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

Agenda - Final

Wednesday, June 14, 2023

10:30 AM

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Planning and Programming Committee

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Hilda Solis
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Gloria Roberts (Interim), non-voting member
Stephanie Wiggins, Chief Executive Officer

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(ALSO APPLIES TO BOARD COMMITTEES)

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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.

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- 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
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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

Live Public Comment Instructions:

Live public comment can be given by telephone or in-person.

The Committee Meeting begins at 10:30 AM Pacific Time on June 14, 2023; 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 se pueden dar por telefono o en persona.

La Reunion de la Junta comienza a las 10:30 AM, hora del Pacifico, el 14 de Junio de 2023. Puedes unirte a la llamada 5 minutos antes del comienzo de la junta.

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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."

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Board Administration

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Los Angeles, CA 90012

CALL TO ORDER

ROLL CALL

APPROVE Consent Calendar Items: 8, 9, and 10.

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

CONSENT CALENDAR

8. **SUBJECT: MEASURE R MULTIMODAL HIGHWAY SUBREGIONAL PROGRAMS UPDATE** [2023-0257](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING \$25,788,000 in additional programming and funding changes within the capacity of Measure R Multimodal Highway Subregional Programs (see Attachment A for updated project list):
- Arroyo Verdugo Operational Improvements
 - Las Virgenes Malibu Operational Improvements
 - South Bay I-405, I-110, I-105 & SR-91 Improvements
 - Gateway Cities I-605 Corridor “Hot-Spots” Interchange Improvements
 - Gateway Cities I-710 South Early Action
 - North Los Angeles County SR-138 Safety Enhancements
 - North Los Angeles County I-5/SR-14 Safety Enhancements
- B. APPROVING the deobligation of \$21,504,000 of previously approved Measure R Multimodal Highway Subregional Program funds for re-allocation to other existing Board-approved Measure R projects as shown in Attachment A; and
- C. AUTHORIZING the CEO or their designee to negotiate and execute all necessary agreements for the Board-approved projects.

Attachments: [Attachment A - Projects Receiving Measure R Funds](#)

9. **SUBJECT: FUNDING AWARD RECOMMENDATION FOR FEDERAL TRANSIT ADMINISTRATION SECTION 5310 GRANT PROGRAM** [2023-0284](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING the recommended Section 5310 awards totaling \$13,891,798 as shown in Attachments A, B and C, available to Metro through the Federal Transit Administration (FTA) Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities Program;
- B. AUTHORIZING the Chief Executive Officer (CEO) or their designee to negotiate and execute pass-through funding agreements with the subrecipient agencies receiving awards;
- C. DELEGATING to the CEO or their designee the authority to administratively approve minor changes to the scope of previously approved Section 5310 funding awards;
- D. CERTIFYING that the Section 5310 funds are fairly and equitably allocated to eligible subrecipients and, where feasible, projects are coordinated with transportation services assisted by other federal departments and agencies; and
- E. CERTIFYING that the Section 5310 funding is included in the locally developed 2021-2024 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") that was developed and approved through a process that included participation by seniors and individuals with disabilities, as well as by representatives of public, private, and nonprofit transportation and human service providers, and other members of the public.

Attachments: [Attachment A- Los Angeles-Long Beach-Anaheim Urbanized Area](#)
[Attachment B- Lancaster-Palmdale Urbanized Area](#)
[Attachment C- Santa Clarita Urbanized Area](#)
[Attachment D- Evaluation Criteria](#)

**10. SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM
UPDATE - CENTRAL CITY SUBREGION**

[2023-0330](#)

RECOMMENDATION

CONSIDER:

- A. APPROVING programming of \$746,646 within the capacity of Measure M Multi-Year Subregional Program (MSP) - Active Transportation, First/Last Mile and Mobility Hubs Program, as shown in Attachment A;
- B. REPROGRAMMING of projects previously approved to meet environmental, design, right-of-way, and construction time frames, as shown in Attachment A; and

-
- C. AUTHORIZING the Chief Executive Officer (CEO) or their designee to negotiate and execute all necessary agreements and/or amendments for approved projects.

Attachments: [Attachment A - Active Transportation First Last Mile and Mobility Hubs Projects](#)

NON-CONSENT

11. **SUBJECT: UPDATE ON THE LONG BEACH-EAST LA CORRIDOR
 TASK FORCE**

[2023-0019](#)

RECOMMENDATION

RECEIVE AND FILE report on the Long Beach-East LA Corridor Task Force.

Attachments: [Attachment A - September 2022 Hahn Solis Dutra Motion](#)
 [Attachment B - May 2021 Motions 47 and 48](#)
 [Attachment C - May 2022 Hahn Solis Mitchell Dutra Motion](#)
 [Attachment D - LB-ELA Corridor Task Force Slide Deck](#)
 [Attachment E - Initial List of Projects and Programs](#)
 [Attachment F - Categories and Subcategories of Projects and Programs](#)
 [Attachment G - Final Evaluation Criteria](#)
 [Attachment H - Letter from CEHAJ re Health Criteria](#)
 [Attachment I - Summary of Health Considerations for Evaluative Criteria](#)
 [Attachment K - April 2023 I-710 Tour Information and Roster](#)
 [Attachment J – Grant Awards and Activities for LB-ELA Corridor Projects
Presentation](#)

12. **SUBJECT: LONG BEACH-EAST LOS ANGELES CORRIDOR ZERO
 EMISSION TRUCK (ZET) PROGRAM STATUS UPDATE**

[2023-0294](#)

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to program up to \$3 million of the Board authorized \$50 million seed funding programmed for the LB-ELA Corridor ZET Program as Metro's contribution to leverage federal and regional funds contingent upon the demonstration of full project funding; and
- B. RECEIVING AND FILING the report on updates for the Long Beach-East Los Angeles (LB-ELA) Corridor Zero Emission Truck (ZET) Program.

-
- Attachments:** [Attachment A - October 2021 Hahn Dutra Motion](#)
[Attachment B - LB-ELA Zero Emission Truck Program Principles](#)
[Attachment C - LB-ELA ZET Program Preliminary Performance Measures](#)
[Attachment D - Clean Truck Technology Comparative Report](#)
[Presentation](#)

13. SUBJECT: MEASURE M 3% LOCAL CONTRIBUTION ADDITIONAL [2023-0202](#)
GUIDELINES REVISIONS

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING a report back on Motion 10.1 (Attachment A);
and
- B. AUTHORIZING for public review and comment the release of the
revised Measure M Guidelines, Section VIII - 3% Local Contribution to
Major Transit Projects (Attachment B).

- Attachments:** [Attachment A - Motion 10.1](#)
[Attachment B - Measure M 3% Local Contribution Guidelines Draft Revisions](#)
[Attachment C - Motion 35](#)
[Attachment D - 3% Contribution Fact Sheet](#)

SUBJECT: GENERAL PUBLIC COMMENT [2023-0367](#)

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



Board Report

File #: 2023-0257, File Type: Program

Agenda Number: 8.

PLANNING AND PROGRAMMING COMMITTEE JUNE 14, 2023

SUBJECT: MEASURE R MULTIMODAL HIGHWAY SUBREGIONAL PROGRAMS UPDATE

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING \$25,788,000 in additional programming and funding changes within the capacity of Measure R Multimodal Highway Subregional Programs (see Attachment A for updated project list):
- Arroyo Verdugo Operational Improvements
 - Las Virgenes Malibu Operational Improvements
 - South Bay I-405, I-110, I-105 & SR-91 Improvements
 - Gateway Cities I-605 Corridor “Hot-Spots” Interchange Improvements
 - Gateway Cities I-710 South Early Action
 - North Los Angeles County SR-138 Safety Enhancements
 - North Los Angeles County I-5/SR-14 Safety Enhancements
- B. APPROVING the deobligation of \$21,504,000 of previously approved Measure R Multimodal Highway Subregional Program funds for re-allocation to other existing Board-approved Measure R projects as shown in Attachment A; and
- C. AUTHORIZING the CEO or their designee to negotiate and execute all necessary agreements for the Board-approved projects.

ISSUE

The Measure R Multimodal Subregional Programs update allows Metro staff and each lead agency to revise project priorities and amend budgets for implementing the Measure R Multimodal subregional projects. The attached updated project lists include projects that have received prior Board approval and proposed changes related to schedules, scope, and funding allocations for existing and new projects. The Board’s approval is required as the updated project lists serve as the basis for Metro to enter into agreements with the respective implementing agencies.

BACKGROUND

Measure R Expenditure Plan Lines 26, 31, 32, 33, 37, and 38 allocate funds for multimodal highway operational improvement subfund programs. Metro staff leads the implementation and development of multi-jurisdictional and regionally significant highway and arterial projects. Staff also lead projects on behalf of local jurisdictions at their request or assists in developing projects with these subfunds.

Additionally, the Compete Streets and Highways staff manage grants in the Arroyo Verdugo, Las Virgenes Malibu, Gateway, North Los Angeles County, and South Bay subregions to fund transportation improvements developed and prioritized locally. Lead agencies develop the scope and type of improvements. Metro staff reviews the project for eligibility and compliance with the Board-adopted guidelines and objectives for multimodal highway investments (File 2022-0302). To be eligible for funding, projects must reduce congestion, resolve operational deficiencies and improve safety or multimodal access through pedestrian and bicyclist improvements.

As the project lead for regionally significant multi-jurisdictional projects or grant manager to locally prioritized projects, Metro staff works with cities, subregions, and grant recipients to scope and deliver the projects. Updates on the multimodal highway programs are presented to the Board semi-annually and on an as-needed basis.

DISCUSSION

The Measure R Expenditure Plan does not define multimodal subregional highway capital projects individually. Eligible projects are identified by project sponsors and validated/approved by Metro staff for funding.

The changes in this update include \$25,788,000 in additional programming for projects in the Arroyo Verdugo, Las Virgenes Malibu, Gateway, and North Los Angeles County and South Bay subregions as detailed in Attachment A. A nexus determination has been completed for each new project.

All projects on the attached project lists are expected to provide operational benefits and meet the Board-adopted Highway Operational and Ramp/Interchange improvement guidelines and Objectives for Multimodal Highway Investments.

Arroyo Verdugo Operational Improvements

A total of \$117,015,000 has been programmed for projects in the subregion. This update includes funding adjustments for 3 existing projects and 1 new project.

Glendale

Scope change for MR310.25 - I-210 Soundwalls Project. The current project budget is \$8,020,000 and will fund only the environmental and design phases of the project.

Program an additional \$4,126,736 for MR310.62 - Downtown Glendale Signal Mobility

Improvements Project. The revised project budget is \$6,626,736. Additional funds are being programmed for the design and construction of detection, fiber, camera, communications hardware, battery-backup systems, and controllers that were not part of the original scope. The additional components will enable a more reliable and efficient synchronization and mobility improvement project.

Reprogram \$4,000,000 for MR310.65 - North Verdugo Road Improvements (Signal, Ped, Transit). The funds are being reprogrammed as follows: \$400,000 in FY23-24, \$300,000 in FY24-25, and \$3,300,000 in FY25-26. The project budget remains the same at \$5,000,000. Funds are being reprogrammed to match environmental, design, and construction timeframes.

Program \$1,216,440 for MR310.66 - HSIP Cycle 11 Local Match (Ped/Bike Improvements). The Measure R match to the HSIP grant is \$1,216,440. Funds will design pedestrian/bike signal improvements and upgrade median, bike lane, and pedestrian crossings.

Las Virgenes Malibu Operational Improvements

A total of \$173,668,000 has been programmed for projects in the subregion. This update includes funding adjustments for 3 existing projects and 1 new project.

Agoura Hills

Program \$5,472,000 for MR311.23 - Agoura Hills Greenway Project. The total Measure R allocation is \$5,472,000. At the February 2023 Board meeting (File 2022-0863), approved Measure M (MM5503.10) and R funds for this project. Funds will be used for the right-of-way and construction phases.

Malibu

Program an additional \$325,000 for MR311.27 - Pacific Coast Highway Intersection Improvements. The revised project budget is \$1,325,000. Funds are being programmed to match current construction cost estimates for the project.

Deobligate \$325,000 from MR311.16 - Pedestrian Signal Improvements on Pacific Coast Highway. Funds are being reprogrammed to project MR311.27 - Pacific Coast Highway Intersection Improvements. The funds are being deobligated to fund a higher priority transportation improvement.

Hidden Hills

Reprogram \$2,979,975 for MR311.34 - Long Valley Road/Valley Circle/US-101 On-Ramp Improvements. The funds are being reprogrammed to FY23-24 for a total allocation of \$3,232,000. The project budget remains unchanged at \$5,952,000. Funds are being reprogrammed to match environmental, design, right-of-way, and construction timeframes.

South Bay I-405, I-110, I-105 & SR-91 Improvements

A total of \$446,413,000 has been programmed for projects in the subregion. This update includes funding adjustments for 13 projects.

Caltrans

Deobligate \$1,000,000 from MR312.45 - PAED Integrated Corridor Management System (ICMS) on I-110 from Artesia Blvd to I-405. This project is no longer being pursued. Funds will be reprogrammed the subregion.

Metro

Deobligate \$7,000,000 from MR312.55 - I-405 Improvements from I-110 to Wilmington. The revised project budget is \$10,400,000. Funds are being reprogrammed to develop a state/federal grant match line item.

Program an additional \$8,000,000 for MR312.85 - South Bay I-405 Improvements - Local Match for State/Federal Grants. The revised project budget is \$22,000,000. This line item will support grant opportunities for two I-405 projects, MR312.30 and MR312.55.

Gardena

Program an additional \$728,000 for MR312.02 - Traffic Signal Reconstruction on Vermont at Redondo Beach Blvd and Rosecrans Ave. The revised project budget is \$2,228,000. Funds are being programmed to match current construction cost estimates.

Program an additional \$2,305,000 for MR312.09 - Artesia Boulevard Arterial Improvements from Western Avenue to Vermont Avenue. The revised project budget is \$4,828,000. Funds are being programmed to match current construction cost estimates. Additionally, funds are being reprogrammed as follows: \$2,276,424.66 in FY23-24. The total programmed amount in FY23-24 is \$4,581,400. Funds are being reprogrammed to match design and construction timeframes.

