miles underground; 0.5 miles aerial; 5.5 miles at-grade	NA	3 miles underground; 0.5 miles aerial; 1.1 miles at-grade
Station configuration	**Base Alternative1**		
	7 stations: 3 underground (1 relocated/reconfigured); 1 aerial; 3 at-grade	3 stations: 3 underground (1 relocated/reconfigured)	4 stations: 3 underground (1 relocated/reconfigured); 1 aerial
	Montebello At-Grade Option		
	4 at-grade; 0 aerial	NA	1 at-grade; 0 aerial
Major (signalized) at-grade intersection crossings	**Base Alternative1**		
	11	0	0
	Montebello At-Grade Option		
	15	NA	4
Major aerial crossings	**Base Alternative**		
	6	0	6
	Montebello At-Grade Option		
	2	NA	
Freight rail crossings	5	4	5
Freeway crossings	1 undercrossing at I-605	0	0
River crossings5	2	0	0
TPSS facilities6,	8	3	4
MSF[6] site options	2	1	2

Notes:
1 The Base Alternative is the Build Alternative without the implementation of any design options (Atlantic/Pomona Station Option and/or Montebello At-Grade Option). Design Option are listed in the table if they differ from the Base Alternative.
2 Total lengths do not include MSF lead track
3 The at-grade length includes 0.05-mile of transition from at-grade to underground.
4 Freight rail crossings would be grade separated and would not occur in the at-grade configuration.
5 The Base Alternative with design options would have the same number of river crossings.
6 The Base Alternative with design options would have the same number of TPSS facilities.
Key:
TPSS = Traction Power Substation; MSF = Maintenance and Storage Facility; O&M = Operations and Maintenance; NA = Not Applicable

The Build Alternatives would operate approximately 21.5 hours daily, seven days per week, from 4:00 am to 1:30 am. Construction activities are anticipated to occur over the course of approximately 60 months to 84. Revenue service is anticipated to begin in 2035, but availability and source of funding may change and allow construction to initiate sooner.

Figure ES.3, **Figure ES.4**, and **Figure ES.5** shows the alignments and station locations for the Build Alternatives

ES.3.2 No Project Alternative

Pursuant to CEQA Guidelines,[6] 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.4 Environmental Analysis

The Recirculated Draft 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 Project and consists of design features, best management practices, or other measures required by law and/or permit approvals. Where relevant, these are included as part of the Project alternatives, MSF site options, and design options. Mitigation measures are the additional actions, not otherwise part of the Project 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 Project alternatives, MSF site options, and design options.

Table ES-2 presents a summary of impacts by environmental resources and **Table ES-3** identifies the environmental impacts, required mitigation measures, and impact remaining after mitigation (as applicable) for the Project alternatives.

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

Source: Metro; CDM Smith/AECOM JV, 2022.

Figure ES.3. Alternative 1 Washington

Source: Metro; CDM Smith/AECOM JV, 2022.

Figure ES.4. Alternative 2 Atlantic to Commerce/Citadel IOS

Source: Metro; CDM Smith/AECOM JV, 2022.

Figure ES.5. Alternative 3 Atlantic to Greenwood IOS

Table ES-2. 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	NI	NI	NI	NI	SU	NI	NI	NI
Alt 1[1,2]	Commerce MSF	LTS	LTS	LTSM	SU	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS
	Montebello MSF	LTS	LTS	LTSM	LTSM	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS
Alt 2[1]	Commerce MSF[1]	LTS	LTS	LTSM	SU	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS
Alt 3[1,2]	Commerce MSF	LTS	LTS	LTSM	SU	LTS	SU	LTS	LTSM	LTSM	LTS	LTSM	LTS	LTS	LTSM	LTSM	LTS	LTS
	Montebello MSF	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 The Atlantic/Pomona Station design option would be applied to all three Build Alternatives. In comparison with Base Alternatives, this design option would require less cut-and-cover construction which may reduce the severity of significant geological and cultural resources impacts during construction. However, overall findings of significant and unavoidable impacts for would still apply for all Build Alternatives with this design option.

2 The Montebello At-Grade design option would be applied as part of Alternative 1 and Alternative 3. In comparison with the Base Alternatives, this design option includes an at-grade configuration east of Garfield Avenue along Washington Boulevard which would avoid property acquisitions and reduce the severity of significant geological and cultural resources impacts during construction. However, additional transportation mitigation would need to be applied for the at-grade configuration between Garfield Avenue and Montebello Boulevard and the overall findings of significant and unavoidable impacts for Alternative 1 and 3 would still remain with this design option.

Key:

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

Table ES-3. 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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	AES-2	Scenic Highways	Alt 1:	No Impact	None	No Impact
			Alt 2:	No Impact	None	No Impact
			Alt 3:	No Impact	None	No Impact
	AES-3	Visual Character	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	AES-4	Light and Glare	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
Air Quality	AQ-1	Air Quality Plan	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	AQ-2	Regional Criteria Pollutant Emissions	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 3:	Less Than Significant	None	Less Than Significant
	AQ-3	Localized Pollutant Concentrations	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	AQ-4	Other Emissions	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	HR-1	Human Health Risks	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	Potentially Significant	• MM BIO-4 (Bird Nesting Survey)	Less Than Significant
			Alt 3:	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 (Equipment Cleaning to reduce spread of Invasive Species) • MM BIO-6 (Tire Cleaning to reduce spread of Invasive Species)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 2:	Potentially Significant	• MM BIO-5 (Equipment Cleaning to reduce spread of Invasive Species) • MM BIO-6 (Tire Cleaning to reduce spread of Invasive Species)	Less Than Significant
			Alt 3:	Potentially Significant	• MM BIO-5 (Equipment Cleaning to reduce spread of Invasive Species) • MM BIO-6 (Tire Cleaning to reduce spread of Invasive Species)	Less Than Significant
	BIO-3	Movement of Fish and Wildlife Species	Alt 1:	Less than Significant	None	Less Than Significant
			Alt 2:	No Impact	None	No Impact
			Alt 3:	No Impact	None	No Impact
	BIO-4	Policies/ Ordinances	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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-2 (Historical Resource Archival Documentation for the Pacific Metals Company Building) • MM CUL-3 (Interpretive Program for the Pacific Metals Company Building) • MM CUL-4 (Protection Measures for Dal Rae Restaurant Sign) • MM CUL-5 (Historical Resource Archival Documentation for the Vail Field Industrial Addition) • MM CUL-6(Interpretive Program for the Vail Field Industrial Addition)	Less Than Significant (If Montebello MSF Site Option is selected) or Significant Unavoidable (If Commerce MSF Site Option is selected)

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 2:	Potentially Significant	• MM CUL-1 (Protection Measures for the Golden Gate Theatre) • MM CUL-5 (Historical Resource Archival Documentation for the Vail Field Industrial Addition) • MM CUL-6 (Interpretive Program for the Vail Field Industrial Addition)	Significant Unavoidable (Commerce MSF Site Option would be selected)
			Alt 3:	Potentially Significant	• MM CUL-1 (Protection Measures for the Golden Gate Theatre) • MM CUL-2 (Historical Resource Archival Documentation for the Pacific Metals Company Building) • MM CUL-3 (Interpretive Program for the Pacific Metals Company Building) • MM CUL-5 (Historical Resource Archival Documentation for the Vail Field Industrial Addition) • MM CUL-6 (Interpretive Program for the Vail Field Industrial Addition)	Less Than Significant (If Montebello MSF Site Option is selected) or Significant Unavoidable (If Commerce MSF Site Option is selected)
	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
			Alt 2:	Potentially Significant	• MM CUL-8 (Unknown Archaeological Resources)	Less Than Significant
			Alt 3:	Potentially Significant	• MM CUL-8 (Unknown Archaeological Resources)	Less Than Significant
	CUL-3	Disturbance of Human Remains	Alt 1:	Potentially Significant	• MM CUL-9 (Unanticipated Discovery of Human Remains)	Less Than Significant
			Alt 2:	Potentially Significant	• MM CUL-9 (Unanticipated Discovery of Human Remains)	Less Than Significant
			Alt 3:	Potentially Significant	• MM CUL-9 (Unanticipated Discovery of Human Remains)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Energy	ENG-1	Energy Consumption	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	ENG-2	Energy Plans	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	GEO-2	Soil Erosion	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	GEO-3	Soil Stability	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	GEO-4	Expansive Soils	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 3:	Less Than Significant	None	Less Than Significant
	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
			Alt 2:	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
			Alt 3:	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

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
Greenhouse Gas Emissions	GHG-1	Emission Generation	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	GHG-2	Conflicts	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	HAZ-2	Release of Hazardous Materials	Alt 1:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 2:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
			Alt 3:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • 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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	HAZ-4	Hazardous Materials Sites (Government Code Section 65962.5)	Alt 1:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
			Alt 2:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
	HAZ-4	Hazardous Materials Sites (Government Code Section 65962.5)	Alt 3:	Potentially Significant	• MM HAZ-1 (Phase II Environmental Site Investigation) • MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials) • MM HAZ-4 (Worker Health and Safety Plan) • MM HAZ-5 (Hazardous Building Survey and Abatement)	Less Than Significant
	HAZ-5	Airport Land Use Plans	Alt 1:	No Impact	None	No Impact
			Alt 2:	No Impact	None	No Impact
			Alt 3:	No Impact	None	No Impact

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	HAZ-6	Emergency Response or Emergency Evacuation Plan	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	HAZ-7	Wildland Hazards	Alt 1:	No Impact	None	No Impact
			Alt 2:	No Impact	None	No Impact
			Alt 3:	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
			Alt 2:	Potentially Significant	• MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	HWQ-3(ii)	Surface Runoff	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	HWQ-3(iii)	Stormwater Drainage	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	No Impact	None	No Impact
			Alt 3:	No Impact	None	No Impact
	HWQ-4	Inundation	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	No Impact	None	No Impact
			Alt 3:	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

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 2:	Potentially Significant	• MM HAZ-2 (Soil and Groundwater Management Plan) • MM HAZ-3 (Contractor Specifications for Hazardous Materials)	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	LUP-2	Plan, Policy or Regulation	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck Removal Equipment) • MM NOI-10 (Tunneling Boring Machine Muck Removal Construction Working Hours) • 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	Alt 2:	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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck Removal Equipment) • MM NOI-10 (Tunneling Boring Machine Muck Removal Construction Working Hours) • 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	Alt 3:	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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck Removal Equipment) • MM NOI-10 (Tunneling Boring Machine Muck Removal Construction Working Hours) • 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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck 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
	NOI-2	Ground Borne Vibration	Alt 2:	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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck 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
	NOI-2	Ground Borne Vibration	Alt 3:	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 (Construction Working Hours) • MM NOI-8 (Public Notification of Construction Operations and Schedules) • MM NOI-9 (Tunneling Boring Machine Muck 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
Population and Housing	PPH-1	Unplanned Population Growth	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	PPH-2	Displacement	Alt 1:	No Impact	None	No Impact
			Alt 2:	No Impact	None	No Impact
			Alt 3:	No Impact	None	No Impact
Public Services and Recreation	PSR-1	Public Services	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
	PSR-2	Increased Recreation	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	PSR-3	New Recreation Facilities	Alt 1:	No Impact	None	No Impact
			Alt 2:	No Impact	None	No Impact
			Alt 3:	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
			Alt 2:	Potentially Significant	• MM TRA-1 (Traffic Management Plan)	Less Than Significant
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	TRA-3	Design Hazards or Incompatible Uses	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	TRA-4	Inadequate Emergency Access	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	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
			Alt 2:	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
			Alt 3:	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
			Alt 2:	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

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 3:	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
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	UTL-2	Water Supplies	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	UTL-3	Wastewater	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	UTL-4	Solid Waste	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant
	UTL-5	Regulations	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant

Environmental Topic	Impact Evaluated		Impact Before Mitigation		Mitigation Measures Needed	Impacts After Mitigation
			Alt 3:	Less Than Significant	None	Less Than Significant
Growth Inducing	GRW-1	Growth Inducing	Alt 1:	Less Than Significant	None	Less Than Significant
			Alt 2:	Less Than Significant	None	Less Than Significant
			Alt 3:	Less Than Significant	None	Less Than Significant

ES.4.1 Significant and Unavoidable Impacts

According to the environmental impact analysis, there are no feasible mitigation measures to reduce significant impacts on historical resources if the Commerce MSF is selected (Impact CUL-1) or paleontological resources (Impact GEO-5) to less than significant. 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 historical resources if the Commerce MSF is selected (Impact CUL-1) or paleontological resources (Impact GEO-5). As such, the construction of the Project would result in significant and unavoidable impacts related to Historical Resources if the Commerce MSF is selected (Impact CUL-1) and Paleontological Resources (Impact GEO-5) as discussed in Section 3.6, Cultural Resources, and Section 3.16, Geology, Soils, Seismicity & Paleontological Resources, of this Recirculated Draft EIR.

ES.5 Comparison of Alternatives

Table ES-4 provides a comparison of those resources that have significant and unavoidable impacts under one or more Alternatives and identifies the impact determination for each Alternative.