Los Angeles County

Reprogram \$1,021,000 for MR312.52 - ITS: Improvements on South Bay Arterials. The funds are being reprogrammed as follows: \$111,000 in FY17-18, \$290,000 in FY20-21, and \$620,000 in FY22-23 to match environmental, design, and construction timeframes.

Reprogram \$2,000,000 for MR312.64 - South Bay Arterial System Detection Project. The funds are being reprogrammed as follows: \$600,000 in FY23-24 and \$1,400,000 in FY24-25 to match environmental, design, and construction timeframes.

Manhattan Beach

Reprogram \$699,860.08 for MR312.35 - Sepulveda Boulevard at Manhattan Beach Boulevard Intersection Improvements (NB, WB, EB left turn lanes and SB right turn lane). The project budget remains the same at \$2,046,000. The funds are being reprogrammed as follows: \$699,860.08 in

FY23-24 to match design, right-of-way, and construction timeframes.

Rancho Palos Verdes

Deobligate \$90,000 from MR312.39 - Western Avenue (SR-213) from Palos Verdes Drive North to 25th Street. Funds will be reprogrammed to the subregion.. The city is using Measure M to fund improvements on Western Avenue.

Port of Los Angeles

Program an additional \$2,980,000 for MR312.32 - SR-47/Vincent Thomas Bridge on/off ramp Improvements at Harbor Boulevard. The revised project budget is \$49,330,000. Additional funds are being programmed due to price escalations and are needed to match current construction cost estimates.

Redondo Beach

Program an additional \$1,000,000 for MR312.06 - Pacific Coast Highway Improvements from Anita Street to Palos Verdes Boulevard. The revised project budget is \$2,400,000. Additional funds are being programmed due to higher than anticipated right-of-way acquisition costs for the project.

Program an additional \$550,000 for MR312.20 - Aviation Boulevard at Artesia Boulevard Intersection Improvements (northbound right turn lane). The revised project budget is \$2,457,000. Additional funds are being programmed due to escalating right of way and construction costs.

Program an additional \$1,000,000 for MR312.75 - Kingsdale Avenue at Artesia Boulevard Intersection Improvements. The revised project budget is \$1,992,000. Additional funds are being programmed due to escalating construction costs.

Gateway Cities I-605 Corridor “Hot Spots” Interchange Improvements

A total of \$421,985,000 has been programmed for projects in the subregion. This update includes funding adjustments for 1 project.

Bellflower

Program an additional \$500,000 for MR315.33 - Lakewood Alondra Intersection Improvements. The revised project budget is \$1,502,000. Funds are being programmed to match the construction bids.

Gateway Cities I-710 South Early Action

A total of \$306,378,000 has been programmed for projects in the subregion. This update includes funding adjustments for 4 projects.

Metro

Deobligate \$2,660,000 from I-710 ITS/Air Quality Early Action. Funds are being deobligated and reprogrammed to I-710 Integrated Corridor Management Project to fund environmental and design phases.

Program an additional \$2,660,000 for MR306.05 - I-710 Integrated Corridor Management (ICM) Project. The revised project budget is \$8,760,000. Funds are being programmed to complete environmental and design phases.

Program an additional \$6,000,000 for MR306.62 - Willow Street Corridor - Walnut Avenue to Cherry Congestion Relief Project. The revised project budget is \$7,312,050. Funds are being programmed to fund right of way and construction phases.

South Gate

Project MR306.24 - Reconfiguration Firestone Boulevard On-Ramp to I-710 S/B Freeway. This project is changing lead agencies from Caltrans to the City of South Gate.

North Los Angeles County SR-138 Safety Enhancements

A total of \$200,000,000 has been programmed for projects in the subregion. This update includes funding adjustments for 4 projects.

Lancaster

Reprogram \$2,603,762 for MR330.02 - SR-138 (SR-14) Avenue K Interchange. The funds are being reprogrammed to FY24-25. The project budget remains the same at \$8,924,200. Funds are being reprogrammed to match environmental, design, right-of-way, and construction timeframes.

Reprogram \$8,934,726 for MR330.06 - SR-138 (SR-14) Avenue M Interchange. The funds are being reprogrammed to FY24-25. The project budget remains the same at \$13,623,000. Funds are being reprogrammed to match environmental, design, right-of-way, and construction timeframes.

Palmdale

Program an additional \$10,429,092 for MR330.08 - SR-138 Palmdale SB 14 Ramps. Funds are being programmed as follows: \$5,000,000 in FY23-24 and \$5,429,092 in FY24-25. Additionally, this action is reprogramming \$10,946,622 to FY23-24 for a total of \$16,375,714. The revised project budget is \$35,429,092. Additional funds are being programmed to match construction cost estimates, and existing funds are being reprogrammed to match current design and construction timeframes.

Deobligate \$10,429,092 from MR330.11- SR-138 Avenue N Overcrossing. The revised project budget is \$9,570,908. Funds are being deobligated and reprogrammed to MR330.08 to match current construction costs.

North Los Angeles County I-5/SR-14 Safety Enhancements

A total of \$85,094,000 has been programmed for projects in the subregion. This update includes funding adjustments for 1 project.

Lancaster

Reprogram \$9,297,500 for MR330.02 - SR-138 (SR-14) Avenue K Interchange. The funds are being reprogrammed as follows: \$4,649,000 in FY24-25 and \$4,648,500 in FY25-26 to match environmental, design, right of way, and construction timeframes.

DETERMINATION OF SAFETY IMPACT

The multimodal subregional programs support the development of a safer transportation system that will provide high-quality multimodal mobility options to enable people to spend less time traveling.

FINANCIAL IMPACT

Approval of Recommendation A will not require an FY24 Budget amendment at this time. Metro staff will monitor the respective projects and adjust funding as required to meet project needs within the adopted FY24 budget, subject to the availability of funds.

is the highway projects are funded from the Measure R 20% Highway Capital subfund earmarked for the subregions. FY24 funds are allocated for Arroyo Verdugo Project No.460310 and Las Virgenes-Malibu Project No. 460311 under Cost Center 0442 in Account 54001 (Subsidies to Others).

For the South Bay subregion, FY24 funds are allocated in Cost Centers 0442, 4720, 4740, Accounts 54001 (Subsidies to Others), and 50316 (Professional Services) in Projects 460312, 461312, 462312, and 463312.

For the Gateway Cities Subregion, FY24 funding for the I-605 Corridor “Hot Spots” Projects is allocated to Project No. 460314, Cost Centers 4720, 0442, Account 54001 (Subsidies to Others), and account 50316 (Professional Services) in Projects 461314, 462314, 463314, 460345, 460348, 460350, 460351. I-710 Early Action Project funds have been budgeted in Project No. 460316 in Cost Center 0442, Account 54001 (Subsidies to Others) and also under 4634316; and 463516, 463616 in Account 50316 (Professional Services) in Cost Centers 4720 and 4740 are all included in the FY24 budget.

The remaining funds are distributed from the Measure R 20% Highway Capital Subfund via funding agreements to Caltrans and the cities of Palmdale and Lancaster in the FY24 budgets under Cost Center 0442 in Project No. 460330, Account 54001 (Subsidies to Others). For the North County Operational Improvements Projects (I-5/SR-14 Direct Connector Line #26), budgets are included in Project No. 465501, Cost Center 0442, Account 54001 (Subsidies to Others).

Moreover, programmed funds are based on estimated revenues. Since the Measure R Multimodal Highway Subregional Programs are multi-year programs with various projects, the Project Managers, the Cost Center Manager, the Sr. Executive Officer of Countywide Planning and Development -

Complete Streets and Highways and the Chief Planning Officer will be responsible for budgeting the costs in current and future years.

Impact to Budget

This action will not impact the approved FY24 budget. Staff will rebalance the approved FY24 budget as necessary to fund the identified priorities and revisit the budgetary needs using the quarterly and mid-year adjustment processes subject to the availability of funds.

The source of funds for these projects is Measure R 20% Highway Funds. This fund source is not eligible for transit operations or capital expenses.

EQUITY PLATFORM

This semi-annual update funds subsequent phases of Board-approved Highway Subsidy grants aligned with the Measure R Board-approved guidelines and the Objectives for Multimodal Highway Investments. Complete Streets and Highways staff have also provided technical assistance to Equity Focus Communities (EFCs) in various subregions. The Highway Subsidy Grants do not have a direct equity impact; rather it will allow for the development of equity opportunities via the development of transportation project improvements through city contracts that can reduce transportation disparities.

Each city and/or agency, independently and in coordination with their subregion, undertake their jurisdictionally determined community engagement process specific to the type of transportation improvement they seek to develop. These locally determined and prioritized projects represent the needs of cities. This update includes additional funding for the following EFC communities, Glendale, Los Angeles County, Gardena, City of Los Angeles, South Gate, Paramount, Lancaster, Vernon, Commerce, Maywood, Bell, Cudahy, Compton, and Long Beach.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports the strategic plan goal:

“Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.”

Goal 1.1. Approval of the multimodal highway subregional programs 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.

“Goal 4: Transform LA County through regional collaboration”

Goal 4.1. Metro will work closely with municipalities, council of governments, Caltrans to implement holistic strategies for advancing mobility goals”

ALTERNATIVES CONSIDERED

The Board may choose not to approve the revised project list and funding allocations. However, the option is not recommended as it will delay the development of locally prioritized improvements.

NEXT STEPS

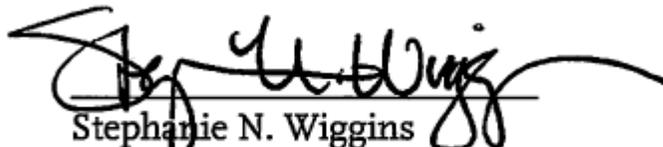
Metro's complete streets and highway staff will continue to work with the subregions to identify and deliver projects and execute grant agreements. Updates will be provided to the Board on a semiannual and as-needed basis.

ATTACHMENT

Attachment A - Projects Receiving Measure R Funds

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Stephanie N. Wiggins
Chief Executive Officer

MEASURE R MULTIMODAL HIGHWAY OPERATIONAL IMPROVEMENT PROJECTS

ATTACHMENT A

Agency	Project ID No.	PROJECT/LOCATION	Note	Prior Alloc	Alloc Change	Current Alloc	Prior Yr Program	FY2022-23	FY2023-24	FY2024-25	FY2025-26
Glendale	MR310.01	Fairmont Ave. Grade Separation at San Fernando Rd. (Construction) (Complete)		1,658.7	0.0	1,658.7	1,658.7				
Glendale	MR310.04	San Fernando/Grandview At-Grade Rail Crossing Imp. (Complete)		1,850.0	0.0	1,850.0	1,850.0				
Glendale	MR310.05	Central Ave Improvements / Broadway to SR-134 EB Offramp (Complete)		3,250.0	0.0	3,250.0	3,250.0				
Glendale	MR310.13	Glendale Narrows Bikeway Culvert		1,246.5	0.0	1,246.5	1,246.5				
Glendale	MR310.14	Verdugo Road Signal Upgrades (Complete)		557.0	0.0	557.0	557.0				
Glendale	MR310.16	SR-134 / Glendale Ave. Interchange Modification (Complete)		1,585.5	0.0	1,585.5	1,585.5				
Glendale	MR310.17	Ocean View Blvd. Traffic Signals Installation and Modification (Complete)		1,000.0	0.0	1,000.0	1,000.0				
Glendale	MR310.18	Sonora Avenue At-Grade Rail Crossing Safety Upgrade (Complete)		2,700.0	0.0	2,700.0	2,700.0				
Glendale	MR310.19	Traffic Signal Sync Brand / Colorado-San Fernando / Glendale-Verdugo (Complete)		340.9	0.0	340.9	340.9				
Glendale	MR310.20	Verdugo Rd / Honolulu Ave / Verdugo Blvd Intersection Modification (Complete)		397.3	0.0	397.3	397.3				
Glendale	MR310.21	Colorado St. Widening between Brand Blvd. and East of Brand Blvd. (Complete)		350.0	0.0	350.0	350.0				
Glendale	MR310.22	Glendale Narrows Riverwalk Bridge		600.0	0.0	600.0	600.0				
Glendale	MR310.24	Construction of Bicycle Facilities		244.3	0.0	244.3	244.3				
Glendale	MR310.25	210 Soundwalls Project	CHG	8,020.0	0.0	8,020.0	4,520.0	2,000.0	1,500.0		
Glendale	MR310.26	Bicycle Facilities, Phase 2 (Class III Bike Routes)		225.0	0.0	225.0	225.0				
Glendale	MR310.28	Pennsylvania Ave Signal at I-210 On/Off-Ramps		500.0	0.0	500.0	500.0				
Glendale	MR310.32	Regional Arterial Performance Measures (Call Match) F7321		100.0	0.0	100.0	100.0				
Glendale	MR310.34	Regional Bike Stations (Call Match) F7709		332.2	0.0	332.2	332.2				