Table ES-4. Comparison of Impact Determinations by Alternative for Environmental Resources with Significant and Unavoidable Impacts

Alternative		Environment Resource with Significant and Unavoidable Impacts					
		Air Quality	Cultural Resources	Geology, Seismicity, Soils, and Paleontological Resources	Greenhouse Gas Emissions	Land Use	Transportation and Traffic
No Project Alternative		SU	NI	NI	SU	SU	SU
Alternative 1	Commerce MSF	LTS	SU	SU	LTS	LTS	LTSM
	Montebello MSF[1]	LTS	LTSM	SU	LTS	LTS	LTSM
Alternative 2	Commerce MSF	LTS	SU	SU	LTS	LTS	LTSM
Alternative 3	Commerce MSF	LTS	SU	SU	LTS	LTS	LTSM
	Montebello MSF[1]	LTS	LTSM	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 Alternative 2 with the Montebello MSF site option, 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.5.1 Environmentally Superior Alternative

Based the comparison of environmental analysis summarized above and described in detail in Chapter 5, Comparison of Alternatives, Alternative 3 with the Montebello MSF site option would be 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.

ES.6 Public Outreach

Metro has implemented a comprehensive outreach program for the Project, starting in 2007 with outreach meetings for the Alternatives Analysis (AA) and continuing through 2022 for the efforts related to this Recirculated Draft EIR. As part of this extensive outreach, Metro has informed elected officials, agency staff, community stakeholders, and the general public of the status of the Project, including progress of the environmental review process.

The Project's history includes the publications of the following documents: the 2009 AA (Attachment A of Appendix T), the 2014 Draft EIS/ EIR, and the 2017 Post Draft EIS/EIR Technical Study. In 2007, Metro began outreach for the Project, with community engagement representing an integral component of the environmental process for the published documents mentioned above. A summary of these efforts is discussed in this section and presented in more detail in Chapter 6, Public Outreach.

The scoping period during the preparation for the Draft EIS/EIR began with the publication of the Notice of Preparation/Notice of Intent on January 25, 2010 and continued through April 14, 2010. During the 80-day scoping period, Metro hosted a total of five scoping meetings, four public meetings and one agency meeting, between February 22 and 27, 2010. The meetings were attended by more than 300 people. In addition to the official scoping meetings, Metro also participated upon request in various city and stakeholder events to enhance the outreach effort and increase awareness during the scoping period. For a detailed list of the scoping meeting dates and times, please refer to Attachment A1 of Appendix S. In compliance with CEQA and NEPA, an NOA was released to notify the public regarding the availability the 2014 Draft EIS/EIR for its public review and comment. A 60-day public review period began on August 22, 2014 and ended on October 21, 2014.

Following the 2017 Post Draft EIS/EIR Technical Study, Metro re-initiated the CEQA and NEPA processes to further evaluate potential impacts associated with the refined Build Alternatives. In advance of the Public Scoping Meetings in Summer 2019, Metro offered a Community Update Meeting in East Los Angeles. One meeting was held in East Los Angeles Library on May 13, 2019 from 5:30 to 7:30 pm. The Community Update Meeting was attended by approximately 120 community members, including staff from Los Angeles County Supervisor Hilda Solis' office, community-based organization staff and members of the public.

ES.7 Areas of Controversy and Issues to Be Resolved

ES.7.1 Areas of Controversy

The following areas of controversy and concerns were identified based on public comments submitted during the scoping period and through ongoing stakeholder coordination:

- Impacts to businesses during construction
- Traffic impacts due to reduction of lanes on Washington Boulevard
- Impacts to parking and need for parking
- Noise levels during construction
- Safety for students at nearby schools
- Security at stations

ES.7.2 Issues to be Resolved

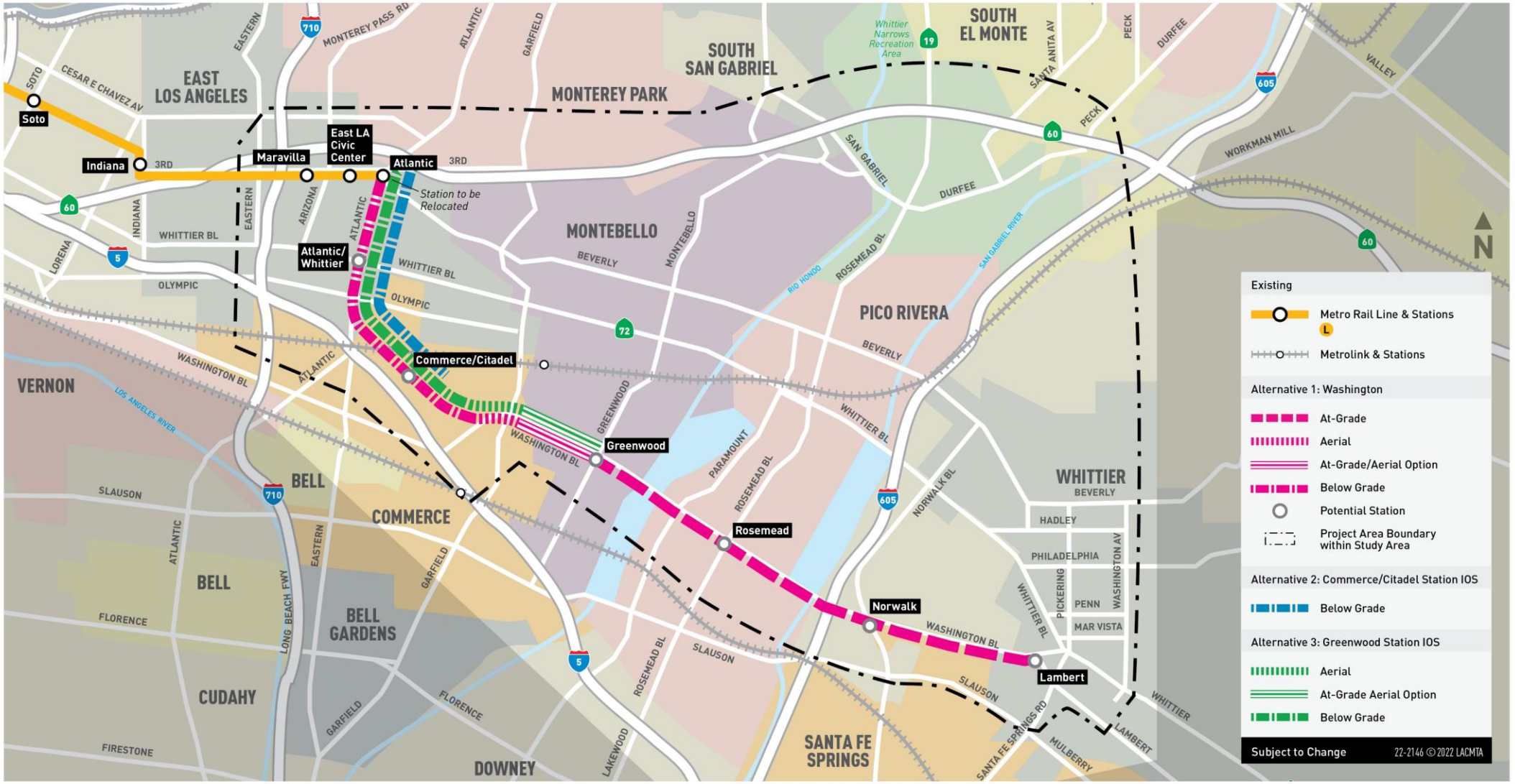
The following issues are to be resolved as the Project proceeds through the environmental process and stakeholder coordination:

- Selection of Maintenance and Storage Facility
- Selection of Design Options
- Selection of the LPA: The Metro Board will select an LPA after circulation of the Recirculated Draft EIR
- Funding Shortfall
- Design Refinements

Attachment B

Eastside Transit Corridor Phase 2

Project Alternatives



Metro

Attachment C

Eastside Phase 2 Transit Corridor

Title VI Maintenance Storage Facility Analysis

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Figures

1) Executive Summary

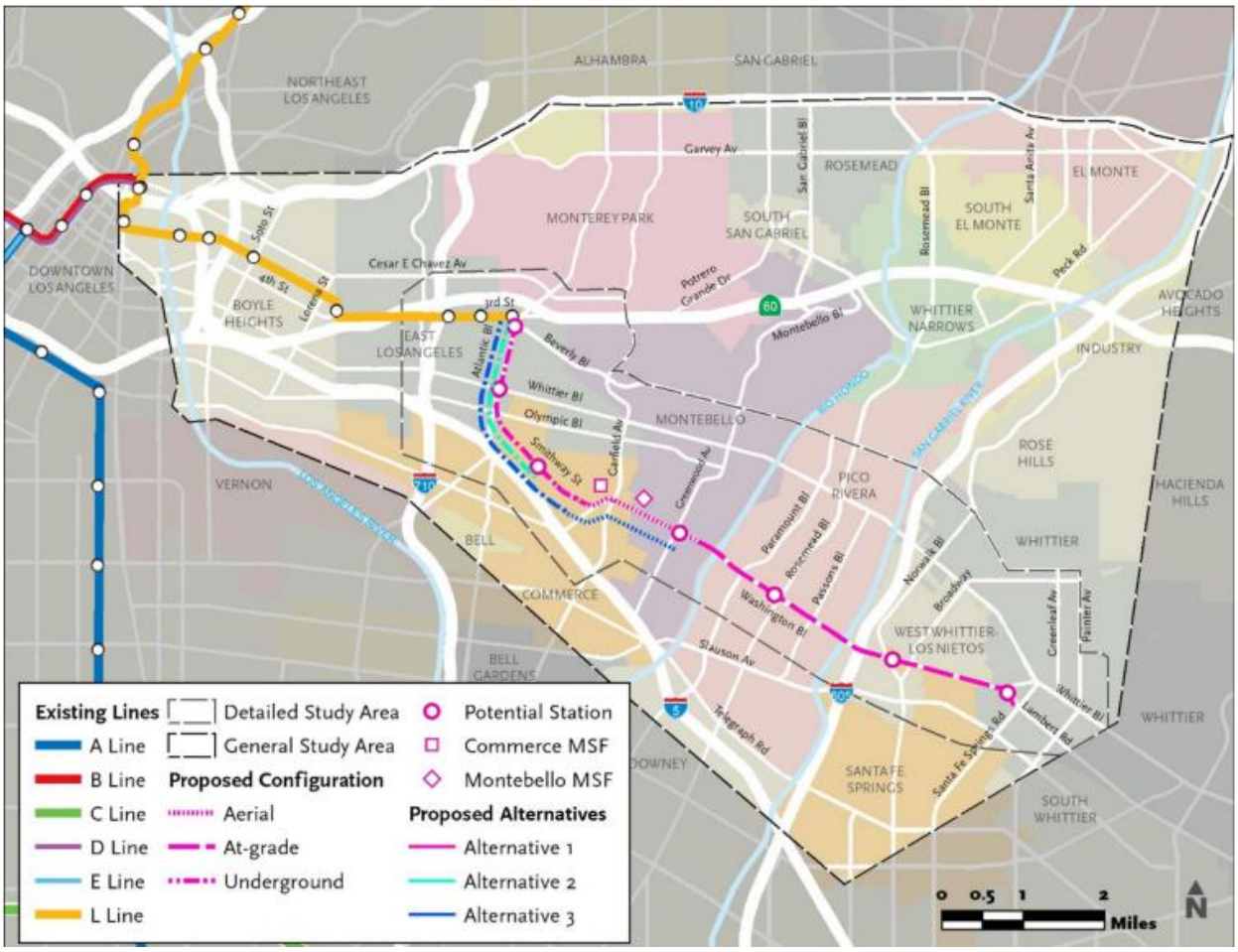
1.1 Overview

The Eastside Transit Corridor Phase 2 Project (Project) would extend the Metro L line, a light rail transit line, from its current terminus at the Atlantic Station in the unincorporated community of East Los Angeles to the City of Whittier within the Gateway Cities subregion of Los Angeles County. The Project would traverse densely populated, low-income, and heavily transit-dependent communities with major activity centers. The extension would extend the existing Metro L (Gold) Line approximately 3.2 to 9.0 miles and include the build out of one (1) maintenance and storage facility (MSF) site option. The alignment includes design options, depending on the Build Alternative.

As part of the Advanced Conceptual Engineering (ACE) design for the Project, numerous site concepts were proposed and developed for the (MSF). The purpose of the MSF is to serve as a base for rail operations and to conduct maintenance activities in conjunction with the Project as well as fulfilling existing regional needs

The purpose of this Title VI Equity Analysis is to ensure the MSF site options proposed by the Project are selected without regard to race, color, or national origin per Title VI of the Civil Rights Act of 1964 (42 United States Code Section 2000d) and in compliance with 49 Code of Federal Regulations (CFR) Section 21.9 (Non-Discrimination in Federally-Assisted Programs of the Department of Transportation. The Title VI Equity Analysis has been prepared to meet the requirements of the Federal Transit Administration (FTA) Circular 4702.1B and the Los Angeles Metropolitan Transportation Authority (Metro). Administrative Code Section 2-50-015.

Figure 1 -1 Project Map



1.2 Title VI Study Conclusions

Five MSF option sites were studied for the Washington Alternative. Three option sites were studied in the city of Commerce, one in Santa Fe Springs and a site in Montebello. All three Commerce MSF option sites had similar parcel acquisitions within the same area and had similar MSF site layouts. Commerce Option 1 had an elevated wye configuration, and that option was moved forward. The Santa Fe Springs option was withdrawn from analysis due to a new development planned and constructed. This info was provided by the city and a city coordination meeting. An MSF site option in Montebello has been further designed and included as an option that could accommodate the regional maintenance and storage needs with variations for aerial and at-grade tracks. The MSF site options evaluated in this Title VI Equity Analysis are the Commerce MSF and Montebello at grade and aerial MSF. The disparate impact for each MSF option is summarized in Table 1-1.