MEASURE R MULTIMODAL HIGHWAY OPERATIONAL IMPROVEMENT PROJECTS

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Glendale	MR310.35	Signal Installations at Various Locations (Complete)		1,500.0	0.0	1,500.0	1,500.0				
Glendale	MR310.37	Verdugo Boulevard Traffic Signal Modification at Vahili Way and SR-2		1,450.0	0.0	1,450.0	1,450.0				
Glendale	MR310.39	Widening of SR-2 Fwy Ramps @ Mountain		1,200.0	0.0	1,200.0	150.0	1,050.0			
Glendale	MR310.40	Pacific Ave: Colorado to Glenoaks & Burchett St: Pacific To Central Street Improvements (Complete)		3,315.0	0.0	3,315.0	3,315.0				
Glendale	MR310.41	Doran St. (From Brand Blvd. to Adams St.)		1,450.0	0.0	1,450.0	1,450.0				
Glendale	MR310.42	Arden Ave. (From Highland Ave. to Kenilworth St.) (Complete)		623.2	0.0	623.2	623.2				
Glendale	MR310.43	Verdugo Rd. Street Improvements Project (Traffic Signal Modification)		1,650.0	0.0	1,650.0	1,650.0				
Glendale	MR310.47	Traffic Signals on Glenwood Rd. and Modificaitons on La Crescenta and Central Ave.		2,025.0	0.0	2,025.0	2,025.0				
Glendale	MR310.48	San Frenando Rd and Los Angeles Street Traffic Signal Installation & Intersection Modification		400.0	0.0	400.0	400.0				
Glendale	MR310.49	Traffic Signal Modification & Upgrades on Honolulu Ave		3,800.0	0.0	3,800.0	3,800.0				
Glendale	MR310.52	Traffic Signal Improvements at Chevy Chase Dr/California Ave/		2,500.0	0.0	2,500.0	2,500.0				
Glendale	MR310.54	Signal Mod on La Crescenta Ave and San Fernando Rd.		1,650.0	0.0	1,650.0	1,650.0				
Glendale	MR310.60	N. Verdugo Rd Signal Modifications (Glendale Community College to Menlo Dr at Canada Blvd)		1,100.0	0.0	1,100.0	1,100.0				
Glendale	MR310.61	Broadway Traffic Signal Modifications		1,650.0	0.0	1,650.0	1,650.0				
Glendale	MR310.62	Downtown Glendale Signal Mobility Improvements Project	CHG	2,500.0	4,126.7	6,626.7	2,500.0		4,126.7		
Glendale	MR310.63	South Central Avenue Improvements (Signal, Ped, Transit)		3,000.0	0.0	3,000.0	0.0	300.0	2,700.0		
Glendale	MR310.64	North Glendale Avenue Improvements (Signal, Ped, Transit)		4,000.0	0.0	4,000.0	0.0	400.0	3,600.0		
Glendale	MR310.65	North Verdugo Road Improvements (Signal, Ped, Transit)	REP	5,000.0	0.0	5,000.0	0.0	500.0	900.0	300.0	3,300.0
Glendale	MR310.66	HSIP Cycle 11 Local Match (Ped/Bike Improvements)	ADD	0.0	1,216.4	1,216.4	0.0		400.0	816.4	
		TOTAL GLENDALE		63,770.6	5,343.2	67,897.3	47,220.6	4,250.0	13,226.7	1,116.4	0.0

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Agency	Project ID No.	PROJECT/LOCATION	Note	Prior Alloc	Alloc Change	Current Alloc	Prior Yr Program	FY2022-23	FY2023-24	FY2024-25	FY2025-26	
Las Virgenes/Malibu Operational Improvements (expenditure line 32)					168,196.0	5,472.0	173,667.9	154,756.0	12,067.0	3,957.0	2,888.0	0.0
Westlake Village	MR311.01	Lindero Canyon Road Interchange, Phase 3A Design		443.7	0.0	443.7	443.7					
Westlake Village	MR311.02	Highway 101 Park and Ride Lot (Design Complete)		243.7	0.0	243.7	243.7					
Westlake Village	MR311.10	Rte 101/ Lindero Cyn. Rd. Interchange Improvements, Phase 3B,4B Construction (Complete)		3,251.0	0.0	3,251.0	3,251.0					
Westlake Village	MR311.18	Rte 101/ Lindero Cyn. Rd. Interchange Improvements, Phase 3A Construction		9,669.0	0.0	9,669.0	9,669.0					
Westlake Village	MR311.19	Highway 101 Park and Ride Lot (Complete)		4,943.6	0.0	4,943.6	4,943.6					
Westlake Village	MR311.21	Lindero Rd Sidewalk Extension		1,305.0	0.0	1,305.0	0.0	1,305.0				
TOTAL WESTLAKE VILLAGE					19,856.0	0.0	19,856.0	18,551.0	1,305.0	0.0	0.0	0.0
Agoura Hills	MR311.03	Palo Comado Interchange		10,450.0	0.0	10,450.0	10,450.0					
Agoura Hills	MR311.04	Agoura Road/Kanan Road Intersection Improvements		1,725.0	0.0	1,725.0	1,725.0					
Agoura Hills	MR311.05	Agoura Road Widening		37,250.0	0.0	37,250.0	37,250.0					
Agoura Hills	MR311.14	Kanan Road Corridor from Thousand Oaks Blvd to Cornell Road PSR		700.0	0.0	700.0	700.0					
Agoura Hills	MR311.15	Agoura Hills Multi-Modal Center		100.0	0.0	100.0	100.0					
Agoura Hills	MR311.23	Agoura Hills Project Greenway Project (MM5503.13)	ADD	0.0	5,472.0	5,472.0		5,472.0				
TOTAL AGOURA HILLS					50,225.0	5,472.0	55,697.0	50,225.0	5,472.0	0.0	0.0	0.0
Calabasas	MR311.06	Lost Hills Overpass and Interchange		35,500.0	0.0	35,500.0	35,500.0					
Calabasas	MR311.07	Mulholland Highway Scenic Corridor Completion (Complete)		4,389.8	0.0	4,389.8	4,389.8					
Calabasas	MR311.08	Las Virgenes Scenic Corridor Widening (Complete)		5,746.2	0.0	5,746.2	5,746.2					
Calabasas	MR311.09	Parkway Calabasas/US 101 SB Offramp (Complete)		214.0	0.0	214.0	214.0					
Calabasas	MR311.33	Park and Ride Lot on or about 23577 Calabasas Road (near Route 101) (Complete)		3,700.0	0.0	3,700.0	3,700.0					
Calabasas	MR311.12	Calabasas Traffic Signal System Upgrades and Synchronization		400.0	0.0	400.0	0.0		400.0			
Calabasas	MR311.13	Mulholland Highway Improvements Project - Old Topanga Canyon Road to City Limits (MM4401.11)		2,888.0	0.0	2,888.0	0.0			2,888.0		

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		TOTAL CALABASAS		52,838.0	0.0	52,838.0	49,550.0	0.0	400.0	2,888.0	0.0
Malibu	MR311.11	PCH Signal System Improvements from John Tyler Drive to Topanga Canyon Blvd		14,600.0	0.0	14,600.0	14,600.0				
Malibu	MR311.24	Malibu/Civic Center Way Widening		5,600.0	0.0	5,600.0	5,600.0				
Malibu	MR311.26	PCH-Raised Median and Channelization from Webb Way to Puerco Canyon Road		6,950.0	0.0	6,950.0	6,950.0				
Malibu	MR311.27	PCH Intersections Improvements	CHG	1,000.0	325.0	1,325.0	710.0	290.0	325.0		
Malibu	MR311.28	Kanan Dume Road Arrestor Bed Improvements and Intersection with PCH Construction (Complete)		900.0	0.0	900.0	900.0				
Malibu	MR311.29	PCH Regional Traffic Message System (CMS)		0.0	0.0	0.0					
Malibu	MR311.30	PCH Roadway and Bike Route Improvements fr. Busch Dr. to Western City Limits (Complete)		500.0	0.0	500.0	500.0				
Malibu	MR311.32	PCH and Big Rock Dr. Intersection and at La Costa Area Pedestrian Improvements		950.0	0.0	950.0	950.0				
Malibu	MR311.35	Park and Ride Lot on Civic Center Way and/or PCH		3,500.0	0.0	3,500.0	3,500.0				
Malibu	MR311.16	Pedestrian Signal Improvements on PCH	DEOB	325.0	(325.0)	0.0	0.0				
Malibu	MR311.17	PCH at Las Flores and Rambla Pacifico Intersection Improvements		5,000.0	0.0	5,000.0	0.0	5,000.0			
		TOTAL MALIBU		39,325.0	0.0	39,325.0	33,710.0	5,290.0	325.0	0.0	0.0
Hidden Hills	MR311.34	Long Valley Road/Valley Circle/US-101 On-Ramp Improvements	CHG	5,952.0	(0.0)	5,952.0	2,720.0		3,232.0		
		TOTAL HIDDEN HILLS		5,952.0	(0.0)	5,952.0	2,720.0	0.0	3,232.0	0.0	0.0
TOTAL LAS VIRGENES/MALIBU PROGRAMMING				168,196.0	5,472.0	173,667.9	154,756.0	12,067.0	3,957.0	2,888.0	0.0

MEASURE R MULTIMODAL HIGHWAY OPERATIONAL IMPROVEMENT PROJECTS

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South Bay I-405, I-110, I-105, & SR-91 Ramp / Interchange Imps (expenditure line)				437,940.2	8,473.0	446,413.3	319,257.7	45,046.3	68,729.3	12,380.0	0.0
SBCCOG	MR312.01	South Bay Cities COG Program Development		13,375.0	0.0	13,375.0	13,375.0				
		TOTAL SBCCOG		13,375.0	0.0	13,375.0	13,375.0	0.0	0.0	0.0	0.0
Caltrans	MR312.11	ITS: I-405, I-110, I-105, SR-91 at Freeway Ramp/Arterial Signalized Intersections (Complete)		5,357.0	(0.0)	5,357.0	5,357.0				
Caltrans	MR312.24	I-110 Aux lane from SR-91 to Torrance Blvd Aux lane & I-405/I-110 Connector (Complete)		8,120.0	0.0	8,120.0	8,120.0				
Caltrans	MR312.25	I-405 at 182nd St. / Crenshaw Blvd Improvements		86,400.0	0.0	86,400.0	69,400.0	11,000.0	6,000.0		
Caltrans	MR312.29	ITS: Pacific Coast Highway and Parallel Arterials From I-105 to I-110 (Complete)		9,000.0	0.0	9,000.0	9,000.0				
Caltrans	MR312.45	PAED Integrated Corridor Management System (ICMS) on I-110 from Artesia Blvd and I-405	DEOB	1,000.0	(1,000.0)	0.0	0.0				
Caltrans	MR312.77	I-405 IQA Review for PSR (El Segundo to Artesia Blvd) (Complete)		150.0	0.0	150.0	150.0				
Caltrans	MR312.78	I-405 IQA Review for PSR (Main St to Wilmington) (Complete)		150.0	0.0	150.0	150.0				
Caltrans	MR312.82	PCH (I-105 to I-110) Turn Lanes and Pockets		5,000.0	0.0	5,000.0	0.0	5,000.0			
Caltrans	MR312.86	I-105 Integrated Corridor Management (IQA)		150.0	0.0	150.0	150.0				
		TOTAL CALTRANS		115,327.0	(1,000.0)	114,327.0	92,327.0	16,000.0	6,000.0	0.0	0.0
Carson/Metro	MR312.41	Traffic Signal Upgrades at 10 Intersections		4,220.0	0.0	4,220.0	2,800.0	1,420.0			
Carson/Metro	MR312.46	Upgrade Traffic Control Signals at Figueroa St and 234th St. and Figueroa and 228th st (Complete)		150.0	0.0	150.0	150.0				
Carson	MR312.80	223rd st Widening		1,000.0	0.0	1,000.0	1,000.0				
		TOTAL CARSON		5,370.0	0.0	5,370.0	3,950.0	1,420.0	0.0	0.0	0.0

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El Segundo	MR312.22	Maple Ave Improvements from Sepulveda Blvd to Parkview Ave. (Complete)		2,500.0	0.0	2,500.0	2,500.0				
El Segundo	MR312.57	Park Place Roadway Extension and Railroad Grade Separation Project		5,350.0	0.0	5,350.0	4,150.0	1,200.0			
		TOTAL EL SEGUNDO		7,850.0	0.0	7,850.0	6,650.0	1,200.0	0.0	0.0	0.0
Gardena	MR312.02	Traffic Signal Reconstruction on Vermont at Redondo Beach Blvd and at Rosecrans Ave.	CHG	1,500.0	728.0	2,228.0	1,500.0		728.0		
Gardena	MR312.09	Artesia Blvd Arterial Improvements from Western Ave to Vermont Ave	CHG	2,523.0	2,305.0	4,828.0	246.6		4,581.4		
Gardena	MR312.17	Rosecrans Ave Improvements from Vermont Ave to Crenshaw Blvd (Complete)		4,967.0	0.0	4,967.0	4,967.0				
Gardena	MR312.19	Artesia Blvd at Western Ave Intersection Improvements (Westbound left turn lanes) (Complete)		393.0	0.0	393.0	393.0				
Gardena	MR312.21	Vermont Ave Improvements from Rosecrans Ave to 182nd Street (Complete)		2,090.3	0.0	2,090.3	2,090.3				
Gardena	MR312.79	Traffic Signal Install at Vermont Ave. and Magnolia Ave		144.0	0.0	144.0	144.0				
		TOTAL GARDENA		11,617.3	3,033.0	14,650.3	9,340.9	0.0	5,309.4	0.0	0.0
Hawthorne	MR312.03	Rosecrans Ave Widening from I-405 SB off ramp to Isis Ave (Complete)		2,100.0	0.0	2,100.0	2,100.0				
Hawthorne	MR312.33	Aviation Blvd at Marine Ave Intersection Improvements (Westbound right turn lane) (Complete)		3,600.0	0.0	3,600.0	3,600.0				
Hawthorne	MR312.44	Hawthorne Blvd Improvements from El Segundo Blvd to Rosecrans Ave (Complete)		7,551.0	0.0	7,551.0	7,551.0				
Hawthorne	MR312.47	Signal Improvements on Prairie Ave from 118th St. to Marine Ave.		1,237.0	0.0	1,237.0	1,237.0				
Hawthorne	MR312.54	Intersection Widening & Traffic Signal Modifications on Inglewood Ave at El Segundo Blvd; on Crenshaw Blvd At Beach Road on Crenshaw at Jack Northrop and on 129th		2,000.0	0.0	2,000.0	2,000.0				
Hawthorne	MR312.61	Hawthorne Blvd Arterial Improvements, from 126th St to 111th St. (Completed)		4,400.0	0.0	4,400.0	4,400.0				
Hawthorne	MR312.66	Imperial Ave Signal Improvements and Intersection Capacity Project		1,995.0	0.0	1,995.0	1,995.0				
Hawthorne	MR312.67	Rosecrans Ave Signal Improvements and Intersection Capacity Enhancements.		3,200.0	0.0	3,200.0	3,200.0				
Hawthorne	MR312.68	El Segundo Blvd Improvements Project Phase I		2,000.0	0.0	2,000.0	2,000.0				

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Hawthorne	MR312.69	El Segundo Blvd Improvements Project Phase II		1,300.0	0.0	1,300.0	600.0	700.0			
Hawthorne	MR312.81	120th St Improvements -- Crenshaw Blvd to Felton Ave		3,600.0	0.0	3,600.0	600.0	2,000.0	1,000.0		
		TOTAL HAWTHORNE		32,983.0	0.0	32,983.0	29,283.0	2,700.0	1,000.0	0.0	0.0
Hermosa Beach	MR312.05	PCH (SR-1/PCH) Improvements between Anita St. and Artesia Boulevard		574.7	0.0	574.7	574.7				
		TOTAL HERMOSA BEACH		574.7	0.0	574.7	574.7	0.0	0.0	0.0	0.0
Inglewood	MR312.12	Intelligent Transportation System (ITS) Phase IV		3,500.0	0.0	3,500.0	3,500.0				
Inglewood	MR312.50	ITS: Phase V - Communication Gap Closure on Various Locations, ITS Upgrade and Arterial Detection		0.0	0.0	0.0					
Inglewood	MR312.70	Prairie Ave Signal Synchronization Project (Complete)		205.0	0.0	205.0	205.0				
Inglewood	MR312.71	La Cienega Blvd Synchronization Project (Complete)		80.0	0.0	80.0	80.0				
Inglewood	MR312.72	Arbor Vitae Synchronization Project (Complete)		130.0	0.0	130.0	130.0				
Inglewood	MR312.73	Florence Ave Synchronization Project (Complete)		255.0	0.0	255.0	255.0				
		TOTAL INGLEWOOD		4,170.0	0.0	4,170.0	4,170.0	0.0	0.0	0.0	0.0
LA City	MR312.48	Alameda St. (South) Widening frm. Anaheim St. to Harry Bridges Blvd		17,481.3	0.0	17,481.3	5,875.0	7,606.3	4,000.0		
LA City	MR312.51	Improve Anaheim St. from Farragut Ave. to Dominguez Channel (Call Match) F7207		1,313.0	(0.0)	1,313.0	1,313.0				
LA City	MR312.56	Del Amo Blvd Improvements from Western Ave to Vermont Ave Project Oversight		100.0	0.0	100.0	100.0				
LA City	MR312.74	Alameda St. (East) Widening Project		3,580.0	0.0	3,580.0	3,580.0				
		TOTAL LA CITY		22,474.3	(0.0)	22,474.3	10,868.0	7,606.3	4,000.0	0.0	0.0
LA County	MR312.16	Del Amo Blvd improvements from Western Ave to Vermont Ave (Complete)		307.0	0.0	307.0	307.0				
LA County	MR312.52	ITS: Improvements on South Bay Arterials (Call Match) F7310	REP	1,021.0	0.0	1,021.0	401.0	620.0			
LA County	MR312.64	South Bay Arterial System Detection Project	REP	2,000.0	0.0	2,000.0			600.0	1,400.0	
		TOTAL LA COUNTY		3,328.0	0.0	3,328.0	708.0	620.0	600.0	1,400.0	0.0

MEASURE R MULTIMODAL HIGHWAY OPERATIONAL IMPROVEMENT PROJECTS

ATTACHMENT A

Agency	Project ID No.	PROJECT/LOCATION	Note	Prior Alloc	Alloc Change	Current Alloc	Prior Yr Program	FY2022-23	FY2023-24	FY2024-25	FY2025-26
Lawndale	MR312.15	Inglewood Ave Widening from 156th Street to I-405 Southbound on-ramp (Complete)		43.0	0.0	43.0	43.0				
Lawndale	MR312.31	Manhattan Bch Blvd at Hawthorne Blvd Left Turn Signal Improvements		508.0	0.0	508.0	508.0				
Lawndale	MR312.36	ITS: City of Lawndale Citywide Improvements (Complete)		878.3	0.0	878.3	878.3				
Lawndale	MR312.49	Redondo Beach Blvd Mobility Improvements from Prairie to Artesia (Call Match) F9101		1,039.3	0.0	1,039.3	1,039.3				
		TOTAL LAWDALE		2,468.6	0.0	2,468.6	2,468.6	0.0	0.0	0.0	0.0
Lomita	MR312.43	Intersection Improvements at Western/Palos Verdes Dr and PCH/Walnut (Complete)		1,585.0	0.0	1,585.0	1,585.0				
		TOTAL LOMITA		1,585.0	0.0	1,585.0	1,585.0	0.0	0.0	0.0	0.0
Manhattan Beach	MR312.04	Sepulveda Blvd at Marine Ave Intersection Improvements (West Bound left turn lanes) (Complete)		346.5	0.0	346.5	346.5				
Manhattan Beach	MR312.28	Seismic retrofit of widened Bridge 53-62 from Sepulveda Blvd from 33rd Street to south of Rosecrans Ave		9,100.0	0.0	9,100.0	9,100.0				
Manhattan Beach	MR312.34	Aviation Blvd at Artesia Blvd Intersection Improvements (Southbound right turn lane)		1,500.0	0.0	1,500.0	1,500.0				
Manhattan Beach	MR312.35	Sepulveda Blvd at Manhattan Beach Blvd Intersection Improvements (NB, WB, EB left turn lanes and SB right turn lanes)	CHG	2,046.0	0.0	2,046.0	1,346.1		699.9		
Manhattan Beach	MR312.62	Marine Ave at Cedar Ave Intersection Improvements		900.0	0.0	900.0	900.0				
Manhattan Beach	MR312.87	Manhattan Bch Blvd at Peck Ave Signal Improvements		100.0	0.0	100.0	0.0	100.0			
		TOTAL MANHATTAN BEACH		13,992.5	0.0	13,992.5	13,192.6	100.0	699.9	0.0	0.0

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Metro	MR312.30	I-405 Improvements from I-105 to Artesia Blvd		17,381.0	0.0	17,381.0	17,381.0				
Metro	MR312.55	I-405 Improvements from I-110 to Wilmington	DEOB	17,400.0	(7,000.0)	10,400.0	10,400.0				
Metro	3000002033	South Bay Arterial Baseline Conditions Analysis (Complete)		250.0	0.0	250.0	250.0				
Metro	MR312.83	Inglewood Transit Center at Florence/La Brea		1,500.0	0.0	1,500.0	1,500.0				
Metro	MR312.84	I-105 Integrated Corridor Management		19,850.0	0.0	19,850.0	2,600.0	2,400.0	14,850.0		
Metro	MR312.85	South Bay I-405 Aux Lane Improv. State/Federal Grant Match	CHG	14,000.0	8,000.0	22,000.0	1,800.0	3,000.0	9,200.0	8,000.0	
		TOTAL METRO		70,381.0	1,000.0	71,381.0	33,931.0	5,400.0	24,050.0	8,000.0	0.0
Rancho Palos Verdes	MR312.39	Western Ave. (SR-213) from Palos Verdes Drive North to 25th street -- PSR	DEOB	90.0	(90.0)	0.0					
		TOTAL RANCHO PALOS VERDES		90.0	(90.0)	0.0	0.0	0.0	0.0	0.0	0.0
POLA	MR312.32	SR-47/Vincent Thomas Bridge on/off ramp Improvements at Harbor Blvd	CHG	46,350.0	2,980.0	49,330.0	10,830.0	10,000.0	25,520.0	2,980.0	
		PORT OF LOS ANGELES		46,350.0	2,980.0	49,330.0	10,830.0	10,000.0	25,520.0	2,980.0	0.0
Redondo Beach	MR312.06	Pacific Coast Highway improvements from Anita Street to Palos Verdes Blvd	CHG	1,400.0	1,000.0	2,400.0	1,400.0		1,000.0		
Redondo Beach	MR312.07	Pacific Coast Highway at Torrance Blvd intersection improvements (Northbound right turn lane) (Complete)		936.0	0.0	936.0	936.0				
Redondo Beach	MR312.08	Pacific Coast Highway at Palos Verdes Blvd intersection improvements (WB right turn lane) (Complete)		389.0	0.0	389.0	389.0				

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Redondo Beach	MR312.13	Aviation Blvd at Artesia Blvd intersection improvements (Complete) (Eastbound right turn lane)		22.0	0.0	22.0	22.0				
Redondo Beach	MR312.14	Inglewood Ave at Manhattan Beach Blvd intersection improvements (Eastbound right turn lane) (Complete)		30.0	0.0	30.0	30.0				
Redondo Beach	MR312.20	Aviation Blvd at Artesia Blvd intersection improvements (Northbound right turn lane)	CHG	1,907.0	550.0	2,457.0	1,907.0		550.0		
Redondo Beach	MR312.38	PCH at Anita St Improv (left and right turn lane)		2,400.0	0.0	2,400.0	2,400.0				
Redondo Beach	MR312.42	Inglewood Ave at Manhattan Beach Blvd intersection improvements (Southbound right turn lane)		5,175.0	0.0	5,175.0	5,175.0				
Redondo Beach	MR312.75	Kingsdale Ave at Artesia Blvd Intersection Improvements	CHG	992.0	1,000.0	1,992.0	992.0		1,000.0		
		TOTAL REDONDO BEACH		13,251.0	2,550.0	15,801.0	13,251.0	0.0	1,550.0	0.0	0.0
Torrance	MR312.10	Pacific Coast Highway at Hawthorne Blvd intersection improvements		20,597.0	0.0	20,597.0	20,597.0				
Torrance	MR312.18	Maple Ave at Sepulveda Blvd Intersection Improvements (Complete) (Southbound right turn lane)		319.9	0.0	319.9	319.9				
Torrance	MR312.23	Torrance Transit Park and Ride Regional Terminal Project 465 Crenshaw Blvd		25,700.0	0.0	25,700.0	25,700.0				
Torrance	MR312.26	I-405 at 182nd St. / Crenshaw Blvd Operational Improvements		15,300.0	0.0	15,300.0	15,300.0				
Torrance	MR312.40	Pacific Coast Highway at Vista Montana/Anza Ave Intersection Improvements		2,900.0	0.0	2,900.0	2,900.0				
Torrance	MR312.58	Pacific Coast Highway from Calle Mayor to Janet Lane Safety Improvements		852.0	0.0	852.0	852.0				
Torrance	MR312.59	Pacific Coast Highway at Madison Ave Signal upgrades to provide left-turn phasing (Complete)		500.0	0.0	500.0	500.0				
Torrance	MR312.60	Crenshaw from Del Amo to Dominguez + 3 SB turn lanes at Del Amo Blvd, 208th St., Transit Center Entrance, Signal Improvements at 2 new signal at Transit Center		3,300.0	0.0	3,300.0	3,300.0				
Torrance	MR312.63	PCH at Crenshaw Blvd Intersection Imp		500.0	0.0	500.0	500.0				
Torrance	MR312.76	Plaza Del Amo at Western Ave (SR-213) Improvements		2,784.0	0.0	2,784.0	2,784.0				
		TOTAL TORRANCE		72,752.9	0.0	72,752.9	72,752.9	0.0	0.0	0.0	0.0
		TOTAL SOUTH BAY PROGRAMMING		437,940.2	8,473.0	446,413.3	319,257.7	45,046.3	68,729.3	12,380.0	0.0

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Agency	Project ID No.	PROJECT/LOCATION	Note	Prior Alloc	Alloc Change	Current Alloc	Prior Yr Program	FY2022-23	FY2023-24	FY2024-25	FY2025-26
Caltrans	MR315.31	I-605 from SR-91 to South Street Improvements Project (Env. Doc.) (Complete)		500.0	0.0	500.0	500.0				
Caltrans	MR315.47	I-605 Corridor "Hot Spots" Interchanges Program Development, I-605/SR-60 PA/ED		3,650.0	0.0	3,650.0	3,650.0				
Caltrans	MR315.48	I-605 Corridor "Hot Spots" Interchanges Program Development, I-605 Intersection Improvements		60.0	0.0	60.0	60.0				
		TOTAL CALTRANS		8,050.1	0.0	8,050.1	8,050.1	0.0	0.0	0.0	0.0
Artesia	MR315.25	Pioneer Blvd at Arkansas St Intersection Imp		725.0	0.0	725.0	625.0	100.0			
		TOTAL ARTESIA		725.0	0.0	725.0	625.0	100.0	0.0	0.0	0.0
Bellflower	MR315.16	Bellflower Blvd- Artesia Blvd Intersection Improvement Project		8,442.8	0.0	8,442.8	8,442.8				
Bellflower	MR315.33	Lakewood - Alondra Intersection Improvements: Construction	CHG	1,002.0	500.0	1,502.0	1,002.0		500.0		
		TOTAL BELLFLOWER		9,444.8	500.0	9,944.8	9,444.8	0.0	500.0	0.0	0.0
Cerritos	MR315.38	Carmenita - South Intersection Improvements, Construction		634.2	0.0	634.2	414.2	220.0			
Cerritos	MR315.39	Bloomfield - Artesia Intersection Improvements, ROW & Construction		1,544.2	0.0	1,544.2	1,544.2				
		TOTAL CERRITOS		2,178.4	0.0	2,178.4	1,958.4	220.0	0.0	0.0	0.0
Downey	MR315.03	Lakewood - Telegraph Intersection Improvements (Complete)		2,120.0	0.0	2,120.0	2,120.0				
Downey	MR315.14	Lakewood - Imperial Intersection Improvements		4,060.0	0.0	4,060.0	4,060.0				
Downey	MR315.18	Bellflower - Imperial Highway Intersection Improvements (Complete)		2,740.4	0.0	2,740.4	2,740.4				
Downey	MR315.27	Lakewood - Florence Intersection Improvements		4,925.0	0.0	4,925.0	4,925.0				
Downey	MR315.66	Lakewood Blvd at Firestone Blvd Intersection Improvm.		3,993.0	0.0	3,993.0	1,300.0	2,693.0			
		TOTAL DOWNEY		17,838.4	0.0	17,838.4	15,145.4	2,693.0	0.0	0.0	0.0