-

Table 1-1 Summary of Disparate Impacts to Minority Population and LEP Population		
Affected Area	**Disparate Impact to Minority Population**	**Disparate Impact to LEP Population**
Commerce MSF		•
Montebello MSF		•

2) Project Background and Purpose

2.1 History

In 2014 the Draft EIS/EIR studied the Santa Fe Springs and Commerce MSF options for Washington Alternative. In the 2017 Post technical Study the underground segment along Atlantic Boulevard was introduced and this expanded options for MSF site options. In 2020 the City of Montebello requested to analyze option sites in Montebello and one site was identified in coordination with City Staff. This site has an at grade and an aerial option.

2.2 Purpose

Metro's Administrative Code includes Title VI requirements in Chapter 2-50-015, Determination of Site or Location of Facilities. This provision applies to, but is not limited to, storage facilities, maintenance facilities, operations centers, etc. This provision does not apply to bus shelters, transit stations, fixed guideways or ancillary facilities such as power substations. Metro is required to complete a Title VI Equity Analysis during the planning stage with regard to where a project is located or sited to ensure the location is selected without regard to race, color, or national origin. The analysis, which must compare the equity of impacts of various siting alternatives, must occur before the selection of the preferred alternative.

- Title VI of the Civil Rights Act of 1964 (42 United States Code Section 2000d) states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."
- FTA Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients, requires an equity analysis to ensure that the location of a maintenance, storage, or operation facility is selected without regard to race, color, or national origin

2.3 Public Outreach

During the 60-day public review period, Metro held four public hearings in communities surrounding the Project in September and October 2014. A total of 528 participants attended these four meetings which also included 120 speakers providing public input and 148 participants providing written comments. Hearing one was held in Pico Rivera on September 27, 2014, hearing two was held in Montebello on September 29, 2014. Hearing three was in East Whittier on September 30, 2014 and hearing four was held in South El Monte on October 1, 2014.

During the 2017 Post Draft EIS/EIR Technical Study phase, Metro hosted ten community meetings and held a total of 110 briefings throughout the communities surrounding the Project and hosted two tours of Metro facilities and construction sites. Engagement efforts focused not only on general Project awareness, but also toward engaging the Washington Boulevard Coalition and SR-60 Coalition stakeholders as well as East Los Angeles in the unincorporated area of Los Angeles County. For the 2017 public meetings, Metro hosted five public community meetings in February 2017 in the cities of Whittier, Montebello, South El Monte, Commerce, and the unincorporated community of East Los Angeles to update the community and receive input on the 2017 Post Draft EIS/EIR Technical Study

Following the 2017 Post Draft EIS/EIR Technical Study, Metro re-initiated the CEQA and NEPA processes to further evaluate potential impacts associated with the refined Build Alternatives. In advance of the Public Scoping Meetings in Summer 2019, Metro offered a Community Update Meeting in East Los Angeles. One meeting was held in East Los Angeles Library on May 13, 2019, from 5:30 pm to 7:30 pm. The Community Update Meeting was attended by approximately 120 community members, including staff from Los Angeles County Supervisor Hilda Solis' office, community-based organization staff and members of the public.

Post scoping there were 3 community meetings in 2020 focusing on the SR60 corridor and the potential withdrawal of the SR60 alignment. There were four community meetings in 2021 taking place on the afternoon of November 15, evening of November 15, November 16 and November 17 in East Los Angeles, Montebello and Pico Rivera respectively. Additionally, there were six in person community events that occurred prior to the community meetings.

Since that time, the Project team has held several rounds of community meetings to update the public on major milestones. In June 2022, two virtual meetings held to provide updates on the release of the environmental document and to provide detailed information on the maintenance storage facility options for the public to comment. The meetings on June 27 and 29, 2022, were held prior to the release of the draft EIR that also included in person tech services locations in East Los Angeles and Whittier. There was a total of 169 participants and 98 comments at the June 2022 meetings.

In July and August of 2022, Metro held four public hearings to present key findings in the Draft EIR. Meeting in person were held at these corridor communities in East Los Angeles, Montebello, Pico Rivera and Whittier.

3) Methodology

3.1 Demographic and Socioeconomic Data

For this Title VI MSF report the Affected area is defined as the area located within a 0.25 mile around the boundaries of the MSF site. The Affected cities that are within the boundaries are the cities of Commerce and Montebello.

The data used in the report is taken from the U.S. Census Bureau and used block group level data. This data is used in the analysis for both the Affected Cities and Affected Area.

3.2 Definitions

The following definitions are provided from FTA Circular 4702.1B Chapter 1 and Metro's Administrative Code Section 2-50-20.

Census Block Group: A census block group consists of clusters of blocks within the same census tract. A census block group is the smallest geographical unit for which the U.S. Census Bureau publishes sample.

Disparate Impact: Disparate impact refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin and the policy lacks a substantial legitimate justification, including one or more alternatives that would serve the same legitimate objectives but with less disproportionate effects on the basis of race, color or national origin. This policy defines the threshold Metro will utilize when analyzing the impacts to minority populations and/or minority riders. For major service changes, a disparate impact will be deemed to have occurred if the absolute difference between the percentage of minority adversely affected and the overall percentage of minorities is at least five percent (5%) per Metro's Title VI Program which was updated and approved by Metro's Board in October 2019.

Limited English Proficient (LEP) Populations: LEP populations refer to persons for whom English is not their primary language and who have a limited ability to read, write, speak, or understand English. It includes people who reported to the U.S. Census that they speak English less than very well, not well, or not at all. Minority Persons: A minority person is one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander.

Minority Population**:** A minority population refers to any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed Department of Transpiration (DOT) program, policy, or activity

National Origin. National origin means the particular nation in which a person was born, or where the person's parents or ancestors were born.

4) Regulatory Framework

FTA's Circular 4702.1B, Chapter III, General Requirements

Title 49 CFR Section 21.9(b)(3) states, "In determining the site or location of facilities, a recipient or applicant may not make selections with the purpose or effect of excluding persons from, denying them the benefits of, or subjecting them to discrimination under any program to which this regulation applies, on the grounds of race, color, or national origin; or with the purpose or effect of defeating or substantially impairing the accomplishment of the objectives of the Act or this part."

Appendix C, Section (3)(iv) provides, "The location of projects requiring land acquisition and the displacement of persons from their residences and businesses may not be determined on the basis of race, color, or national origin." For purposes of this requirement, "facilities" does not include bus shelters, as these are transit amenities and are covered in Chapter IV, nor does it include transit stations, power substations, etc., as those are evaluated during project development and the NEPA process. Facilities included in this provision include, but are not limited to, storage facilities, maintenance facilities, operations centers, etc. In order to comply with the regulations: The recipient shall complete a Title VI equity analysis during the planning stage with regard to where a project is located or sited to ensure the location is selected without regard to race, color, or national origin. Recipients shall engage in outreach to persons potentially impacted by the siting of facilities. The Title VI equity analysis must compare the equity impacts of various siting alternatives, and the analysis must occur before the selection of the preferred site.

When evaluating locations of facilities, recipients should give attention to other facilities with similar impacts in the area to determine if any cumulative adverse impacts might result. Analysis should be done at the Census tract or block group where appropriate to ensure that proper perspective is given to localized impacts. If the recipient determines that the location of the project will result in a disparate impact on the basis of race, color, or national origin, the recipient may only locate the project in that location if there is a substantial legitimate justification for locating the project there, and where there are no alternative locations that would have a less disparate impact on the basis of race, color, or national origin. The recipient must show how both tests are met; it is important to understand that in order to make this showing, the recipient must consider and analyze alternatives to determine whether those alternatives would have less of a disparate impact on the basis of race, color, or national origin, and then implement the least discriminatory alternative.

Metro's Administrative Code, Chapter 2-50, Title VI Requirements and Public Hearings

Metro's Administrative Code includes Title VI requirements. Chapter 2-50-005, Major Services Changes, of Metro's Administrative Code states that "all major increases or decreases in transit service are subject to a Title VI Equity Analysis prior to Board approval of the service change. A Title VI Equity Analysis completed for a major service change must be presented to the Board of Directors for their consideration and then forwarded to the FTA with a record of the action taken by the Board." As such, the Eastside Phase 2 Transit Corridor Project is classified as a major service change due to it falling under category 1 of Metro's Administration Code 2-50-005(B)(1) which states "A revision to an existing transit route that increases or decreases the route miles by 25% or the revenue service miles operated by the

lesser of 25%, or by 250,000 annual revenue service miles at one time or cumulatively in any period within 36 consecutive months."

5) Affected environment/existing conditions

5.1 Affected Cities

The "Affected Area" is defined as areas within a 0.25 mile around the boundaries of the MSF site options. "Affected Cities" are those jurisdictions within the proposed MSF site options. For this Project the MSF site options are located in cities of Commerce and Montebello.

5.2 City of Commerce

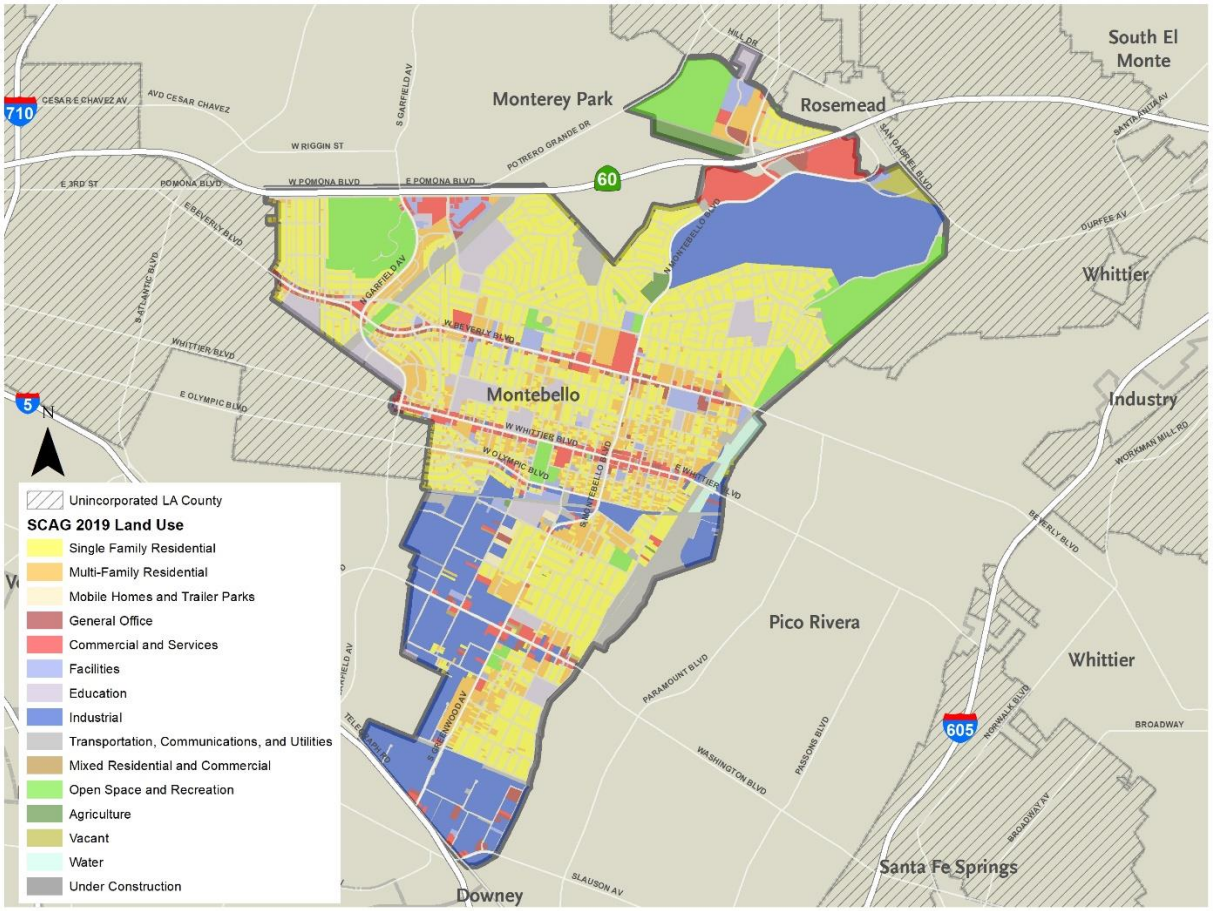
The City of Commerce, incorporated in 1960 encompasses approximately 6.6 miles. and is generally bounded by the cities of Los Angeles, Vernon, Montebello and Maywood. The MSF site is within a primarily existing industrial area of which a number of warehouse properties are served by Burlington Northern Santa Fe Railroad (BNSF). The majority of this site is commercial and light industrial and warehousing.

Figure 5-1. Land Use Map of the City of Commerce

5.3 City Of Montebello

The City of Montebello, incorporated in 1920 encompasses approximately 8.45 miles. Montebello is generally bounded by the cities of Monterey Park, Commerce, Pico Rivera and Los Angeles. The City of Commerce has a residential population of 64,353. The MSF site is primarily composed of a commercial and industrial area.

Figure 5-2. Land Use Map of the City of Montebello



5.4 MSF Site Options

In general, an MSF site is approximately 20 to 25 acres in size which is typical for a dedicated storage capacity of 80 to 100 light rail vehicles. The Commerce and Montebello sites can both accommodate 100 cars with increased capacity at the Montebello site for up to 120 cars. This acreage does not include the right-of-way for bringing in the yard lead tracks from the main line to the MSF facility.

Figure 5-3 Overview Map of MSF Candidate Sites on Washington Alternative

5.5 City of Commerce Site

This site is approximately 24.4 acres in area with an additional 7 acres for the yard leads and is located in the City of Commerce. The acreage is related to the parcel sizes and acquisitions, as the yard leads themselves will occupy approximately 2 acres to accommodate the lead track connections. The site is bounded by Gayhart Street on the southwest, Davis Avenue and Washington Boulevard to the east, Fleet Street to the north and Saybrook Avenue to the west. The majority of the nearby parcels are commercial or light industrial uses on all sides of the property. There are no residential homes located near the site. The closest residences are located over 100 feet away from the site. The site is within a primarily existing industrial area of which a number of warehouse properties are served by Burlington Northern Santa Fe Railroad (BNSF). The majority of this site is developed and occupied by commercial and light industrial and warehousing.

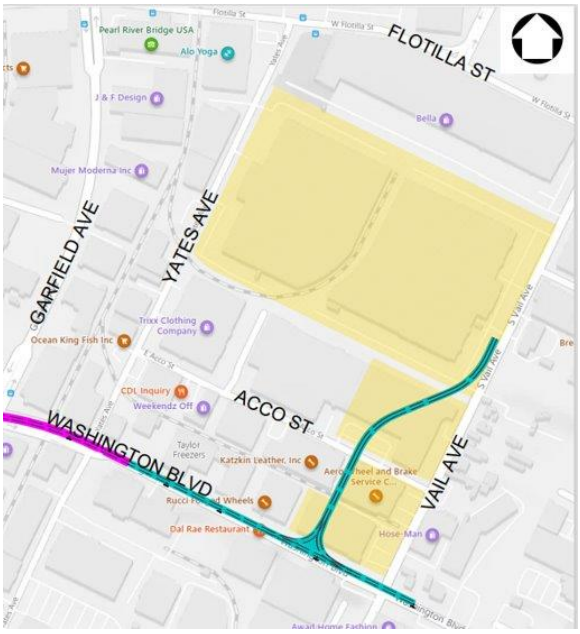
Figure 5-4 - Commerce MSF Site

5.6 City of Montebello Site

5.6.1 Aerial Wye Option

Two options have been evaluated for the yard lead tracks and is dependent on the main line configuration remaining aerial from Garfield Avenue to Montebello Blvd with an aerial station at Greenwood Blvd or descending to grade with an at-grade station at Greenwood. This site is approximately 31 acres in area with an additional 9 acres for the yard leads and is located in the City of Montebello. The acreage is related to the parcel sizes and acquisitions, as the yard leads themselves will occupy approximately 2 acres to accommodate the lead track connection. The site is bounded by Flotilla Street on the north, Washington Boulevard on the south, Yates Avenue on the west, and Vail Avenue to the east. An aerial wye may be operationally preferred and would not require at-grade train movements across Washington or require the closure of Acco Street. Both options are feasible. The majority of the nearby parcels are commercial or light industrial uses on all sides of the property. There are no residential homes located near the site. The closest residences are located 1,000 feet from the site.

Figure 5-4 – Montebello MSF Option



5.6.2 At-grade Wye Option

This site is approximately 31 acres in area with an additional 9 acres for the yard leads and is located in the City of Montebello. The acreage is related to the parcel sizes and acquisitions, as the yard leads themselves will occupy approximately 2 acres to accommodate the lead track connection. With an at-grade wye, the main tracks are tangent at-grade and provide space in the median for placement of single No. 10 crossovers on either side of the MSF yard lead track connections that cross the eastbound lanes of Washington Boulevard. Yard lead track vehicle movements from the main tracks across the eastbound traffic lanes into the yard will be via traffic signals. Provisions for railroad crossing gates will be evaluated. An at-grade wye will require Acco Street a local street, which is north of Washington Blvd, to be discontinued with cul-del-sacs on both sides of the yard lead tracks.

6) Demographic and Socioeconomic Characteristics of the Affected Area

The data used in this study is demographic and socioeconomic from the US Census Bureau, ACS 5 Year estimates for the Affected Cities of Commerce and Montebello and their respective Affected Areas.

6.1 Minority Population

Table 6-1 presents the total population and minority share for the population for LA county and for each of the Affected Cities.

Table 6-1 Total and Minority Population in the Affected Cities

Jurisdiction	Total Population	Total Minority Population	Minority Share of the Population
LA County	10,014,009	7,428,740	73.4%
Commerce	12,378	12,085	98%
Montebello	62,640	58,180	93%

Table 6-2 presents population and minority share of the total population of the Affected Area for each MSF site option. The Commerce MSF has a smaller total population than the Montebello MSF. Both sites have a similar minority share of the population with Commerce having a higher minority percent share 49.8% and Montebello having a slightly lower minority percent share 49.6%.

Table 6-2 Total and Minority Population of Affected Area (within 0.25 mile of MSF Site)

Affected Area	Total Population	Total Minority Population	Minority Share of the total population
Commerce MSF	1453	723	49.8%
Montebello MSF	3335	1,653	49.6%

6.2 Limited English Proficiency

Table 6-3 shows the share of residents with LEP populations in the Affected Cities. Spanish is the most common language spoken for each community. Montebello does have a percentage of the LEP population with other Indo-European language and 3% Asian/Pacific language while Commerce has 0% for both.

Table 6-3 Limited English Proficiency in the Affected Cities

Jurisdiction	Any LEP Language	Spanish	Other Indo-European Language	Asian/Pacific Island Language
LA County	13%	9%	1%	3%
Commerce	20%	20%	0%	0%
Montebello	16%	13%	<1%	3%

Table 6-4 shows the share of residents with LEP populations in the Affected Area. For both sites Spanish is the most common other language spoken for each community. The Affected areas have a higher

percent of LEP populations compared to LA County at 13%. The Commerce MSF has a higher percentage of Spanish speakers than the Montebello MSF with 73.3%.

Table 6-4 Limited English Proficiency in the Affected Area (within 0.25 mile of MSF Site Option)

Affected Area	Any LEP Language	Spanish	Other Indo-European Language	Asian/Pacific Island Language
Commerce MSF	73.3%	73.3%	0.0%	0.0%
Montebello MSF	66.4%	66.4%	0.0%	0.0%

6.3 Minority Owned Businesses

Table 6-5 shows the impacted businesses within the MSF sites. There are 18 impacted business in the Commerce MSF and 8 in the Montebello MSF. The analysis to determine if these businesses are identified as minority owned will take place during the National Environmental Policy Act (NEPA) process. The same process will be done for the impacted business that are adjacent to the MSF sites shown in table 6-6. A minority-owned business is defined as a business with 51 percent or more of its stock or equity being owned, operated, and controlled on a daily basis by one or more (in combination) American citizens of the following ethnic minorities: Black, Asian/Asian Pacific Islander, Hispanic, and Native American. There will be no residential property acquisitions for this Project and the areas of both the Commerce and Montebello MSF are primarily commercial and industrial.

Table 6-5 Impacted Jobs and Businesses Located within the MSF Site Boundaries

MSF Site Option	Impacted On-Site Jobs	Total Impacted Businesses	Identified Minority-Owned Businesses	Unknown Minority-Owned Status	Percent Share of Minority-Owned Business
Commerce	1,983	18	N/A	18	N/A
Montebello	1,038	8	N/A	8	N/A

Table 6-6 Impacted Jobs and Businesses Adjacent to the MSF Site Boundaries

MSF Site Option	Impacted Off-Site Jobs	Total Impacted Adjacent Businesses	Identified Minority-Owned Businesses	Unknown Minority-Owned Status	Percent Share of Minority-Owned Business
Commerce MSF	518	21	N/A	21	N/A
Montebello MSF	708	28	N/A	28	N/A

7) Assessment and Conclusion

7.1 Disparate Impact Assessment

A disparate impact refers to a valid neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effects on the basis of race, color, or national origin. A disparate impact will be deemed to have occurred if the absolute difference between the percentage of the minority population within the Affected Area and the overall percentage of the minority population in LA County is at least 5 percent, or if there is a 20 percent or greater difference between the percentages of these two groups.

7.2 Minority Population

Table 7-1 Difference between Minority Populations in the Affected Area and LA County

Affected Area	Percent Minority Population	Absolute Difference	At Least 5% Absolute Difference	Relative Difference	20% or Greater Relative Difference
LA County	73.4%				
Commerce MSF	49.8%	-23.6%	No	-47.39%	No
Montebello MSF	49.6%	-23.8%	No	-47.98%	No

Table Notes:

a Minority status is defined by race/ethnicity categories of individuals self-identifying as Hispanic and non-Hispanic African American, Asian and Pacific Islanders, Two or More Races, or Other Non-White race categories.

b A disparate impact will be deemed to have occurred if the absolute difference between the percentage of the minority population adversely affected by the MSF and the overall percentage of the minority population in Los Angeles County is at least 5%, or if there is a 20% or greater difference between the percentages of these two groups.

c The Relative Difference is the Absolute Difference divided by the Percent Minority Employees/Business owners for each MSF option.

7.3 Limited English Proficiency Population

Table 7-2 Difference Between LEP Populations in the Affected Area and LA County

Affected Area	LEP Population	Absolute Difference	At Least 5% Absolute Difference	Relative Difference	20% or Greater Relative Difference
LA County	13%				
Commerce MSF	73.3%	60.3%	Yes	82.25%	Yes
Montebello MSF	66.4%	53.4%	Yes	80.43%	Yes

7.4 Mitigation Measures

The Commerce and Montebello sites both have land uses that are compatible for a MSF site. The majority of the nearby parcels are commercial or light industrial uses on all sides of the properties. The cities of Montebello and Commerce have given input on the locations of the MSFs. Community meetings were held in June 2022 to receive feedback and to share information with the public about the location of the MSF site options.

There are no residential displacements anywhere in the project area. Under CEQA, the owners of the private property have state constitutional guarantees through the California Relocation ACT. Under this ACT, Metro would provide relocation assistance and benefits private property owners that are impacted by the project. During the upcoming NEPA process, displacement and relocation will be evaluated. If this assessment results in a mitigation, then the project will need to comply with the Uniform Relocation Act.

7.5 Conclusions

The cities where the MSF sites are located are comprised of primarily minority populations with the city of Montebello at 93% and the City of Commerce at 98% compared to LA County at 73.4%. The area of the MSF sites has lower minority populations than the cities where they are located with Montebello MSF at 49.8% and Commerce MSF at 49.6%. Table 7-3 summarizes the disparate impacts to the affected areas. Neither the Commerce MSF or the Montebello MSF has a disparate impact with the absolute and relative differences both being negative numbers that are below the thresholds of the absolute and relative difference. The Commerce MSF and Montebello MSF sites would both have a disparate impact to LEP populations. The Commerce site has the larger absolute difference at 60.3% and the Montebello site at 53.4%. The MSF sites were determined based on community and city input, operational and engineering compatibility and minimizing environmental impacts.

Table 7-3 Summary of Disparate Impacts to Minority Population and LEP Population

Affected Area	Disparate Impact to Minority Population	Disparate Impact to LEP Population
Commerce MSF		•
Montebello MSF		•

8 References

Los Angeles County Metropolitan Transportation Authority (Metro). Administrative Code, Chapter 2-50, 2-50-015.

Los Angeles County Metropolitan Transportation Authority (Metro). Title VI Program Update. October 2019.

Los Angeles County Metropolitan Transportation Authority (Metro). Eastside Transit Corridor Phase 2 Final Maintenance and Storage Facility Feasibility Report

U.S. Department of Transportation, Federal Transit Administration (FTA). 2012. Circular FTA C 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients, October 1, 2012.

American Community Survey (ACS) 2016-2020 Data

2019 Annual Land Use - SCAG

PROCUREMENT SUMMARY

EASTSIDE PHASE 2 PROJECT - ALTERNATIVE ANALYSIS, ENVIRONMENTAL CLEARANCE & CONCEPTUAL ENGINEERING CONSULTANT SERVICES/PS4320-2003

1.	**Contract Number**: PS4320-2003			
2.	**Contractor**: CDM Smith/AECOM, a Joint Venture			
3.	**Mod. Work Description**: Technical and outreach services to reinitiate the National Environmental Policy Act (NEPA) environmental clearance process and extend period of performance through 12/31/2024.			
4.	**Contract Work Description**: Environmental work for the Eastside Transit Corridor Project.			
5.	**The following data is current as of**: 10/20/2022			
6.	**Contract Completion Status**		**Financial Status**	
	Contract Awarded:	07/31/2007	**Contract Award Amount:**	$2,203,584
	Notice to Proceed (NTP):	08/09/2007	**Total of Modifications Approved:**	$25,381,895
	Original Complete Date:	06/04/2008	**Pending Modifications (including this action):**	$4,748,305
	Current Est. Complete Date:	12/31/2024	**Current Contract Value (with this action):**	$32,333,784
7.	**Contract Administrator**: Samira Baghdikian		**Telephone Number**: (213) 922-1033	
8.	**Project Manager**: Jenny Cristales-Cevallos		**Telephone Number**: (213) 547-4256	

A. Procurement Background

This Board Action is to approve Contract Modification No. 22 issued in support of technical and outreach services to reinitiate the NEPA environmental clearance process. This Contract Modification also extends the period of performance from December 30, 2022 through December 31, 2024.