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Gateway Cities: Interstate 710 South Early Action Projects (expenditure line 37)				300,378.2	6,000.0	306,378.2	264,522.5	0.0	0.0	0.0	0.0
GCCOG	MOU.306.03	GCCOG Engineering Support Services		2,000.0	0.0	2,000.0	1,550.0	450.0			
TOTAL GCCOG				2,000.0	0.0	2,000.0	1,550.0	450.0	0.0	0.0	0.0
Metro	AE3722900	I-710 Soundwall Design Package 1 (PSE & ROW) (Complete)		2,161.9	0.0	2,161.9	2,161.9				
Metro	Bucket	I-710 ITS/Air Quality Early Action (Grant Match)	DEOB	2,660.0	(2,660.0)	0.0					
Metro	MR306.02	I-710 Soundwall Package 2 Construction		4,948.0	0.0	4,948.0	4,948.0				
Metro	PS2198100	I-710 Soundwall Package 2 (PSE&ROW)		4,079.6	0.0	4,079.6	4,079.6				
Metro	PS-4010-2540-02-17	I-710/I-5 Interchange Project Development (Complete)		600.0	0.0	600.0	600.0				
Metro	PS4340-1939	I-710 Corridor Project (PA/ED) EIR/EIS		40,495.9	0.0	40,495.9	40,495.9				
Metro	PS4340-1939	I-710 Corridor Project Task Force/ Mobility Investment Plan Development		6,282.0	0.0	6,282.0	0.0	6,282.0			
Metro	TBD	LBC to East LA Mobility Corridor Investment Plan/Outrech CBO Efforts		850.0	0.0	850.0	0.0	425.0	425.0		
Metro	PS-4710-2744	I-710 Soundwall Feasibility & Project Development		3,509.0	0.0	3,509.0	3,509.0				
Metro	PS4720-3330	I-710 Soundwall PSE & ROW Package 3		7,929.6	0.0	7,929.6	7,929.6				
Metro	MR306.04	I-710 Soundwall Package 3 Construction		43,062.0	0.0	43,062.0	43,062.0				
Metro	PS4720-3334	Program/Project Management Support of Measure R Funds (Complete)		200.0	0.0	200.0	200.0				
Metro	MOU.Calstart2010	Professional Services contract for development of zero emission technology report		150.0	0.0	150.0	150.0				
Metro	MR306.38	Sustainable Transportation Planning Grant (Grant Match Complete)		64.8	0.0	64.8	64.8				
Metro	MR306.41	FRATIS Modernization (Grant Match)		3,000.0	0.0	3,000.0	3,000.0				
Metro	MR306.59	Imperial Hwy Capacity Enhancements Project		3,965.0	0.0	3,965.0	2,365.0	1,600.0			
Metro	various	Professional Services contracts for I-710 Utility Studies (North, Central, South)		25,046.0	0.0	25,046.0	25,046.0				
Metro	MR306.05	I-710 Integrated Corridor Management (ICM) Project	CHG	6,100.0	2,660.0	8,760.0	4,000.0	2,100.0	2,660.0		

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Metro	MR306.61	Rosecrans Ave/Atlantic Ave & Artesia Blvd/Santa Fe Intersection Improvements		2,553.2	0.0	2,553.2	329.5	223.7	2,000.0		
Metro/Signal Hill	MR306.62	Willow St Corridor -- Walnut Ave to Cherry Ave Congestion Relief Project	CHG	1,312.1	6,000.0	7,312.1	700.1	612.0	2,000.0	4,000.0	
		TOTAL METRO		158,969.1	6,000.1	164,969.2	142,641.5	11,242.7	7,085.0	4,000.0	0.0
POLA	MR306.40	I-710 Eco-FRATIS Drayage Truck Efficiency Project (Grant Match)		240.0	0.0	240.0	240.0				
		TOTAL POLA		240.0	0.0	240.0	240.0	0.0	0.0	0.0	0.0
Metro	13.01/USACE	Third Party Support Services for I-710 Corridor Project (US Army Corp of Eng)		100.0	0.0	100.0	100.0				
		TOTAL USACE		100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
Metro	MR306.39	I-710 Soundwall Project - SCE Utility Relocation Engineering Advance		75.0	0.0	75.0	75.0				
Metro	MR306.48	SCE design support I-710 Soundwall Package 3		400.0	0.0	400.0	400.0				
Metro	MR306.5B	Third Party Support Services for I-710 Corridor Project (So Cal Edison)		1,623.0	0.0	1,623.0	1,623.0				
		TOTAL SCE		2,098.0	0.0	2,098.0	2,098.0	0.0	0.0	0.0	0.0
Caltrans	MR306.27	Third Party Support for I-710 Corridor Project EIR/EIS Enhanced IQA		3,500.0	0.0	3,500.0	3,500.0				
Caltrans	MR306.29	I-710 Early Action Project - Soundwall PA/ED Phase - Noise Study Only		100.0	0.0	100.0	100.0				
Caltrans	MR306.21	I-710 Integrated Corridor Management (ICM) CT IQA		150.0	0.0	150.0	150.0				
		TOTAL CALTRANS		3,750.0	0.0	3,750.0	3,750.0	0.0	0.0	0.0	0.0
LA County	MR306.01	Whittier Blvd (Indiana Street to Paramount Blvd) Corridor Project (Call Match) F9304		700.0	0.0	700.0	700.0				
LA County	MR306.16	Staff Support for the Review of the Draft I-710 South EIR/EIS		157.0	0.0	157.0	157.0				
		TOTAL LA COUNTY		857.0	0.0	857.0	857.0	0.0	0.0	0.0	0.0

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South Gate	MR306.14	Staff Support for the Review of the Draft I-710 South EIR/EIS		184.5	0.0	184.5	184.5				
South Gate	MR306.17	Atlantic Ave/Firestone Blvd Intersection Improvements (Complete)		12,400.0	0.0	12,400.0	12,400.0				
South Gate	MR306.24	Reconfiguration of Firestone Blvd On-Ramp to I-710 S/B Freeway	CHG	1,450.0	0.0	1,450.0	1,450.0				
South Gate	MR306.33	Firestone Blvd Regional Corridor Capacity Enhancement Project		6,000.0	0.0	6,000.0	6,000.0				
South Gate	MR306.43	I-710 Soundwall Project - Package 1 Construction Phase		8,900.0	0.0	8,900.0	8,900.0				
South Gate	MR306.57	Imperial Highway Improvements Project		966.2	0.0	966.2	966.2				
South Gate	MR306.58	Firestone Blvd at Otis St Improvements		850.0	0.0	850.0	850.0				
South Gate	MR306.63	Garfield Ave Median Improvements (Complete)		340.0	0.0	340.0	340.0				
		TOTAL SOUTH GATE		31,090.7	0.0	31,090.7	31,090.7	0.0	0.0	0.0	0.0
Vernon	MR306.15	Staff Support for the Review of the Draft I-710 South EIR/EIS		70.2	0.0	70.2	70.2				
Vernon	MR306.25	Atlantic Blvd Bridge Widening and Rehabilitation		2,070.0	0.0	2,070.0	2,070.0				
		TOTAL VERNON		2,140.2	0.0	2,140.2	2,140.2	0.0	0.0	0.0	0.0
TOTAL I-710 SOUTH PROGRAMMING				300,378.2	6,000.0	306,378.2	264,522.5	21,514.7	16,341.0	4,000.0	0.0

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North County: SR-138 Safety Enhancements (expenditure line 38)				200,000.0		200,000.0	141,418.5	12,874.9	34,168.1	11,538.5	0.0
Metro	MR330.01	SR-138 (AvenueD) PA/ED (I-5 to SR-14)		19,400.0	0.0	19,400.0	19,400.0				
Metro	MR330.13	SR-14 Traffic Safety Improvements Project		5,600.0	0.0	5,600.0	0.0	5,600.0			
TOTAL METRO				25,000.0	0.00	25,000.0	19,400.0	5,600.0	0.0	0.0	0.0
Lancaster	MR330.02	SR-138 (SR-14) Avenue K Interchange	CHG	8,924.2	0.0	8,924.2	6,320.4			2,603.8	
Lancaster	MR330.03	SR-138 (SR-14) Avenue G Interchange		1,875.1	(0.0)	1,875.1	1,875.1				
Lancaster	MR330.04	SR-138 (SR-14) Avenue J Interchange		39,067.4	0.0	39,067.4	19,000.0	2,274.9	17,792.4		
Lancaster	MR330.05	SR-138 (SR-14) Avenue L Interchange		1,510.0	0.0	1,510.0	1,510.0				
Lancaster	MR330.06	SR-138 (SR-14) Avenue M Interchange	CHG	13,623.4	0.0	13,623.4	4,688.7			8,934.7	
TOTAL LANCASTER				65,000.0	0.0	65,000.0	33,394.2	2,274.9	17,792.4	11,538.5	0.0
Palmdale	MR330.07	SR-138 Palmdale Blvd. (SR-138) 5th to 10th St. East		25,000.0	0.0	25,000.0	25,000.0				
Palmdale	MR330.08	SR-138 Palmdale Blvd. SB 14 Ramps	CHG	25,000.0	10,429.1	35,429.1	14,053.4	5,000.0	16,375.7		
Palmdale	MR330.09	SR-138 10th St. West Interchange		15,000.0	0.0	15,000.0	15,000.0				
Palmdale	MR330.10	SR-138 (SR-14) Widening Rancho Vista Blvd. to Palmdale Blvd		25,000.0	0.0	25,000.0	25,000.0				
Palmdale	MR330.11	SR-138 Avenue N Overcrossing	DEOB	20,000.0	(10,429.1)	9,570.9	9,570.9				
TOTAL PALMDALE				110,000.0	(0.0)	110,000.0	88,624.3	5,000.0	16,375.7	0.0	0.0
TOTAL SR-138 PROGRAMMING				200,000.0		200,000.0	141,418.5	12,874.9	34,168.1	11,538.5	0.0

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North County: I-5/SR-14 Safety Enhancements (expenditure line 26)				85,094.9		85,094.9	60,611.2	14,000.0	500.0	9,984.2	0.0
Lancaster	MR330.02	SR-138 (SR-14) Avenue K Interchange	CHG	9,297.5	0.0	9,297.5				4,649.0	4,648.5
Lancaster	MR330.04	SR-138 (SR-14) Avenue J Interchange		8,769.2	0.0	8,769.2	6,569.2	2,200.0			
Lancaster	MR330.06	SR-138 (SR-14) Avenue M Interchange		3,677.0	0.0	3,677.0	2,877.0	800.0			
TOTAL LANCASTER				21,743.7	0.0	21,743.7	9,446.2	3,000.0	0.0	4,649.0	4,648.5
LA County	MR501.01	The Old Road - Magic Mountain Prkwy to Turnberry Ln		25,000.0	0.0	25,000.0	14,000.0	11,000.0			
TOTAL LA COUNTY				25,000.0	0.0	25,000.0	14,000.0	11,000.0	0.0	4,649.0	4,648.5
Palmdale	MR330.08	SR-138 Palmdale Blvd SB 14 Ramps		1,186.2	0.0	1,186.2	0.0		500.0	686.2	
Palmdale	MR330.09	SR-138 10th St. West Interchange		12,600.0	0.0	12,600.0	12,600.0				
TOTAL PALMDALE				13,786.2	0.0	13,786.2	12,600.0	0.0	500.0	686.2	0.0
Santa Clarita	MR501.02	Sierra Highway Traffi Signal Improvements		565.0	0.0	565.0	565.0				
Santa Clarita	MR501.03	Vista Canyon Road Bridge at Los Canyon Road		20,000.0	0.0	20,000.0	20,000.0				
Santa Clarita	MR501.04	Vista Canyon Metrolink Station		4,000.0	0.0	4,000.0	4,000.0				
TOTAL SANTA CLARITA				24,565.0	0.0	24,565.0	24,565.0	0.0	0.0	0.0	0.0
TOTAL I-5/SR-14 PROGRAMMING				85,094.9		85,094.9	60,611.2	14,000.0	500.0	9,984.2	0.0



Board Report

File #: 2023-0284, File Type: Program

Agenda Number: 9.

PLANNING AND PROGRAMMING COMMITTEE
June 14, 2023

SUBJECT: FUNDING AWARD RECOMMENDATION FOR FEDERAL TRANSIT
ADMINISTRATION SECTION 5310 GRANT PROGRAM

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING the recommended Section 5310 awards totaling \$13,891,798 as shown in Attachments A, B and C, available to Metro through the Federal Transit Administration (FTA) Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities Program;
- B. AUTHORIZING the Chief Executive Officer (CEO) or their designee to negotiate and execute pass-through funding agreements with the subrecipient agencies receiving awards;
- C. DELEGATING to the CEO or their designee the authority to administratively approve minor changes to the scope of previously approved Section 5310 funding awards;
- D. CERTIFYING that the Section 5310 funds are fairly and equitably allocated to eligible subrecipients and, where feasible, projects are coordinated with transportation services assisted by other federal departments and agencies; and
- E. CERTIFYING that the Section 5310 funding is included in the locally developed 2021-2024 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") that was developed and approved through a process that included participation by seniors and individuals with disabilities, as well as by representatives of public, private, and nonprofit transportation and human service providers, and other members of the public.

ISSUE

The FTA Section 5310 Program provides operating and capital assistance for public transportation projects that improve mobility for seniors (65+) and individuals with disabilities (any age) by removing barriers to transportation services and expanding the transportation mobility options available.

Following Board authorization (File #2022-0659), staff conducted a competitive solicitation for project proposals for the fiscal year (FY) 2021-2023 allocation of Section 5310 funds. Staff requests Board approval to fund the proposed projects as shown in Attachments A, B and C.

BACKGROUND

On April 23, 2014, the Governor of the State of California designated Metro as the Designated Recipient of Section 5310 funds apportioned to large-urbanized areas within Los Angeles County. On November 13, 2014, the Metro Board authorized the triennial process to allocate available Section 5310 funding to state, city, and/or nonprofit agencies as subrecipients for Metro in its role as the Designated Recipient. Metro is responsible for fund planning, programming, distribution, management, and subrecipient oversight.

DISCUSSION

Program Description

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 and individuals with disabilities 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 that assist seniors and individuals with disabilities.

Funding Availability

On December 5, 2022, Metro announced the availability of \$13,845,982 in Section 5310 funds through a competitive solicitation process, which included the actual federal fiscal year (FFY) 2021 and 2022 funding apportionment amounts, and the projected FFY 2023 apportionment amount. The actual FFY 2023 funding level was finalized on May 10, 2023, and was slightly higher than the projected amount, increasing the total available funding to \$13,891,798. Metro allocated this additional funding to the next highest ranked projects in each Urbanized Area (UZA).

Overall funding levels for each UZA are: \$13,130,233 for Los Angeles-Long Beach-Anaheim, \$444,591 for Lancaster-Palmdale, and \$316,974 for Santa Clarita.