This Contract Modification was processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

On July 31, 2007, the Board awarded firm fixed price Contract No. PS4320-2003 to CDM Smith/AECOM, a Joint Venture, in the amount of $2,203,584 to perform full environmental clearance under federal and state law for Phase II of the Los Angeles Eastside Transit Corridor.

A total of 21 modifications have been executed to date.

Refer to Attachment E - Contract Modification/Change Order Log.

B. Cost Analysis

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and negotiations. Staff successfully negotiated a savings of $127,623.

Proposal Amount	Metro ICE	Negotiated Amount
$4,875,928	$3,121,409	**$4,748,305**

The variance between the ICE and negotiated amount is due to the inclusion of outreach services and the level of effort needed to conduct analysis and update the Environmental Impact Statement (EIS) to meet FTA requirements for the NEPA process per the Board's request. Costs associated with outreach services are project management tasks and support at progress and technical meetings as needed.

CONTRACT MODIFICATION/CHANGE ORDER LOG
EASTSIDE PHASE 2 PROJECT - ALTERNATIVE ANALYSIS, ENVIRONMENTAL CLEARANCE & CONCEPTUAL ENGINEERING CONSULTANT SERVICES / PS4320-2003

Mod. No.	Description	Status (approved or pending)	Date	$ Amount
1	Exercise Draft Environmental Impact Statement /Report (EIS/EIR)Option	Approved	03/04/2009	$11,418,071
2	Perform Draft EIS/EIR and extend period of performance (POP) through 5/31/12.	Approved	04/29/2011	$395,643
3	Review previous studies, perform additional research and prepare an analysis of how the Sunnyvale decision impacts the corridor.	Approved	06/07/2011	$72,258
4	Add SR 60 LRT Alternative North Option, remove New Starts related task and add Qualitative and Quantitative Analyses.	Approved	07/05/2011	$0
5	No cost POP extension through 2/28/13.	Approved	04/18/2012	$0
6	Updates to the Administrative Draft EIS/EIR, preparation to the DEIS/DEIR and various modeling processes, extend POP through 2/28/14.	Approved	02/27/2013	$1,165,737
7	Professional outreach services due to changes in the project schedule and a seven-month extension through 9/30/14.	Approved	02/28/2014	$221,877
8	No cost POP extension through 10/31/14.	Approved	10/01/2014	$0
9	Technical and professional services due to changes in the project schedule and a five-month extension through 2/28/15.	Approved	10/29/2014	$71,209
10	No cost POP extension through 6/30/15.	Approved	01/12/2015	$0
11	No cost POP extension through 7/31/15.	Approved	05/28/2015	$0
12	Further study on the two alternatives evaluated in the Draft	Approved	07/16/2015	$2,898,336

	EIS/EIR and POP extension through 1/31/17.			
13	Addressing Caltrans requirements related to Hazardous Materials Limits of Waste.	Approved	04/06/2016	$43,771
14	Develop additional technical analysis for three underground routing connection concepts as part of the refinement for the Washington Blvd study.	Approved	08/18/2016	$324,875
15	Reallocation of existing tasks to cover additional project management, engineering, and planning work and extending POP through 12/31/17.	Approved	06/16/2017	$0
16	Additional tasks in preparation for re-initiation of environmental process and POP extension through 2/28/18.	Approved	10/04/2017	$233,364
17	No cost POP extension through 7/31/18.	Approved	01/03/2018	$0
18	Reinitiated environmental clearance study and POP extension through 10/31/21.	Approved	10/25/2018	$7,847,298
19	No cost POP extension through October 31, 2018.	Approved	05/21/2018	$0
20	Evaluation of one build alternative and prepare a CEQA only document for the project and reallocation of tasks no longer required and POP extension through 10/31/22.	Approved	02/25/2021	$689,456
21	No cost POP extension through 12/31/22.	Approved	8/25/2022	$0
22	Technical and outreach services to reinitiate the NEPA environmental clearance process and POP extension through 12/31/24	**Pending**	**Pending**	**$4,748,305**
	Modification Total:			**$30,130,200**
	Original Contract:		07/31/2007	**$2,203,584**
	Total:			**$32,333,784**

DEOD SUMMARY

EASTSIDE PHASE 2 PROJECT - ALTERNATIVE ANALYSIS, ENVIRONMENTAL CLEARANCE & CONCEPTUAL ENGINEERING CONSULTANT SERVICES/PS4320-2003

A. Small Business Participation

CDM Smith/AECOM (JV) made a 16.32% Disadvantaged Business Enterprise (DBE) commitment. Based on payments, the project is 93% complete and the current level of DBE participation is 15.62%, representing a slight shortfall of 0.70%.

CDM Smith/AECOM JV has a shortfall mitigation plan on file. The JV explained that the DBE shortfall is due in part to Metro approving in February 2020 that the project would not seek federal funding, and therefore did not require environmental clearance under the National Environmental Policy Act (NEPA). As a result, half of the planned scope of work for Morgner Technology Management's (Morgner) was no longer needed. However, in July 2022, Metro instructed the JV to prepare a scope and budget to re-initiate the NEPA environmental clearance process. The JV anticipates the NEPA environmental clearance will begin in January 2023, at which time, Morgner will commence work on the NEPA reports. The JV further reported that it expects to see an increase in DBE subcontractor utilization as work begins to ramp up in January 2023. In the current modification, CDM Smith/AECOM JV is proposing 38.13% DBE participation.

The Diversity & Economic Opportunity Department (DEOD) will continue to monitor contract progress to ensure that the JV meets and/or exceeds its commitments.

Small Business Commitment	**DBE 16.32%**	**Small Business Participation**	**DBE 15.62%**

	DBE Subcontractors	**Ethnicity**	**% Committed**	**Current Participation[1]**
1.	D'Leon Consulting Engineers	Hispanic American	8.58%	3.36%
2.	LKG-CMC, Inc.	Caucasian Female	3.20%	1.95%
3.	Morgner Technology	Hispanic American	4.54%	2.64%
4.	AIM Consulting Services	Hispanic American	Added	0.54%
5.	Barrio Planners	Hispanic American	Added	3.55%
6.	Galvin Preservation Associates (GPA)	Caucasian Female	Added	0.05%

7.	JBG Environmental	Caucasian Female	Added	0.25%
8.	Translink Consulting	Asian Pacific Female	Added	1.45%
9.	Wagner Engineering & Survey, Inc.	Caucasian Female	Added	1.70%
10.	Arellano Associates	Hispanic American	Added	0.04%
11.	Environmental Treatment and Technology	Hispanic American	Added	0.09%
	Total		**16.32%**	**15.62%**

[1]Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction related value in excess of $2.5 million.

Next stop: further east.

EASTSIDE TRANSIT CORRIDOR PHASE 2

Planning and Programming

November 16, 2022

Metro

Recommendation

CONSIDER:

A. APPROVING the Lambert Station in the City of Whittier the terminus for the 9 miles Eastside Transit Corridor Phase 2 project and authorizing the preparation of the final Environmental Impact Report (EIR) for the full project through California Environmental Quality Act (CEQA)
B. APPROVING the Locally Preferred Alternative (LPA) as Alternative 3: Initial Operating Segment (IOS) Greenwood, between the existing terminus of Metro L (Gold) Line to Greenwood Station; including Atlantic/Pomona (open underground station) and Greenwood Station (at-grade) options, and a Maintenance and Storage Facility (at-grade) located in the city of Montebello; and
C. APPROVING the results of the Title VI Equity Analysis: Siting and Location of Maintenance and Storage Facility Sites for the Eastside Transit Corridor Phase 2 project, and
D. AUTHORIZING the Chief Executive Officer to execute Modification No. 22 to Contract No. PS4320-2003 with CDM Smith/AECOM Joint Venture (JV) Technical and Outreach Services to reinitiate the National Environmental Policy Act (NEPA) environmental clearance process in the amount of $4,748,305, increasing the total current contract value from $27,585,479 to $32,333,784 and extend the period of performance from December 30, 2022, to December 31, 2024.

Measure M Project Timeline

2018-2021	2022-2023	2023-2028	2029	2035
Reinitiated Environmental Process and Advanced Conceptual Engineering	Final California Environmental Quality Act (CEQA) Clearance - Summer 2023	• Final Design • Reinitiate National Environmental Policy Act (NEPA) Process – Early 2023 and final clearance by 2025	Construction	Open for Service

ONGOING PUBLIC PARTICIPATION

Measure M expenditure plan allocates $3 billion (2015$) starting 2029 with opening 2035-2037. The Board recommendations are consistent with Measure M for the full alignment.

Project Build Alternatives

Alternative 1 Washington

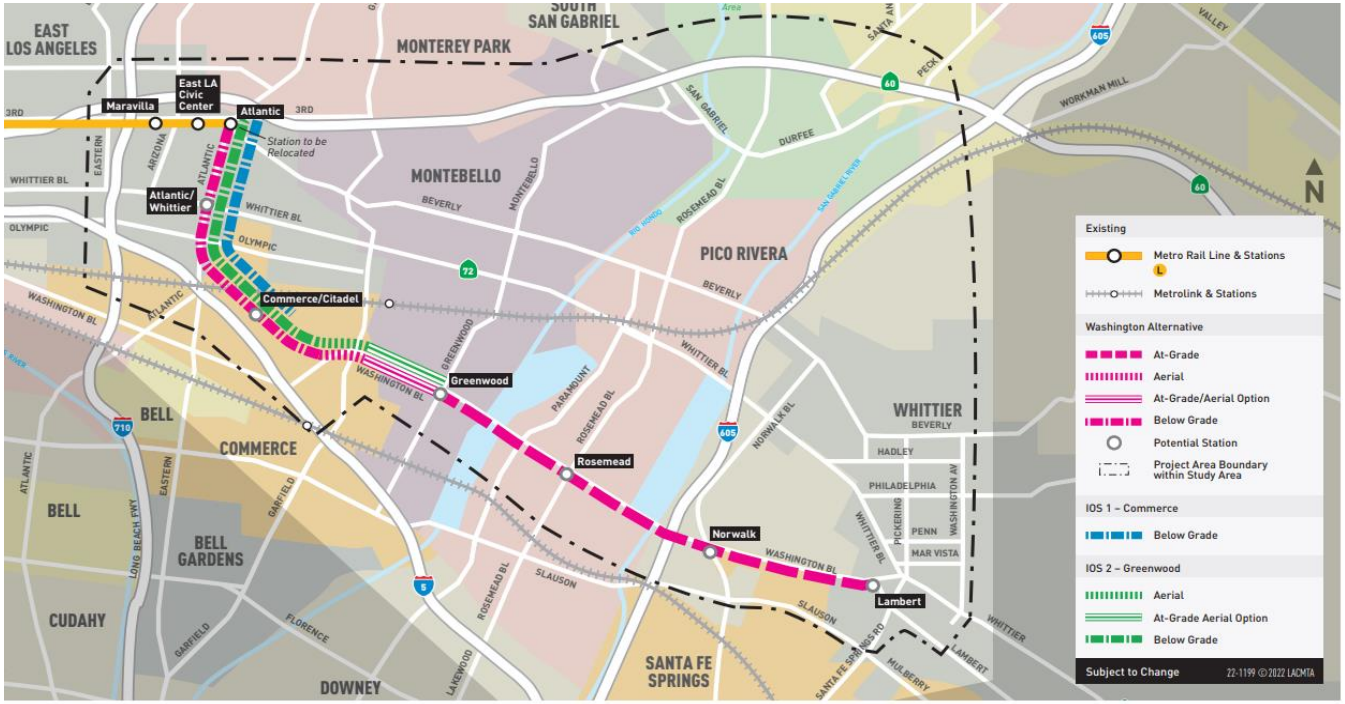
- Approx. 9 miles
- Atlantic Boulevard – Lambert Station
- Commerce or Montebello MSF site option

Alternative 2 IOS Commerce

- Approx. 3.2 miles
- Atlantic Boulevard - Commerce/Citadel station
- Commerce MSF site option

Alternative 3 IOS Greenwood

- Approx. 4.6 miles
- Atlantic Boulevard - Greenwood station
- Commerce or Montebello MSF site option



Design options

- Underground open-air station at Atlantic/Pomona *(ex. Memorial Park Metro L)*
- At-grade segment in the City of Montebello with an at-grade Greenwood station

Maintenance Storage Facility Options

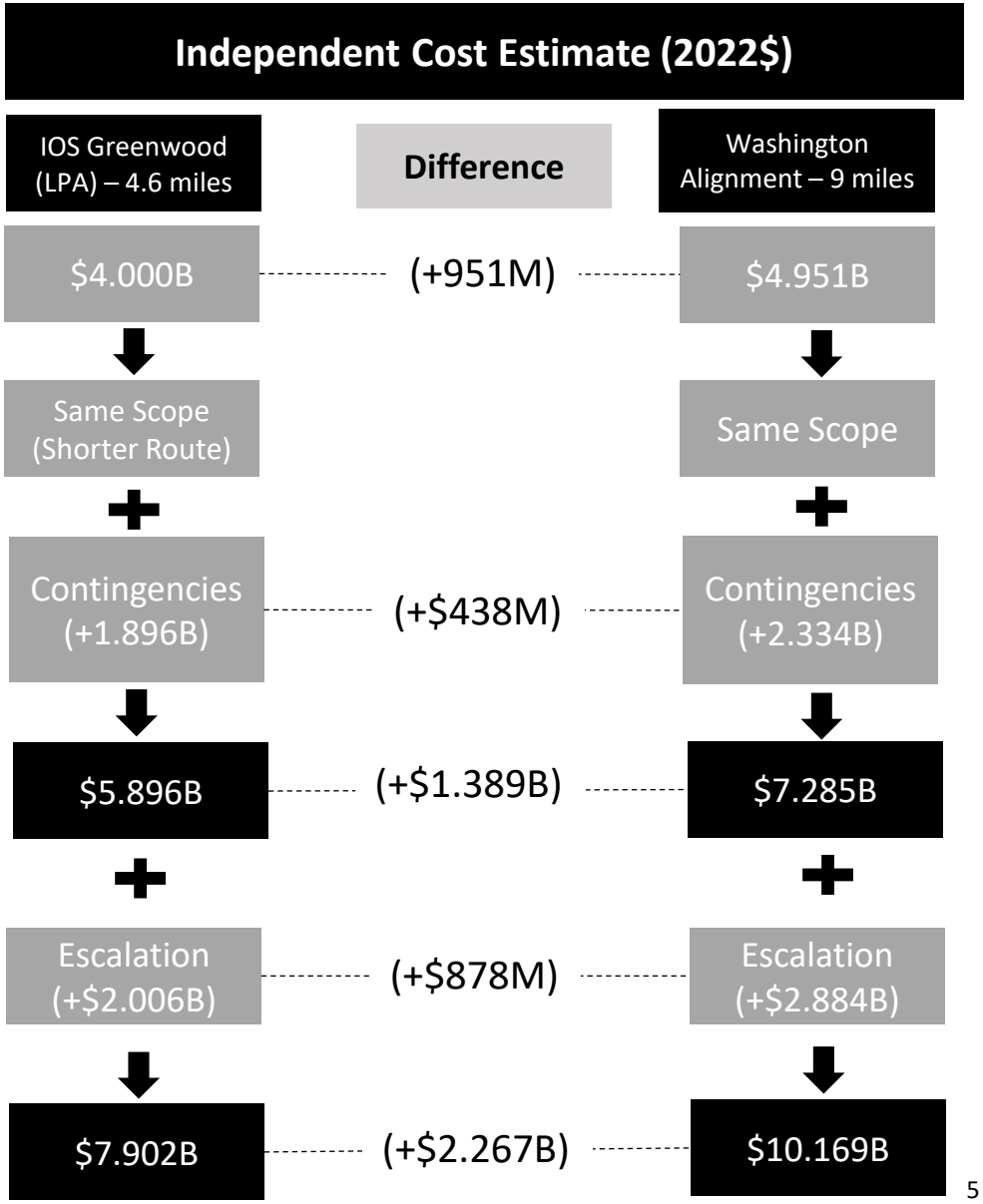
Commerce MSF: Capacity 100 LRV

Montebello MSF: Capacity 120 LRV

Metro

Project Cost Estimate Update

- Project scope based upon board approved design change to underground Atlantic alignment.
- Escalation and contingency included in accordance with lessons learned and recent projects with FTA oversight.
- Recognizing industry best practices for estimating projects with this level of design and remaining uncertainty, applying an upper bound of 30% to cost estimates. This results in YOE costs between $7.9B and $10.2B.
- Updating the estimate based on the above factors is an element of our Early Intervention strategies to ensure transparency to the Board and improve project delivery with a focus on cost control and containment.



Metro

Proposed Funding Plan

Uses	IOS Greenwood
Total, Uses	$7.9

Sources - Secured	
Other Local (Sales Tax, 3% Contribution)	$0.5
Measure R	$1.3
Measure M	$1.6
Sources - Yet-To-Be-Secured	
Local (Sales Tax, 3% Contribution)	0.4
State (Cap/Trade, SB-1 Surplus)	1.8
Federal (IIJA/BIL)	2.4
Total, Sources	$7.9

Costs in year of expenditure dollars, in billions.

- The proposed LPA funding plan is comprised of local funding from the sales tax measures and yet-to-be-secured state and federal sources.
- Local tradeoffs from other projects and programs are also considered.
- Metro will seek federal funding related to the Infrastructure Investment and Jobs Act and state funding from the state budget surplus and SB-1 grant programs.
- Completion to Whittier assumes existing federal Capital Investment Grants and state SB-1 grant programs will be functioning and future funding sources available yet to be secured.

Recommended Locally Preferred Alternative (LPA)

Recommended LPA: Alternative 3 IOS Greenwood with design options

- Underground open-air station at Atlantic/Pomona Station
- At-grade Greenwood station
- Montebello Maintenance Storage Facility

Findings from Draft EIR

- Environmentally Superior Alternative (CEQA) possesses an overall environmental advantage
- Higher environmental benefits
- Supports regional connectivity
- New transit access to communities who otherwise not served by the Metro rail network
- Includes the Montebello MSF that reduces significant and unavoidable impacts and meets the regional operational needs

Next Steps

- Proceed with the selected LPA and full project alignment into the Final EIR
- Approve contract modification for environmental services to proceed with NEPA to seek federal funding for the project
- Engineering professional services contract anticipated at the January meeting.
- Execute Master Cooperative Agreements with local jurisdictions to begin early next year
- Freezing the project definition once the project has reached 30% design.

Metro

File #: 2022-0722, **File Type:** Contract **Agenda Number:** 18.

PLANNING AND PROGRAMMING
NOVEMBER 16, 2022

SUBJECT: MULTIMODAL HIGHWAY PROGRAM ON-CALL - PROJECT & PROGRAM DELIVERY SUPPORT SERVICES

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

A. EXECUTE Contract Nos. AE89212000 with HDR Engineering, Inc.; AE89212001 with HNTB Corporation; AE89212002 with Parsons Transportation Group; AE89212003 with TranSystems Corporation; and AE89212004 with WSP USA, Inc., respectively, for Multimodal Highway Program and Project Delivery Support Services and other related work, for a three-year base period for an aggregate not-to-exceed amount of $55,000,000 and one, one-year option term for a not-to-exceed amount of $5,000,000, for a total not-to-exceed amount of $60,000,000, subject to resolution of properly submitted protest(s), if any; and

B. EXECUTE Task Orders within the approved not to exceed cumulative value.

ISSUE

Metro's Complete Streets and Highways section in the Countywide Planning and Development Department's Multimodal Integrated Planning Division requires professional services support to develop and complete transportation planning studies, environmental studies, final design, project management, risk analysis, and other transportation planning and development services. The Multimodal Complete Streets and Highways On-call services contracts will enable the award of task orders in support of subregional and agency-wide priorities.

BACKGROUND

The CEO's September 2021 realignment that created a Multimodal Integrated Planning Division in the Countywide Planning and Development Department has enabled a re-assessment of Metro's Highway Projects, both current (e.g. I-605 Corridor Improvements Project) and future, to ensure alignment with the Board's recently adopted Objectives for Multimodal Highway Investments (File #2022-0302). Metro's Complete Streets and Highways section will be developing several small and

medium scale transportation improvement projects following subregional, agency-wide priorities and the Board approved Objectives for Multimodal Highway Investments.

DISCUSSION

Since July 2020, the Complete Streets and Highways section has been successfully utilizing the current On-call support contracts to start and complete multimodal locally prioritized arterial and highway improvements throughout Los Angeles County. Through the existing On-call contracts, staff has executed 25 task orders for approximately $40 million to advance multimodal Measure R and M projects on the State Highway System (SHS) as well as local improvements in the cities of Whittier, Compton, Signal Hill, Carson and other local jurisdictions, nearly reaching the Board approved contract authority.

The new On-call services contracts will allow the advancement of a similar number of multimodal Measure R and M improvements on behalf of the cities of San Gabriel, Whittier, Hermosa Beach, Compton and other local jurisdictions throughout the County that have asked Metro for technical assistance. Staff will also develop multimodal Board-approved projects, such as the SR-14 Traffic Safety project. Metro will continue delivery of professional, technical, and administrative services in the following areas with the new contracts: (1) Planning and Technical Studies, (2) Research/Data Collection, (3) Project Approval and Environmental Document (PA/ED),(4) Plans, Specifications, and Estimates (PS&E), (5) Utilities and Right of Way, (6) Intelligent Transportation Systems Support, (7) Traffic Engineering Support Services (8) Program/Project Management Support, (9) Administrative Project Support Activities and other tasks. The Complete Streets and Highways On-call is available and has been utilized by Shared Mobility, Countywide Planning and Development, Program Management, and other departments within the Metro organization as needed.

DETERMINATION OF SAFETY IMPACT

Approval of this procurement will support the development of a safer multimodal transportation system that will provide high-quality mobility options to enable people to spend less time traveling..

FINANCIAL IMPACT

Funding for the individual task orders shall be based on availability of funds and will be provided through approved FY23 Complete Streets and Highways project budgets. Approved annual budgets of other departments in current and future years that will be using this on-call will also fund individual task orders through their established annual project budgets.

Impact to Budget

There is no impact to the FY23 budget. Annually, funds will be included in the fiscal year budget for each planned project and task issued. Since these are multi-year contracts, the Senior Executive Officer, Multimodal Integrated Planning and the Cost Center Manager will be responsible for budgeting the costs in future fiscal years.

EQUITY PLATFORM

To ensure maximum opportunity for participation on this contract, Metro posted the solicitation through periodicals of general circulation, LA Sentinel, Rafu Shimpo, Los Angeles Daily News, La Opinion and Metro's Vendor Portal, and e-mail notices were sent to small businesses within the applicable NAICS codes. A virtual pre-proposal meeting was also held on July 7, 2022. The Proposal Evaluation Team was gender diverse with half of the PET being women of color. Moreover, 30% of the work will go to SBE firms and 3% will go to DVBE firms. Staff will be working with the following EFC cities to advance their transportation priorities, Compton, Long Beach, Lynwood, San Gabriel, Signal Hill, South Gate, and Whittier.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan goal #1 Provide high-quality mobility options that enable people to spend less time traveling.

Goal 1.1 Approval of the Multimodal Highway on-call will expand the transportation system as responsibly and quickly as possible as approved in Measure R and M to strengthen and expand LA County's transportation system.

ALTERNATIVES CONSIDERED

Complete streets and highways has reached the financial board approved contract amount for the existing on-call. Staff could have requested an extension or modification to increase the on-call contracting authority, however the procurement of the on-call has enabled re-competition for the On-call support services.

NEXT STEPS

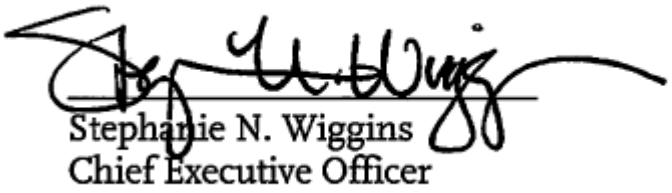
Upon approval by the Board, staff will execute Contract Nos. AE89212000 with HDR Engineering, Inc.; AE89212001 with HNTB Corporation; AE89212002 with Parsons Transportation Group; AE89212003 with TranSystems Corporation; and AE89212004 with WSP USA, Inc.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

Prepared by: Isidro Panuco, Sr Manager Transportation Planning, (213) 547-4372
Ernesto Chaves, Senior Executive Officer (Interim), (213) 547-4362
Debra Avila, Deputy Chief Vendor Contract Management, (213) 418-8351

Reviewed by:
James De la Loza, Chief Planning Officer (213) 547-4215



Stephanie N. Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

MULTIMODAL HIGHWAY PROGRAM ON-CALL/PROJECT & PROGRAM DELIVERY SUPPORT SERVICES
AE89212000 through AE89212004

1.	**Contract Numbers**: AE89212000, AE89212001, AE89212002, AE89212003, AE89212004	
2.	**Recommended Vendor**: HDR Engineering, Inc. (AE89212000), HNTB Corporation (AE89212001), Parsons Transportation Group (AE89212002), TranSystems Corporation (AE89212003), and WSP USA Inc. (AE89212004)	
3.	**Type of Procurement (check one):** ☐ **IFB** ☐ **RFP** ☒ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 6/24/2022	
	B. Advertised/Publicized: 6/27/2022	
	C. Pre-Proposal Conference: 7/7/2022	
	D. Proposals Due: 7/25/2022	
	E. Pre-Qualification Completed: Pending	
	F. Conflict of Interest Form Submitted to Ethics: 8/5/2022	
	G. Protest Period End Date: 11/10/2022	
5.	**Solicitations Picked-up/ Downloaded**: 129	**Proposals Received**: 8
6.	**Contract Administrator**: **Andrew Conriquez**	**Telephone Number**: **213-922-3528**
7.	**Project Manager**: **Isidro Panuco**	**Telephone Number**: **213-547-4372**

A. Procurement Background

This Board Action is to approve the award of Contract Nos. AE89212000 with HDR Engineering, Inc.; AE89212001 with HNTB Corporation; AE89212002 with Parsons Transportation Group; AE89212003 with TranSystems Corporation, and AE89212004 with WSP USA Inc., for multimodal highway program on-call and project & program delivery support services. Board approval of contract awards are subject to resolution of any properly submitted protest(s).

This Architectural and Engineering (A&E) qualifications-based Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy. The RFP was issued with an SBE/DVBE goal of 33% (SBE 30% and DVBE 3%).