Application Process

As part of the December 5, 2022, notice of funding availability, Metro solicited project proposals in accordance with FTA Section 5310 guidelines and with input from a working group consisting of internal and external stakeholders throughout Los Angeles County, including the Bus Operations Subcommittee (BOS), the Local Transit Systems Subcommittee (LTSS), the Accessibility Advisory Committee (AAC), and the Aging and Disability Transportation Network (ADTN).

The solicitation was advertised via The Source and was distributed to over 7,000 interested parties and potential applicants via mass email. The information was also posted on the Metro website.

Metro hosted an informational webinar on December 15, 2022, which was attended by more than 100 participants to review program requirements, the application package, project evaluation and the selection process. Private nonprofit organizations, state or local governmental authorities, and operators of public transportation were eligible to apply.

Evaluation of Proposals

Metro received 36 responsive applications requesting over \$17 million in federal grant funds by the February 27, 2023 deadline. Applications were evaluated and scored by a panel using the board-approved evaluation criteria identified in Attachment D. The panel was comprised of internal staff, and volunteers representing public transit agencies, BOS, and Access Services. The final project rankings are shown in Attachments A, B, and C.

Final rankings were based on the average scores of the panel members assigned to evaluate the application. Funding was allocated to the applications ranked highest to lowest, until funds were depleted. A minimum score of 70 was required to be recommended for an award.

Preliminary Funding Recommendations

Metro issued preliminary funding recommendations on April 6, 2023, for 95% of the projected available funding. These recommendations included: \$12,432,985 for 25 projects and one partial project for the Los Angeles-Long Beach-Anaheim UZA; \$418,683 for one project and one partial for the Lancaster-Palmdale UZA; and \$302,016 for one project for the Santa Clarita UZA. The remaining 5% of available funds (\$692,300) were set aside for Metro's Technical Advisory Committee (TAC) appeals process.

Metro TAC Appeals

On May 3, 2023, TAC heard applicant appeals from one applicant for the Lancaster-Palmdale UZA set-aside funding and four for the Los Angeles-Long Beach-Anaheim UZA set-aside funding. These appellants met the minimum score required to be recommended for an award but fell under the funding line due to the depletion of funds. Five percent of the available funding per UZA was set aside for this appeals process.

After hearing the one presentation for the Lancaster-Palmdale UZA funding, TAC approved a motion recommending that the Antelope Valley Transit Authority be fully funded with additional funding (\$9,183). After hearing the four presentations for the Los Angeles-Long Beach-Anaheim UZA funding, TAC approved a motion to fully fund the City of Monrovia with additional funding (\$140,069), partially fund the Institute for the Redesign of Learning (\$180,000), fully fund Westside Pacific Villages (\$132,750), and partially fund New Horizons with the remaining available funding (\$201,500) plus any additional funding made available after the FFY 2023 funding levels are finalized. Metro staff incorporated TAC's recommendation into the final awards.

Administrative Scope Changes

Grant subrecipients may request to re-scope their project(s) from what is approved by the Board. The

proposed recommendation will delegate to the CEO or their designee the authority to administratively approve minor changes to the scope of work. Minor changes include those which meet all the following criteria: 1) The scope change is consistent with the defined project limits as approved by the Board; 2) the scope of work, as modified, continues to meet the original intent of the approved project scope; 3) to the extent that the scope change results in a reduced total project cost, the new total project cost shall be within 20% of the original total project cost; and 4) the parties shall maintain the original grant to grantee funding commitment ratio (for example, if the grantee originally committed 20% of the total project cost, with the remaining 80% comprised of Section 5310 funds, those percentages shall apply to the new total project cost).

DETERMINATION OF SAFETY IMPACT

Approval of the recommendation will have no impact on the safety of Metro's customers and employees.

FINANCIAL IMPACT

There is no budget impact in FY 2022-23. 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

FTA Section 5310 funds will fully fund the recommended action. No other Metro funds will be required to manage, administer, and oversee the program. These funds are not eligible for Metro's bus and rail operating and capital expenditures.

EQUITY PLATFORM

Consistent with the goals of the Section 5310 Grant Program, Metro evaluated, and prioritized project proposals based on the Coordinated Plan consistency and prioritization of projects, ability to enhance mobility for the target population, demonstrated funding need, as well as project feasibility and readiness. The Metro TAC similarly considered this in their evaluation of project appeals. Additionally, in an effort to gather data that might aid future disparity analysis, applicants identified service areas at the zip code level. The next Coordinated Plan update is scheduled to begin in FY 2024 and will be an opportunity for Metro and stakeholders to analyze any geographic and other disparities within the target population and to prioritize funding as necessary to further promote equitable services.

Metro does not offer dedicated transportation for seniors and persons with disabilities but relies on proposals from senior and/or disabled transportation providers to fulfill a portion of the demand for those services with funding through the Section 5310 Program. The recommended awards would fund 31 projects that would deploy senior and disabled transportation services countywide, covering the large-urbanized areas of Los Angeles-Long Beach-Anaheim, Lancaster-Palmdale, and Santa Clarita. Some projects serve areas within city boundaries (e.g. Pasadena, Whittier); others are countywide (e.g. County New Freedom Service); and others, primarily nonprofit organizations, have broad catchment areas that often overlap (e.g. Valley Village in the San Fernando Valley and PIH

Health in the 25-mi area around Downey). The range of service areas captures all Equity Focus Communities (EFC) within the county, sometimes more than once. Approximately 38,000 seniors and/or persons with disabilities will be afforded mobility as a result of the projects, with approximately 488,000 one-way trips provided annually.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports the following goals of the 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 Designated Recipient of Section 5310 Program funds. Metro could also risk losing program funding if no action is taken to use the funds for achieving program goals.

NEXT STEPS

With Board approval, staff will submit a Section 5310 grant application to the FTA on behalf of all Board-approved projects for Los Angeles County. Once the grant is awarded, staff will execute pass-through funding agreements with the successful applicants as subrecipients. As the Designated Recipient for these funds, Metro staff will monitor project implementation, and work to ensure that subrecipients comply with all federal rules, regulations, and requirements. Staff will meet with any applicants that request a debriefing to explain the evaluation and scoring of their project proposal(s) and help them better prepare and improve for future funding opportunities.

ATTACHMENTS

Attachment A - Los Angeles-Long Beach-Anaheim Urbanized Area

Attachment B - Lancaster-Palmdale Urbanized Area

Attachment C - Santa Clarita Urbanized Area

Attachment D - Evaluation Criteria

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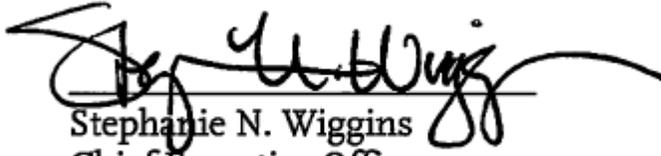
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Stephanie N. Wiggins
Chief Executive Officer

LOS ANGELES-LONG BEACH-ANAHEIM
 URBANIZED AREA

RANK	AGENCY	PROJECTS RECOMMENDED FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	AWARD (\$)	UNFUNDED AMT (\$)
1	Valley Village	Valley Village Vehicle Replacement and Expansion: Traditional Capital Assistance to Purchase Two (2) Class D Minivans for Replacement and One (1) Class V Van for Expansion.	97.67	\$220,000	\$22,000	\$198,000	\$0
2	AltaMed Health Services	AltaMed Vehicle Replacement and Expansion: Traditional Capital Assistance to Purchase Eight (8) Class C Buses for Replacement, and Three (3) Class B Buses and One (1) Class C Bus for Expansion.	96.00	\$1,320,000	\$132,000	\$1,188,000	\$0
3	County of Los Angeles Aging and Disabilities (AD) Department ¹	New Freedom Transportation Operations: Operating Assistance to Continue its Volunteer Driver Mileage Reimbursement (VDMR) and Taxicab Services Program (TSP), and Reopen its Door Assistance Transportation Program.	95.72	\$621,668	\$155,367	\$466,301	\$0
4	County of Los Angeles Aging and Disabilities (AD) Department	New Freedom Transportation Mobility Management: Traditional Capital Assistance to Support the Continuation and Expansion of its Current Mobility Management Program for Three (3) Years.	95.39	\$444,050	\$44,050	\$400,000	\$0
5	PIH Health Foundation	PIH Health Transportation Program: Traditional Capital Assistance for the Acquisition of NEW Transportation Services Under a Contract to Enhance and Expand its Transportation Program at its Whittier and Downey Hospitals, and Mobility Management for Three (3) Years.	94.78	\$589,790	\$58,979	\$530,811	\$0
6	City of Glendora	Glendora Dial-A-Ride Vehicle Replacement: Traditional Capital Assistance to Purchase Two (2) Class D Minivans for Replacement.	94.33	\$155,555	\$15,555	\$140,000	\$0
7	City of Pasadena	Pasadena Dial-A-Ride Zero Emission Vehicles: Traditional Capital Assistance to Purchase Seven (7) Class Z-2 Electric Cutaways for Replacement.	93.67	\$1,105,264	\$55,264	\$1,050,000	\$0
8	The Adult Skills Center	TASC Vehicle Expansion: Traditional Capital Assistance to Purchase Eight (8) Class V Vans for Expansion.	93.50	\$640,000	\$64,000	\$576,000	\$0
9	City of Glendale	Glendale Dial-A-Ride Vehicle Replacement: Traditional Capital Assistance to Purchase Six (6) Class D Minivans for Replacement.	92.67	\$420,000	\$42,000	\$378,000	\$0
10	The Adult Skills Center	TASC Vehicle Operations: Operating Assistance to Operate its Eight (8) Class V Expansion Vans for Three (3) Years.	91.50	\$184,518	\$46,130	\$138,388	\$0
11	Los Angeles Jewish Health	LAJH Vehicle Replacement and Expansion: Traditional Capital Assistance to Purchase Two (2) Class B Buses for Replacement and Two (2) Class B Buses for Expansion.	91.50	\$440,000	\$44,000	\$396,000	\$0
12	City of South El Monte	South El Monte Dial-A-Ride Electric Van Acquisition: Traditional Capital Assistance to Purchase Two (2) Class Z-1 Electric Vans for Replacement.	91.00	\$240,000	\$24,000	\$216,000	\$0
13	Disabled Resources Center, Inc.	DRC Information and Mobility Training: Operating Assistance to Continue its Information and Mobility Training Program for Three (3) Years.	88.00	\$433,440	\$108,360	\$325,080	\$0

LOS ANGELES-LONG BEACH-ANAHEIM
 URBANIZED AREA

RANK	AGENCY	PROJECTS <u>RECOMMENDED</u> FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	AWARD (\$)	UNFUNDED AMT (\$)
14	Rancho Research Institute	RRI Vehicle Replacement: Traditional Capital Assistance to Purchase Four (4) Class A Buses for Replacement.	87.50	\$562,720	\$162,720	\$400,000	\$0
15	Therapeutic Living Centers for the Blind	TLC Vehicle Replacement and Expansion: Traditional Capital Assistance to Purchase Three (3) Class A Buses for Replacement and Two (2) Class A Buses for Expansion.	87.50	\$500,000	\$50,000	\$450,000	\$0
16	Los Angeles Jewish Health	LAJH Transportation Operations: Operating Assistance for Two (2) New Drivers, One (1) Dispatcher, Gas, and Maintenance for up to Three (3) Years.	86.50	\$488,613	\$122,154	\$366,459	\$0
17	Pomona Valley Transportation Authority	PVTA Mobility Manager Project: Traditional Capital Assistance to Support the Continuation and Expansion of its Current Mobility Management Program for Three (3) Years.	84.67	\$603,125	\$60,313	\$542,812	\$0
18	Los Angeles County Public Works	LA County Public Works Vehicle Replacement: Traditional Capital Assistance to Purchase Eleven (11) Class Z-1 Electric Vans for Replacement.	84.50	\$1,320,000	\$132,000	\$1,188,000	\$0
19	Villa Esperanza Services	Villa Esperanza Vehicle Replacement: Traditional Capital Assistance to Purchase Two (2) Class D Minivans for Replacement.	84.00	\$140,000	\$14,000	\$126,000	\$0
20	City of San Fernando	San Fernando ADA Improvement Project: Other Capital Assistance for ADA Improvements at Transit Stops to Eliminate Barriers to the Fixed Route System.	83.83	\$833,333	\$83,333	\$750,000	\$0
21	Pomona Valley Transportation Authority	PVTA One Step Over the Line: Operating Assistance to Continue and Expand PVTA's Inter-County "One Step Over the Line" Service to Seniors and the Disabled for Two (2) Years.	83.50	\$432,693	\$108,173	\$324,520	\$0
22	City of Whittier	Whittier Vehicle Replacement: Traditional Capital Assistance to Purchase One (1) Class C Cutaway and Three (3) Class D Minivans for Replacement.	82.33	\$320,000	\$32,000	\$288,000	\$0
23	Institute for the Redesign of Learning	IRL Transportation Operations: Operating Assistance for Bus Aides, Repairs, Maintenance, and Fuel for Three (3) Years.	81.67	\$700,000	\$175,000	\$525,000	\$0
24	City of Glendale	Glendale On-Demand Pilot Program: Operating Assistance for its On-Demand Pilot Transportation Program for One (1) Year.	80.75	\$1,000,000	\$400,000	\$600,000	\$0
25	New Horizons	New Horizons Vehicle Expansion for Inclusion: Traditional Capital Assistance to Purchase Six (6) Class D Minivans for Expansion.	80.00	\$420,000	\$42,000	\$378,000	\$0
26	City of Monrovia	GoMonrovia Phase II Expansion: Operating Assistance for a Phase II Effort to Expand Monrovia Transit's ADA Services and Resources for Seniors and Individuals with Disabilities for One (1) Year.	79.17	\$1,200,000	\$600,000	\$600,000	\$0

LOS ANGELES-LONG BEACH-ANAHEIM
 URBANIZED AREA

RANK	AGENCY	PROJECTS <u>RECOMMENDED</u> FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	AWARD (\$)	UNFUNDED AMT (\$)
27	New Horizons ²	New Horizons Driving for Inclusion: Operating Assistance to Operate Six (6) Class D Expansion Minivans for Fifteen (15) Months.	76.50	\$368,150	\$92,038	\$276,112	\$432,062
28	Institute for the Redesign of Learning ²	IRL Vehicle Replacement: Traditional Capital Assistance to Purchase Two (2) Class A Buses for Replacement.	76.17	\$200,000	\$20,000	\$180,000	\$270,000
29	Westside Pacific Villages	WPV Transportation Operations: Operating Assistance for its Transportation Program for Three (3) Years.	71.66	\$177,000	\$44,250	\$132,750	\$0
TOTALS				\$16,079,919	\$2,949,686	\$13,130,233	\$702,062

¹ Funded through all three urbanized areas (see attachments A, B, and C).