Work to be performed under each Contract will be authorized through the issuance of separate task orders. Each future task order will contain a specific statement of work for a scope of services and will be issued on a firm fixed-price basis.

On June 24, 2022, staff released RFP No. AE89212. Two amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on July 1, 2022, provided the virtual link for the pre-proposal conference;

- Amendment No. 2, issued on July 15, 2022, updated and increased the size of the electronic submittals to 20 MB each.

A virtual pre-proposal conference was held on July 7, 2022 and was attended by 105 participants representing multiple companies. There were 5 questions asked at the pre-proposal conference and 21 additional questions were received throughout the Question and Answer process and responses were released prior to the proposal due date.

A total of 129 firms downloaded the RFP and were included in the plan holders list. A total of 8 proposals were received on the proposal due date of July 25, 2022.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- Experience and Capabilities of the Firms on the Contractors Team 40 percent
- Management Plan, Availability and Controls 30 percent
- Degree of Skills and Experience of Team Members 30 percent

The evaluation criteria are appropriate and consistent with criteria developed for other, similar A&E support services procurements. Several factors were considered when developing these weights, giving the greatest importance to the experience and capabilities of the firms on the contractors' team.

This is an A&E, qualifications-based procurement; therefore, price cannot be used as an evaluation factor pursuant to state and federal law.

During the week of October 3, 2022, the PET completed its independent evaluation of the eight (8) proposals received and determined that five (5) were deemed the most highly qualified to provide the services required.

The five firms within the competitive range are listed below in alphabetical order:

1. HDR Engineering, Inc.
2. HNTB Corporation
3. Parsons Transportation Group
4. TranSystems Corporation
5. WSP USA, Inc.

Three (3) proposals were determined to be outside of the competitive range and were not included for further consideration. Proposers who were outside the

competitive range did not clearly demonstrate their experience or projects and availability of key personnel was limited.

After the initial reviews and discussion of the scores, the PET team determined that interviews with the five firms within the competitive range were not necessary.

Qualifications Summary of Recommended Firms

HDR Engineering, Inc.

HDR Engineering, Inc., is an architectural, engineering and consulting firm. HDR Engineering, Inc.'s proposal showed expertise in a wide range of services. Some of their areas of expertise are in highways, arterial projects, planning, technology, environmental, transit, structures, highway, roadways, construction management services, and a skilled team of project personnel.

HDR Engineering, Inc.'s proposal demonstrated experience in transportation planning work that includes corridor studies, transit alternatives analysis, strategic plan development, policy development, project prioritization and financial analysis. Their planning expertise covers the full range of rail modes, including urban streetcar, heavy rail, hybrid rail, commuter rail and intercity rail. In addition, their staff demonstrated they were familiar with both the Federal Transit Administration (FTA) and the Federal Railroad Administration (FRA).

HNTB Corporation

Founded in 1914, HNTB has been involved in planning, engineering, environmentally clearing and producing plans, specifications and estimates for highway and bridge structures in Southern California. HNTB Corporation has numerous offices across the United States and has designed many roads, airports bridges, tunnels, rail and transit systems.

In their proposal, HNTB described their experience with transportation projects such as planning, engineering, environmental, specifications & estimates and highway improvements. They demonstrated how they would address challenges of delivering projects from planning through construction, while working with stakeholders and communities. In addition, HNTB has worked on multiple Los Angeles County projects such as SR710/North Study Alternatives Analysis, I-605 /Beverly Boulevard Interchange Improvements, and I-105 Express Lanes PA/ED.

Parsons Transportation Group

Serving Los Angeles since 1944, Parsons is one of the largest engineering and construction companies with more than 15,000 employees worldwide. Their highway experience consists of planning, design, and program/construction management of more than 10,000 miles of freeways and 4,500 bridges throughout the world.

Parson's proposal demonstrated experience in all phases of support services, Feasibility Studies, Alternatives Analysis, and environmental services. In addition, Parsons has delivered multiple Task Orders, Feasibility Studies, Alternatives Analysis, PA/ED, PS&E, Managed Lanes, program management, and construction management services worth more than $10 billion throughout Southern California.

TranSystems Corporation

TranSystems has been focused on helping clients solve transportation challenges since its inception. TranSystems has provided engineering and architectural planning, design and construction solutions to enhance the movement of goods and people across today's integrated transportation infrastructure.

In their proposal, TranSystems established that they can be a key resource for Metro Highway planning. They have performed work on over 100 tasks order for Metro and Caltrans District 7. TranSystems offers a wide-range and experience in all modes of transportation in the fields of highway planning, analysis and implementation experience working with local, State and Federal agencies.

WSP USA, Inc.

WSP USA, Inc., is an engineering and professional services firm founded in 1885 and has over 600 staff in Southern California. WSP has planned and designed multiple highway and multimodal transportation projects, including integrated highways, transit, and ITS projects. WSP brings a full range of services that includes delivering highway and arterial networks, a depth of personnel resources and a wealth of experience to help achieve project goals.

In the WSP proposal, it was demonstrated that the firm can help Metro achieve its multimodal highway improvement goals by providing transportation solutions. Some of these achievements are reflected in projects with public agencies such as Caltrans District 7, Metro, Ventura County Transportation Commission and San Diego Association of Governments (SANDAG).

Following is a summary of the PET evaluation scores:

	Firm	Weighted Average Score	Factor Weight	Average Score	Rank
1	**Parsons Transportation Group**				
2	Experience & Capabilities of the Firms on the Contractor's Team	85.50	40.00%	34.20	
3	Management Plan, Availability and Controls	86.43	30.00%	25.93	

4	Degree of Skills and Experience of Team Members	90.00	30.00%	27.00	
5	**Total**		**100.00%**	**87.13**	**1**
6	**HDR Engineering, Inc.**				
7	Experience & Capabilities of the Firms on the Contractor's Team	84.00	40.00%	33.60	
8	Management Plan, Availability and Controls	85.83	30.00%	25.75	
9	Degree of Skills and Experience of Team Members	86.27	30.00%	25.88	
10	**Total**		**100.00%**	**85.23**	**2**
11	**HNTB Corporation**				
12	Experience & Capabilities of the Firms on the Contractor's Team	80.50	40.00%	32.20	
13	Management Plan, Availability and Controls	84.83	30.00%	25.45	
14	Degree of Skills and Experience of Team Members	83.77	30.00%	25.13	
15	**Total**		**100.00%**	**82.78**	**3**
16	**TranSystems Corporation**				
17	Experience & Capabilities of the Firms on the Contractor's Team	74.75	40.00%	29.90	
18	Management Plan, Availability and Controls	78.93	30.00%	23.68	
19	Degree of Skills and Experience of Team Members	85.00	30.00%	25.50	
20	**Total**		**100.00%**	**79.08**	**4**
21	**WSP USA, Inc.**				
22	Experience & Capabilities of the Firms on the Contractor's Team	77.50	40.00%	31.00	
23	Management Plan, Availability and Controls	78.43	30.00%	23.53	
24	Degree of Skills and Experience of Team Members	81.27	30.00%	24.38	
25	**Total**		**100.00%**	**78.91**	**5**

C. Cost

Work will be performed through the issuance of separate task orders. Proposals submitted for each task order will be subject to an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and negotiation to determine the fairness and reasonableness of price.

D. Background on Recommended Contractors

HDR Engineering, Inc.

HDR Engineering, Inc., is an architectural, engineering and consulting firm whose areas of expertise include highways, arterial projects, planning, environmental, transit, highway, roadways, and construction management services.

HDR Engineering Project Manager has 24 years of experience in highway and arterial design with managing and delivering Project Study Reports, Project Approval and Estimates and Plans, Specification and Estimates for major freeway projects. In addition to the Project Manager's experience, the team has extensive experience working on Metro and Caltrans District 7 projects such as the I-405 Auxiliary Lanes Improvement Project, SR72/Whittier Boulevard Intersection Improvements, On-Call PID Services, and I-605 Corridor Improvement Project.

HNTB Corporation

HNTB has been involved in planning, engineering, environmentally clearing and producing plans, specifications and estimates for highways in Southern California. HNTB has worked with Riverside County Transportation Commission, Orange County Transportation Authority, San Bernardino County Transportation Authority, and Metro.

The proposed Project Manager has over 20 years of project management experience. The knowledge and experience the Project Manager brings working with Caltrans District 7 in the past may be a benefit to Metro in navigating the Caltrans approval process to facilitate time within budget completion for Metro' highway on-call program. In addition, HNTB Corporation demonstrated experience in transportation planning, engineering, specifications and estimates and environmental clearing.

Parsons Transportation Group

Parsons is one of the largest engineering and construction companies with more than 15,000 employees worldwide. Parsons has a diverse range of experience working on complex projects and with stakeholders such as Caltrans, Federal Highway Administration, Councils of Government, Corridor Cities and Resource Agencies.

The Parsons Project Manager has decades of experience including over 22 years working with Caltrans. In addition, the Project Manager has experience working with construction oversight, contractor management, project planning and development, goal setting, environmental, public outreach and public relations, coordination and regular meetings with multiple federal, state, and local agencies and stakeholders.

TranSystems Corporation

TranSystems focuses on helping clients solve transportation challenges and provides engineering and planning, design and construction solutions. TranSystems

Corporation has delivered on over 100 task orders throughout Southern California for Caltrans and Metro's transportation projects.

The Project Manager has over 40 years of experience working on transportation projects totaling $2.1 billion in his career. TranSystems' Project Manager has extensive knowledge of Metro and Caltrans requirements, approval processes, procedures, design guideline and State and Federal regulations. In addition, the Project Manager has knowledge and understanding of key stakeholders and local agencies.

WSP USA, Inc.

WSP USA, Inc., is an engineering and professional services firm that has planned and designed highway and multimodal transportation projects, including integrated highways, transit, and ITS projects. WSP provides services that include highway and arterial networks, and a depth of personnel resources.

The proposed Project Manager has 25 years of experience managing, and delivering projects for Metro, Caltrans District 7, Riverside Transportation Commission and other public agencies. The Project Manager has delivered all phases of project development for Caltrans District 7, arterial projects including the I-405 Auxiliary Lange PA/ED, I-105 ExpressLanes PS&E and I-15 Smart Freeways Design and Implementation Pilot Project.

DEOD SUMMARY

MULTIMODAL HIGHWAY PROGRAM ON-CALL/PROJECT & PROGRAM DELIVERY SUPPORT SERVICES
AE89212000 through AE89212004

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established an overall 33% Small Business Enterprise/Disabled Veterans Business Enterprise (SBE/DVBE) goal, inclusive of a 30% SBE goal and 3% DVBE goal for this Task Order Contract. All primes met or exceeded the SBE and DVBE goal.

In response to a specific on-call Task Order request with a defined scope of work, HDR Engineering, Inc., HNTB Corporation, Parsons Transportation Group, TranSystems Corporation, and WSP USA, Inc. will be required to identify SBE/DVBE subcontractor activity and actual dollar value commitments for that Task Order. Overall SBE/DVBE achievement in meeting the commitments will be determined based on cumulative SBE/DVBE participation of all Task Orders awarded.

Small Business Goal	**30% SBE 3% DVBE**	**Small Business Commitment**	**30% SBE 3% DVBE**

Prime: HDR Engineering, Inc.

	Subcontractors	**SBE**	**DVBE**
1.	Architectural Engineering Technology, Inc.	X	
2.	Arellano Associates	X	
3.	Craftwater Engineering, Inc.		X
4.	D'Leon Consulting Engineers	X	
5.	Duke Cultural Resources Management, LLC	X	
6.	Earth Mechanics	X	
7.	Environmental Review Partners, Inc.	X	X
8.	FMF Pandion	X	X
9.	Geo-Advantec, Inc.	X	
10.	2R Drilling, Inc.	X	
11.	Synergy Traffic Control	X	X
12.	GPA Consulting	X	
13.	Guida Surveying, Inc.	X	
14.	Intueor Consulting, Inc.	X	
15.	Kroner Environmental Services	X	
16.	Lin Consulting, Inc.	X	
17.	MA Engineering	X	X

18.	NCM Engineering Corp	X	
19.	PacRim Engineering, Inc.	X	
20	T&T Public Relations, Inc.	X	
21.	Tatsumi and Partners, Inc.	X	
22.	V&A Inc.	X	
23.	Value Management Strategies, Inc.	X	
24.	Wagner Engineering & Survey, Inc.	X	
	TOTAL COMMITMENT	**35%**	**3%**

Prime: HNTB Corporation

	Subcontractors	**SBE**	**DVBE**
1.	Architectural Engineering Technology, Inc.	X	
2.	Calvada Surveying, Inc.		X
3.	D'Leon Consulting Engineers	X	
4.	Duke Cultural Resources Management, LLC	X	
5.	Entech Northwest, Inc.	X	
6.	Epic Land Solutions, Inc.	X	
7.	FMF Pandion	X	X
8.	FPL and Associates, Inc.	X	
9.	Geo-Advantec, Inc.	X	
10.	2R Drilling	X	
11.	Synergy Traffic Control	X	X
12.	GPA Consulting	X	
13.	Irvine Global Consulting, Inc.	X	
14.	MA Engineering	X	X
15.	Mindhop, Inc.	X	
16.	NCM Engineering Corp	X	
17.	SHA Analytics, LLC	X	
18.	System Metrics Group, Inc.	X	
19.	Tatsumi and Partners, Inc.	X	
20.	Value Management Strategies, Inc.	X	
21.	Wagner Engineering & Survey, Inc.	X	
22.	Wiltec	X	
	TOTAL COMMITMENT	**30%**	**3%**

Prime: Parsons Transportation Group

	Subcontractors	SBE	DVBE
1.	ABBA Project Management		X
2.	Advanced Civil Technologies	X	
3.	Advantec Consulting Engineer, Inc.	X	
4.	Architectural Engineering Technology, Inc.	X	
5.	Arellano Associates	X	
6.	Calvada Surveying, Inc.		X
7.	Chen Ryan Associates, Inc.	X	
8.	Earth Mechanics	X	
9.	Geo-Advantec, Inc.	X	
10.	2R Drilling, Inc.	X	
11.	GPA Consulting	X	
12.	Guida Surveying, Inc.	X	
13.	Intueor Consulting, Inc.	X	
14.	Irvine Global Consulting, Inc.	X	
15.	JMDiaz, Inc.	X	
16.	MA Engineering	X	X
17.	Media Arts LLC	X	
18.	Mindhop, Inc.	X	
19.	NCM Engineering Corp.	X	
20.	OhanaVets, Inc.	X	X
21.	SHA Analytics, LLC	X	
22.	Sommer Engineering Inc.	X	
23.	System Metrics Group, Inc.	X	
24.	Synergy Traffic Control	X	X
25.	Value Management Strategies	X	
26.	ZMAssociates Environmental Corporation		X
	TOTAL COMMITMENT	**30%**	**3%**

Prime: TranSystems Corporation

	Subcontractors	SBE	DVBE
1.	A/E Tech LLC	X	
2.	Advantec Consulting Engineers, Inc.	X	
3.	Arellano Associates LLC	X	
4.	Advanced Civil Technologies	X	
5.	Calvada Surveying, Inc.		X
6.	D'Leon Consulting Engineers	X	
7.	D R Consultants & Designers, Inc.	X	
8.	Duke Cultural Resources Management, LLC	X	
9.	Earth Mechanics	X	
10.	Epic Land Solutions, Inc.	X	
11.	FPL and Associates, Inc.	X	
12.	Geo-Advantec, Inc.	X	
13.	2R Drilling, Inc.	X	
14.	Synergy Traffic Control	X	X
15.	GPA Consulting	X	
16.	Guida Surveying, Inc.	X	
17.	Hout Engineering	X	
18.	Intueor Consulting, Inc.	X	
19.	MA Engineering		X
20.	OhanaVets, Inc.		X
21.	PacRim Engineering, Inc.	X	
22.	SHA Analytics, LLC	X	
23.	System Metrics Group, Inc.	X	
24.	Tatsumi and Partners, Inc.	X	
25.	Value Management Strategies, Inc.	X	
	TOTAL COMMITMENT	**30%**	**3%**

Prime: WSP USA, Inc.

	Subcontractors	SBE	DVBE
1.	Advanced Civil Technologies	X	
2.	Advantec Consulting Engineer, Inc.	X	
3.	Arellano Associates LLC	X	
4.	AYCE, Inc.	X	
5.	Conaway Geomatics		X
6.	D'Leon Consulting Engineers	X	
7.	Earth Mechanics	X	
8.	Epic Land Solutions, Inc.	X	
9.	Geo-Advantec, Inc.	X	
10.	2R Drilling, Inc.	X	
11.	Synergy Traffic Control	X	X

12.	Guida Surveying, Inc.	X	
13.	Intueor Consulting, Inc.	X	
14.	Lin Consulting Inc.	X	
15.	MA Engineering	X	X
16.	Monument ROW	X	
17.	NCM Engineering Corp	X	
18.	OhanaVets, Inc.	X	X
19.	Sapphos Environmental, Inc.	X	
20.	SHA Analytics, LLC	X	
21.	System Metrics Group, Inc.	X	
22	Tatsumi and Partners, Inc.	X	
23.	The Alliance Group Enterprise, Inc.	X	
24.	VCS Environmental	X	
25.	Value Management Strategies, Inc.	X	
	TOTAL COMMITMENT	**30%**	**3%**

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of $2.5 million.

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2022-0723, **File Type:** Motion / Motion Response **Agenda Number:** 19.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 16, 2022

SUBJECT: SR-14 TRAFFIC SAFETY IMPROVEMENTS PROJECT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the SR-14 Traffic Safety Improvements Project.

ISSUE

In August 2022, the Board approved Motion 10 (Attachment A), authored by Directors Najarian, Butts, and Barger, which asked the CEO to direct staff to work with Caltrans to find a path forward to correct non-standard freeway configurations at 3 locations along State Route 14 (SR-14), including the development of a funding plan for the environmental clearance phase of the project, and to provide monthly progress updates to the Board.

BACKGROUND

In January 2019, the North County Transportation Coalition (NCTC), a Joint Powers Authority (JPA) consisting of the unincorporated areas of North Los Angeles County (5th District), City of Palmdale, City of Lancaster, and City of Santa Clarita, initiated a planning effort to evaluate potential traffic safety improvements on SR-14, through the North Los Angeles County region.

In collaboration with NCTC, the California Department of Transportation (Caltrans) prepared a Traffic Safety and Operational Analysis Report (TSOAR) to examine the operational conditions on the SR-14, from Interstate 5 (I-5) to Pearblossom Highway/ Angeles Crest Highway. This study identified safety, operational and environmental benefits that would result from adding a general-purpose lane between the bottleneck gaps.

Within the study limits, the number of lanes on SR-14 fluctuate roadway between 2 to 3 lanes in each direction. These lane “drops” increase the number of merging conflicts, resulting in sideswipe, and rear-end collisions. Fatal and fatal-plus-injury crash rates on both northbound and southbound SR-14 exceed the state average. The fatal-plus-injury and total accident rates for both northbound and southbound direction increase at the lane “drop” locations, especially in dark conditions. The additional lanes evaluated in the TSOAR address the higher than state average for fatal and fatal-

plus-injury rates in the following freeway segments in order of prioritization:

Southbound SR-14
1. Golden Valley Road Off-ramp to Newhall Avenue Under Change (UC)
2. Agua Dulce Canyon Road Off-ramp to Sand Canyon Road Over Change (OC)
3. Pearblossom Highway to Escondido Canyon Road OC

Northbound SR-14
1. Newhall Avenue UC to Golden Valley Road
2. Sand Canyon Road OC to Soledad Canyon Road
3. Puritan Mine Road UC to Sierra Highway OC

Caltrans followed the TSOAR with a programming report, the Project Study Report-Project Development Support (PSR-PDS), completed in August 2021. However, due to budget constraints, only three of the six segments were analyzed in the PSR-PDS. Proposed improvements for these three segments, referenced in Motion 10, are now ready for the next phase of project development, i.e., environmental clearance:

Southbound SR-14
1. Golden Valley Road Off-ramp to Newhall Avenue UC
2. Agua Dulce Canyon Road Off-ramp to Sand Canyon Road OC

Northbound SR-14
1. Newhall Avenue UC to Golden Valley Road

In June 2022, the Metro Board adopted a set of Objectives for Multimodal Highway Investment. These objectives commit Metro to a holistic and multimodal approach to highway planning, accounting for the unique mobility needs and priorities of the subregions and addressing historic and potential impacts to the quality of life of adjacent communities. These objectives will guide the development of improvements along SR-14. For example, the environmental document will include evaluation of multi-modal transportation options within the study area and multiple opportunities for meaningful community engagement. Furthermore, the design of any freeway improvements will be sensitive to local context/environment and avoid or minimize the need for property acquisition.

DISCUSSION

Findings

As of October 2022, four coordination meetings have been held between Metro, Caltrans, and NCTC to develop an action plan for the environmental clearance. Coordination with NCTC has resulted in a better understanding of critical concerns that span the Project's limits. Community input will be integrated during the environmental phase of the project. As a result of that coordination, the following path forward was established:

1) To address traffic safety concerns, Caltrans has identified a series of short, middle, and long-term safety improvements along SR-14. Caltrans is immediately proceeding with implementing

short-term safety improvements, including horizontal alignment signs, roadway conditions, and vertical grade signs. Mid-term safety improvements will include alignment delineation and enhanced pavement markers. Long-term safety improvements will include rumble strips, upgrading concrete median barriers, and upgrading overhead signs. The various improvements have been evaluated using vehicle accident/crash patterns in the area.

2) To advance the improvements referenced in Motion 10, Metro will procure a professional services contract to develop an environmental document through the Multimodal Highway Program On-Call contract (subject to Board approval in December 2022). Consistent with Metro's Objectives for Multimodal Highway Investment, the environmental document will evaluate highway geometric and safety improvements (identified by Caltrans in the PSR-PDS and as described in item 1), as well as multi-modal elements. A draft scope of work for the environmental document is already under development in collaboration with Caltrans and NCTC. Major considerations in the environmental review of the project will be regional mobility, system performance, multimodal efficiency, greenhouse gas (GHG) emissions, safety, and equity. Regarding GHG emissions, a major consideration will be Senate Bill (SB) 743, which requires projects to mitigate or reduce total project-generated automobile travel to meet the State's emission reduction goals. Metro is developing a framework to mitigate VMT impact from highway projects on the State Highway System (SHS) in Los Angeles County. The program will identify multi-modal elements to incorporate into highway projects or fund alternative projects/programs to reduce VMT and correlated greenhouse gas (GHG) emissions. Metro staff and stakeholders will select a methodology for quantifying VMT in the winter of 2022, evaluate mitigation criteria, tool development, and select a mitigation framework in the summer/fall of 2023. The environmental document will be funded by available Measure R highway funds for the North County sub-region.

3) Caltrans is also making progress in identifying the necessary funding for the Project Initiation Document (PID) of the three segments that were identified in the TSOAR but not evaluated in the PSR-PDS that was completed in August 2022 due to funding restrictions.

EQUITY PLATFORM

A majority of the cities of Lancaster and Palmdale are Equity Focus Communities, as are some areas in the City of Santa Clarita. Driving on the SR-14 is the primary method by which these communities access the Los Angeles Basin. Safety improvements to SR-14 are anticipated to benefit drivers to and from these communities. The Project Development Team (PDT) will be inclusive of community members for the selection of methodology and development throughout the environmental clearance phase of the Project.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This project supports strategic plan goal #1: Provide high-quality options that enables people to spend less time traveling.

Goal 1.1. The SR-14 Traffic Safety Improvements Project will expand the transportation system as responsibly and quickly as possible as approved in Measure R and M to strengthen

LA County's Transportation system.

NEXT STEPS

In anticipation of Board approval of the Multimodal Highway Program On-Call contract, staff will finalize the scope of work, schedule, and detailed cost estimate for the environmental document. The new On-Call contract will be presented at the November/December Board meeting. Contingent upon the Board's approval, a task order can be issued shortly after. Additionally, staff will start drafting the necessary Caltrans Cooperative Agreement and continue coordination with Caltrans and NCTC for the development of these documents. Metro staff has and will continue to coordinate with Caltrans and NCTC throughout the project development process, including also for the development of a community engagement plan for the environmental phase.

ATTACHMENTS

Attachment A - SR-14 Traffic Safety Improvements Motion 10

Prepared by: Isidro Panuco, Sr. Manager, (213) 547-4372
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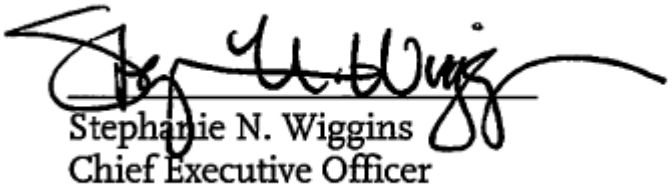

Stephanie N. Wiggins
Chief Executive Officer

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2022-0520, **File Type:** Motion / Motion Response **Agenda Number:** 10.

PLANNING AND PROGRAMMING COMMITTEE
AUGUST 17, 2022

Motion by:

DIRECTORS NAJARIAN, BUTTS, AND BARGER

SR 14 Traffic Safety Improvement Project Motion

In 2001, the MTA board approved an Antonovich/Roberts motion to conduct a combined highway study for North County. About 1 in 3 people in the study area lived and still live in equity focused communities. A large labor pool relies on the SR 14 to get to and from work, the corridor also serves as the only truck route for goods movement between North County and the greater Los Angeles area

Completion of the study in 2004 produced the SR-14 Major Impact Study (MIS). The study concluded that SR 14 had unsafe, sub-standard configurations that have led to 1,800 collisions and more than 30 deaths between 2014 and 2018. In broader terms, the sub-standard lane drop configuration creates bottlenecks that have contributed to more accidents and deaths per capita than other facilities in the county and state. It has been 18 years since the MIS was released and it is time to fix these life-threatening conditions.

Six unsafe and sub-standard freeway locations were identified in the study for correction. Currently, 3 of the locations are ready for environmental clearance . Cost sharing between Caltrans and MTA is $40-$60 million. The North County Transportation Coalition has contributed $4.7 million towards this effort.

SUBJECT: SR 14 TRAFFIC SAFETY IMPROVEMENT PROJECT MOTION

RECOMMENDATION

APPROVE Motion by Directors Najarian, Butts, and Barger that the CEO direct staff to work with Caltrans to find a path forward to correct sub-standard configurations for the 3 locations ready for environmental clearance, including a funding plan, and provide monthly progress updates to the Board beginning October 2022.