² Recommended for partial funding due to funds being depleted.

RANK	AGENCY	PROJECTS <u>NOT RECOMMENDED</u> FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	REQUEST (\$)	UNFUNDED AMT (\$)
30	Adventist Health White Memorial ³	AHWM Transportation Service Expansion: Traditional Capital Assistance to Purchase One (1) Class V Van for Expansion and Additional Staffing.	61.73	\$109,120	\$10,912	\$98,208	\$98,208
31	City of Glendora ³	Glendora Transportation Center ADA Upgrades: Other Capital Assistance for ADA and Safety Improvements to its Future Transportation Center.	60.00	\$295,663	\$95,663	\$200,000	\$200,000
32	City of Cudahy ³	Cudahy Dial-A-Ride Expansion Program: Operating Assistance to Expand the City's Dial-A-Ride Program Two (2) Years.	58.33	\$300,000	\$25,000	\$275,000	\$275,000
33	City of Manhattan Beach ³	Manhattan Beach ADA Ramp Improvement Project: Other Capital Assistance to Design and Construct up to Thirty (30) ADA Ramps at Pick-up/Drop-off Locations for its Dial-A-Ride Service.	53.00	\$1,200,000	\$120,000	\$1,080,000	\$1,080,000
34	City of San Fernando ³	San Fernando Vehicle Replacement and Expansion: Traditional Capital Assistance to Purchase Two (2) Class C Buses (or Equivalent) for Replacement and Two (2) Class D Minivans for Expansion.	40.33	\$424,000	\$64,000	\$360,000	\$360,000
TOTALS				\$2,328,783	\$315,575	\$2,013,208	\$2,013,208

³ Did not meet the minimum score required to be recommended for an award.

LANCASTER-PALMDALE URBANIZED AREA

RANK	AGENCY	PROJECTS <u>RECOMMENDED</u> FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	AWARD (\$)	UNFUNDED AMT (\$)
1	County of Los Angeles Aging and Disabilities (AD) Department ¹	New Freedom Transportation Operations: Operating Assistance to Continue its Volunteer Driver Mileage Reimbursement (VDMR) and Taxicab Services Program (TSP), and Reopen its Door Assistance Transportation Program.	95.72	\$22,300	\$5,575	\$16,725	\$0
2	Antelope Valley Transit Authority	AVTA NEMT Operations: Operating Assistance to Continue its Non-Emergency Medical Transportation (NEMT) service for Two (2) Years.	75.83	\$311,732	\$155,866	\$155,866	\$0
3	Antelope Valley Transit Authority	AVTA NEMT Vehicle Expansion: Traditional Capital Assistance to Purchase One (1) Class G Cutaway (or Equivalent) and One (1) Class Z-2 Electric Cutaway for Expansion.	71.67	\$335,115	\$63,115	\$272,000	\$0
TOTALS				\$669,147	\$224,556	\$444,591	\$0

¹ Funded thorough all three urbanized areas (see attachments A, B, and C).

RANK	AGENCY	PROJECTS <u>RECOMMENDED</u> FOR A FUNDING AWARD	SCORE	PROJECT TOTAL (\$)	LOCAL MATCH (\$)	AWARD (\$)	UNFUNDED AMT (\$)
1	County of Los Angeles Aging and Disabilities (AD) Department ¹	New Freedom Transportation Operations: Operating Assistance to Continue its Volunteer Driver Mileage Reimbursement (VDMR) and Taxicab Services Program (TSP), and Reopen its Door Assistance Transportation Program.	95.72	\$422,632	\$105,658	\$316,974	\$0
TOTALS				\$422,632	\$105,658	\$316,974	\$0

¹ Funded through all three urbanized areas (see attachments A, B, and C).

EVALUATION CRITERIA

The following summarizes general project narrative application requirements and the corresponding maximum points possible for each segment (100 points maximum)

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

- Existing services and target populations served; detail proposed scope of work including: need, objectives, changes, improvements, and how it is aligned with program goals; present project readiness/schedule; explain how program funds requested will apply to meet project requirements (30 points).
- Specific details demonstrating project development and/or implementation coordination with others (3 points).
- Marketing, promotion, public awareness plans (2 points).

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

- Priority ranking of the proposed project based on the overall prioritization ranking table in the 2021-2024 Coordinated Plan (10 points).
- Project goals alignment with goals and strategies identified in the 2021-2024 Coordinated Plan (5 points).

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

- Project management plan, project milestones and deliverables, and role and experience of key personnel (10 points).
- Contingency plan details: service, staffing, mechanical, and technical (5 points).

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

- Quantitative and applicable qualitative project performance measures over the life of project including methodology to develop estimates (10 points).
- Evaluation of project effectiveness and strategies to mitigate poor performance (2 points).
- Tools & procedures to collect, track, and report project performance (3 points).

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

- Completion of project financial plan table with expenditure amounts by quarter.
- Description of how schedule is realistic to enable project completion.

F. Budget Justification (Up to 10 points)

- Assumptions used to prepare project budget.
- Attachment of three quotes for purchase of equipment, supplies, and/or services.
- Identification of all sources and amounts of revenue and/or grants to support project.
- Identification & eligibility of federal funds requested.
- Local Match Commitment Letter with amount and source of non-USDOT local match funds committed to project, or In-Kind Match Commitment Letter with detailed description and value of eligible in-kind item or service.



Board Report

File #: 2023-0330, File Type: Program

Agenda Number: 10.

PLANNING AND PROGRAMMING COMMITTEE JUNE 14, 2023

SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM UPDATE - CENTRAL CITY SUBREGION

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING programming of \$746,646 within the capacity of Measure M Multi-Year Subregional Program (MSP) - Active Transportation, First/Last Mile and Mobility Hubs Program, as shown in Attachment A;
- B. REPROGRAMMING of projects previously approved to meet environmental, design, right-of-way, and construction time frames, as shown in Attachment A; and
- C. AUTHORIZING the Chief Executive Officer (CEO) or their designee to negotiate and execute all necessary agreements and/or amendments for approved projects.

ISSUE

Measure M MSPs are included in the Measure M Expenditure Plan. All MSP funds are limited to capital projects. The annual update approves additional eligible projects for funding and allows the Central City subregion and implementing agencies to revise the project budgets, and schedule for previously funded projects.

This update includes changes to projects which have received Board approval. Funds are programmed through Fiscal Year (FY) 2026-27. The Board's approval is required to update the project list (Attachments A), which serves as the basis for Metro to enter into agreements and/or amendments with the respective implementing agencies.

BACKGROUND

In June 2022, the Metro Board of Directors approved the Central City Subregion's first MSP Plan and programmed funds in the Measure M MSP - Active Transportation, First/Last Mile and Mobility Hubs Program (expenditure line 55).

Based on the amount provided in the Measure M Expenditure Plan, a total of \$24.02 million was forecasted for programming for FY 2017-18 to FY 2026-27. In prior action, the Board approved programming of \$18.62 million. Therefore, \$5.4 million is available to the Subregion for programming as part of this update.

DISCUSSION

Metro staff worked closely with the Subregion and implementing agencies on project budget and schedule changes for this update. The changes in this update include the reprogramming of five previously approved projects and the funding adjustments for four previously approved projects.

Active Transportation First/Last Mile and Mobility Hubs Program (Expenditure Line 55)

LA City

- Reprogram previously approved \$2,790,491 as follows: \$1,125,885 in FY 24, \$1,342,278 in FY 25, and \$322,328 in FY 26 for MM4201.01 - Integrated Mobility Hub Program (at or near the following Metro Rail stations: Pershing Square; Pico Station; Grand/ LA Trade Tech; 7th and Metro; Civic Center/ Grand Park; Vermont and Sunset; Vermont and Santa Monica; Hollywood and Vine; Hollywood and Highland; Hollywood and Western). The funds will be used to complete the Project's Plans, Specifications, and Estimates (PS&E), equipment/vehicle, and construction phases.
- Program additional \$80,000 and reprogram previously approved \$400,000 as follows: \$80,000 in FY 23 and \$400,000 in FY 24 for MM4201.02 - New Pedestrian Crossing at Spring Street and Ann Street Project. The funds will be used to complete the Project's PS&E and construction phases.
- Reprogram previously approved \$447,650 to FY 25 for MM4201.03 - Active Streets LA - South Los Angeles Project. The funds will be used to complete the Project's PS&E and construction phases.
- Program additional \$320,000 in FY 26 for MM4201.04 - Manchester Elementary Safe Route to School (SRTS) Project. Total MSP funds of \$1,623,500 will be used to complete the Project's PS&E and construction phases.
- Reprogram previously approved \$4,400,000 as follows: \$440,000 in FY 25, \$440,000 in FY 26, and \$3,520,000 in FY 27 for MM4201.05 - Lockwood Ave Elementary SRTS Project. The funds will be used to complete the Project's PS&E and construction phases.
- Reprogram previously approved \$3,830,000 to FY 23 for MM4201.06 - Rail-to-River Project. The funds will be used as the City's contribution towards Metro's Rail to Rail Active Transportation Corridor Project.

- Reprogram previously approved \$2,098,103 as follows: \$209,810 in FY 25, \$209,810 in FY 26, and \$1,678,483 in FY 27 for MM4201.07 - Los Angeles Elementary SRTS Project. The funds will be used to complete the Project's PS&E and construction phases.
- Program additional \$80,000 in FY 24 for MM4201.08 - New Pedestrian Crossing at Crenshaw Boulevard and Brynhurst Avenue. Total MSP funds of \$580,000 will be used to complete the Project's construction phase.
- Program additional \$266,646 in FY24 for MM4201.09 - Esperanza Elementary SRTS. Total MSP funds of \$1,072,461 will be used to complete the Project's PS&E and construction phases.

DETERMINATION OF SAFETY IMPACT

Programming of Measure M MSP funds to the Central City Subregion projects will not have any adverse safety impacts on Metro's employees or customers.

FINANCIAL IMPACT

In FY 23, \$9.59 million is budgeted in Cost Center 0441 (Subsidies to Others) for the Active Transportation Program (Project #474401). Upon approval of this action, staff will reallocate necessary funds to appropriate projects within Cost Center 0441. Since these are multi-year projects, Cost Center 0441 will be responsible for budgeting the cost in future years.

Impact to Budget

The source of funds for these projects are Measure M Highway Construction 17%. This fund source is not eligible for Metro bus and rail operating and capital expenditures.

EQUITY PLATFORM

The Central City Subregion consists of only two jurisdictions, City of Los Angeles and unincorporated communities in Los Angeles County. Equity Focus Communities (EFCs) are concentrated in both jurisdictions in this subregion, at 55.62%. All projects included in this report are almost entirely within EFCs. The jurisdictional requests are proposed and approved/forwarded by the subregion. In line with the Metro Board adopted guidelines and June 2022 Objectives for Multimodal Highways Investments, cities provide documentation demonstrating community support, project need, and multimodal transportation benefits that enhance safety, support traffic mobility, economic vitality, and enable a safer and well-maintained transportation system. Jurisdictions lead and prioritize all proposed transportation improvements, including procurement, the environmental process, outreach, final design, and construction. Each jurisdiction, independently and in coordination with the subregion, undertakes its jurisdictionally determined community engagement process specific to the type of transportation improvement they seek to develop. These locally determined and prioritized projects represent the needs of jurisdictions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

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

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling by alleviating the current operational deficiencies and improving mobility along the projects.

Goal 4: Transform LA County through regional collaboration by partnering with the Council of Governments and the local jurisdictions to identify the needed improvements and take the lead in development and implementation of their projects.

ALTERNATIVES CONSIDERED

The Board could elect not to approve the additional programming or reprogramming of funds for the Measure M MSP projects for the Central City Subregion. This is not recommended as the proposed projects were developed by the subregion in accordance with the Measure M Ordinance, Guidelines and the Administrative Procedures.

NEXT STEPS

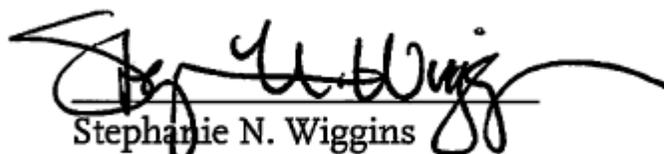
Metro staff will continue to work with the Subregion to identify and deliver projects. Funding Agreements will be executed with those who have funds programmed in FY 23. Program/Project updates will be provided to the Board on an annual basis.

ATTACHMENT

Attachment A - Active Transportation, First/Last Mile and Mobility Hubs Program Project List

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Chief Executive Officer

**Central City Area Subregion
Measure M Multi-Year Subregional Plan - Active Transportation, First/Last Mile and Mobility Hubs (Expenditure Line 55)**

	Agency	Project ID No.	Project/Location	Funding Phases	Note	Pror Alloc	Alloc Change	Current Alloc	FY2022-23	FY2023-24	FY 2024-25	FY 2025-26	FY 2026-27
1	LA City	MM4201.01	Integrated Mobility Hub Program	PS&E Equipment/Vehicle Construction	chg	\$ 2,790,491		\$ 2,790,491		\$1,125,885	\$1,342,278	\$322,328	
2	LA City	MM4201.02	New Pedestrian Crossing at Spring and Ann	PS&E Construction	chg	400,000	80,000	480,000	80,000	400,000			
3	LA City	MM4201.03	Active Streets LA - South Los Angeles	PS&E Construction	chg	447,650		447,650			447,650		
4	LA City	MM4201.04	Manchester Elementary SRTS	PS&E Construction	chg	1,303,500	320,000	1,623,500	130,350	130,350	1,042,800	320,000	
5	LA City	MM4201.05	Lockwood Ave Elementary SRTS	PS&E Construction	chg	4,400,000		4,400,000			440,000	440,000	3,520,000
6	LA City	MM4201.06	Rail-to-River Project	Construction	chg	3,830,000		3,830,000	3,830,000				
7	LA City	MM4201.07	Los Angeles Elementary SRTS	PS&E Construction	chg	2,098,103		2,098,103			209,810	209,810	1,678,483
8	LA City	MM4201.08	New Pedestrian Crossing at Crenshaw and Brynhurst	Construction	chg	500,000	80,000	580,000	500,000	80,000			
9	LA City	MM4201.09	Esperanza Elementary SRTS	PS&E Construction	chg	805,815	266,646	1,072,461	161,163	911,298			
10	LA City	MM4201.10	Valencia Triangle Plaza	PS&E Construction		733,397		733,397	733,397				
11	LA County	MM4201.11	East LA Civic Center Station First-Last Mile Improvements Phase 2	PS&E Construction		1,314,836		1,314,836	118,742	462,000	734,094		
Total Programming Amount						\$18,623,792	\$ 746,646	\$19,370,438	\$ 5,553,652	\$ 3,109,533	\$ 4,216,632	\$ 1,292,138	\$ 5,198,483

**Board Report**

File #: 2023-0019, **File Type:** Motion / Motion Response**Agenda Number:**

**PLANNING AND PROGRAMMING COMMITTEE
JUNE 14, 2023****SUBJECT: UPDATE ON THE LONG BEACH-EAST LA CORRIDOR TASK FORCE****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE report on the Long Beach-East LA Corridor Task Force.

ISSUE

At its meeting on September 22, 2022, the Board approved the Vision, Guiding Principles, Goals, Pre-Investment Plan Opportunity candidate grant projects, and the new name for the Task Force (File #2022-0330). The Board also approved a motion by Directors Hahn, Solis, and Dutra (Attachment A) to provide funding to support grant applications for the Pre-Investment Plan Opportunity projects. This Receive and File report provides an update to the Board on the progress made by the Long Beach-East LA (LB-ELA) Task Force since the September 2022 meeting, including the approval of the Evaluation Framework and the result of various grant applications for corridor projects.

BACKGROUND

In response to communication from the US Environmental Protection Agency and then- Caltrans Director (and current California State Transportation Agency [CalSTA] Secretary) Toks Omishakin that the I-710 South Corridor Project EIR/EIS would not have a path forward to securing a Record of Decision for Locally Preferred Alternative (LPA) 5C, the Board took a series of actions (Attachment B) in May 2021 to set an alternate path forward for staff to develop a new approach to developing an investment plan for the corridor.

To advance Board direction, Metro partnered with Caltrans District 7 to develop what was initially known as the 710 Task Force, comprising a wide range of stakeholders from the community to the regional level that would represent the important partners to help Metro shape, fund, and implement a new, multimodal, community-focused, and regionally significant investment plan for the I-710 South Corridor. This investment plan will focus on funding projects in the near term that can deliver immediate benefits for the LB-ELA Corridor and creating strategic approaches to developing or refining projects and programs that will further advance the goals and vision for the LB-ELA Corridor created by the Task Force and approved by the Board.

The Task Force launched in September 2021 and meets monthly. To support the Task Force, staff also developed the Community Leadership Committee (CLC) and Equity Working Group (EWG) to provide opportunities to engage and receive input from members of and advocates for impacted communities.

In May 2022 the Board directed staff (Attachment C) to return with three recommendations: (1) a new name for the corridor, (2) the Task Force's recommendation for its Vision, Goals, and Guiding Principles for board consideration, and (3) a set of early grant investment opportunities for the corridor. At the same meeting, the Board concurrently approved a new LPA for the I-710 South Corridor EIR/EIS - Alternative 1 (the "No Build" alternative) - to replace the previously adopted LPA (Alternative 5C) and received a report on how the Task Force's Investment Plan would take the place of the original project to program and leverage Measure R and M funds assigned for the I-710 South Corridor project (File# 2022-0100).

Staff returned to the Board in September 2022 with the new name (the Long Beach-East LA Corridor), a set of four projects composing a "Pre-Investment Plan Opportunity" (PIPO) for which staff would seek grant funding, and the Task Force's adopted Vision, Goals, and Guiding Principles (File #2022-0330). The Board approved these items and authorized funding to serve as a local match for the PIPO project grant applications (Attachment A).

Following the adoption of the Vision, Goals, and Guiding Principles, staff have completed the subsequent phase of the Task Force Investment Plan process - Developing Multimodal Strategies and Identifying Projects and Programs - and have made significant progress on the following phase - Evaluating and Refining Projects and Programs - for which the Task Force voted in May 2023 to approve the Evaluation Framework to be used to refine and prioritize projects for the Investment Plan. Staff will return to the Board in November 2023 with a draft Investment Plan for discussion and consideration.

DISCUSSION

Developing the List of Multimodal Strategies, Projects, and Programs

Following the Board's adoption of the Task Force's recommended Vision Statement, Guiding Principles, and Goals, staff initiated the next phase of the work plan: Developing Multimodal Strategies and Identifying Projects and Programs (Attachment D, Slide 2). The Task Force sought as inclusive a set of Multimodal Strategies, Projects, and Programs (MSPPs) as possible, using a broad outreach and engagement approach to receive input from corridor residents, community groups, interested stakeholders, partner agencies, and other parties.

Staff employed an extensive public engagement effort to develop the list of candidate MSPPs, with a particular focus on engagement with impacted communities supplemented by partnerships with community-based organizations (CBOs). This effort included an online survey and interactive map that provided an opportunity for residents, community leaders, and other stakeholders to give direct input into the process. Metro's outreach campaign engaged approximately 5,400 community members and stakeholders through 28 events hosted by 18 CBOs and 18 pop-up events hosted by

Metro. Additionally, Metro hosted four workshops in Spanish (with English translation) and two workshops in English (with Spanish translation). As a result, almost 3,000 responses to the survey and interactive mapping tool were submitted, generating new approaches to making improvements within the corridor by those residents most impacted within the corridor (Attachment D, Slides 3-7).

In addition to receiving input from residents, staff also reviewed a wide range of prior programs and initiatives from local, subregional, and regional agencies related to the LB-ELA Corridor. Staff included elements of the original I-710 South Corridor project, including envisioned “early action projects”, that involved neither displacement nor extensive right-of-way impacts for local communities. Staff also received a set of recommendations created by the Gateway Cities Council of Governments’ (COG’s) 710 Ad Hoc Committee and by community activists provided through the “Community Alternative 7” proposed in 2014. Staff also included projects from corridor cities, Caltrans, Metro’s Measure R and M expenditure plans and Long-Range Transportation Plan, and the Southern California Association of Governments’ Regional Transportation Plan / Sustainable Communities Strategy. Staff only included from these sources projects and programs that met the Board’s direction for the Task Force as reflected in the Vision, Goals, and Guiding Principles and other policies, such as the Multimodal Highway Investment Objectives (File #2022-0302), in developing the Investment Plan (Attachment D, Slide 8).

Over 300 projects and programs were identified through all these various efforts (Attachment E) and formed the Initial List of MSPPs. Staff organized these myriad projects into six categories, in alphabetical order:

- Active Transportation / Traffic Demand Management (TDM)
- Arterial Roadways
- Community Programs
- Freeway
- Goods Movement
- Transit

These categories reflect and align well with the Task Force’s adopted Vision, Goals, and Guiding Principles. Each category comprises four sub-categories that help to cover the broad range of the types of projects and programs that compose the Initial List of MSPPs. See Attachment F for a complete list of categories and sub-categories for projects and programs.

Staff also presented information on the Initial List of MSPPs to the CLC at seven meetings and the EWG at five meetings between August 18, 2022, and February 23, 2023. Input received from these groups was used to help refine the Initial List as well as provide feedback to the Task Force for consideration at its meetings. Some of the key questions and concerns centered on ensuring impacts on local communities, particularly safety and air quality, were drawn forth from the evaluation process.

The Task Force concluded the Developing Multimodal Strategies and Identifying Projects and Programs phase of the work plan at its February 13, 2023, meeting and supported moving the Initial List of MSPPs into the Evaluating and Refining Projects and Programs Phase (Attachment D, Slide 2).

Purpose of the Evaluation Criteria

The main driver of the Evaluating and Refining Projects and Programs Phase of the LB-ELA Corridor Investment Plan is the development of the evaluation criteria, which will be used to create summary findings for each project or program identified in the prior phase as it relates to the Board-approved Vision, Goals, and Guiding Principles. The 73 criteria (Attachment G) will allow the project team to evaluate each project or program in consideration of the following questions:

- How well does each project or program align with the LB-ELA Corridor Task Force Vision and Goals?
- Does the project or program advance the Guiding Principle of Equity in the Corridor?
- Does the project or program advance the Guiding Principle of Sustainability in the Corridor?
- What are the potential concerns and negative impacts that should be highlighted?

Each project or program will receive a rating for each evaluation criterion, ranging between “No Benefit” and “High Benefit”. Adverse impacts will also be identified through the “concerns” criteria, which will be expanded as necessary to capture a full picture of potential impacts. This approach was deemed necessary given the broad assortment of project and program types—each with a different level of development and refinement—to be considered in the multimodal, community-supportive, regionally significant, and strategic Investment Plan to be developed by the Task Force.

Additionally, staff will use “flags” as a method to highlight projects that do not perform well on equity and to capture additional considerations, positive or negative, for each project or program beyond the summary findings of the evaluation criteria. These “flags” will be carried through the rest of the process to further explore and identify specific project or program concerns or benefits that may not be fully captured by the evaluation criteria and methodology (Attachment D, Slides 10-11).

Incorporating Equity in the Evaluation Framework

A central hallmark of the LB-ELA Corridor Investment Plan is its focus on delivering equitable outcomes for the impacted residents within a corridor. To accomplish this vision the project team has included evaluation criteria specifically designed to reflect the role of Equity through every aspect of the project as a Guiding Principle

- an overarching lens that applies to project evaluation across multiple goal areas. Equity’s inclusion as a guiding principle, and the language of the guiding principle itself, were informed by early discussions with the EWG. The Equity evaluation criteria require the technical team to probe more deeply into the distribution of potential project benefits to populations of highest need, as defined through the EWG and Equity Planning and Evaluation Tool (EPET) process. Throughout the EWG process, staff has applied the EPET (Attachment D, Slide 12) to identify geographies and populations of highest need throughout the LB-ELA Corridor and develop Equity evaluation criteria that measure each project and program’s potential to benefit or burden these communities. Staff applied the EPET to *Analyze Data*, identifying the impacted geographic areas and demographics of these areas, existing disparities, and more equitable future outcomes. Staff simultaneously applied the EPET to

Engage the Community, discussing the historic context and root causes of current conditions and disparities, identifying community members most vulnerable to negative impacts, and considering who is most likely to benefit or be burdened from potential investments.

Through application of the EPET and discussions with the EWG, staff identified two ways to evaluate potential project and program outcomes for communities of highest need, and most vulnerable to potential impacts. The 'EFC-Lens' criteria use Metro's Equity Focus Communities geographic designation established through Metro's Equity Need Index (MENI) - see Attachment D, Slide 12 - to account for historically marginalized and transit-dependent populations regarding Race/Ethnicity, Income, and Vehicle Access. While the EFC designations were developed outside of the LB-ELA Corridor Task Force process, the EFC designations closely reflect areas facing a variety of other socioeconomic, health, and environmental justice burdens. These were studied in the initial analysis of existing conditions data, which were presented to the EWG for discussion and verification. Therefore, all evaluation criteria that include a quantitative geographic based analysis contribute to a supplementary 'EFC-lens' score. This score measures the level of benefit of a project or program to EFC communities relative to the level of benefit to non-EFC communities. The 'EQ-Qual' (Qualitative Equity) criteria account for the level of relative benefit to specific vulnerable communities that were elevated through EWG input and application of the EPET's Analyze Data and Engage the Community sections. Specifically, the EQ-Qual evaluation criteria account for those communities facing high pollution burden and asthma rates, areas lacking active transportation infrastructure and parks, non-driving populations, areas of low tree-canopy and extreme heat burden, unemployed and low-income workforce, and households or businesses at risk of displacement.

Developing the Evaluation Framework

At the March 13, 2023, Task Force meeting, the project team initiated the discussion on and presented an overview for the Evaluation Framework to be developed and used to ultimately refine MSPPs for consideration to be included in the draft LB-ELA Corridor Investment Plan. The project team also provided a presentation on modeling and evaluation tools to be used going forward in this phase.

Prior to the next Task Force meeting in April, staff presented draft Evaluation Criteria to the CLC on March 23 and March 27, 2023, for review and input, receiving general support for the thoroughness of the criteria but also questions and comments about the "flag" process the project team proposed to ensure equity and other concerns for any project could be noted and resolved in the evaluation process. On March 30, 2023, the project team introduced the Evaluation Framework and presented the equity evaluation criteria proposed for the framework to the EWG. Additionally, the project team discussed the EPET and addressed concerns raised about its application to the LB-ELA Corridor Investment Plan process.

At the April 10, 2023, Task Force meeting, the project team presented the Evaluation Framework and methods to be used as well as facilitated a discussion on the proposed evaluation criteria - these criteria provided approaches to evaluating projects across Goals, the Guiding Principles of Equity

and Sustainability, project mode and type, qualitative vs. quantitative means of analysis, and through an Equity Focus Community lens. The project team received input from Task Force members, including numerous questions or requests for additional information. An informal test for consensus found that 82% of the membership could either “Support” or “Live With” the criteria at that time, with only 18% expressing that they “Have Concerns”.

Following the discussion at the April Task Force meeting, staff then held several outreach meetings focused on presenting and discussing the draft Evaluative Criteria. On April 11 and April 19, 2023, staff presented to the Gateway Cities COG’s I-710 Technical Advisory Committee to gather feedback and suggestions for refining the criteria. On April 17, 2023, the project team then hosted a “Lunch and Learn” meeting to provide an open forum for Task Force and CLC members to raise additional questions and receive information in advance of the May Task Force meetings.

Following the “Lunch and Learn”, the project team then met with the CLC on April 20, 2023. One of the important points made by the CLC was to find ways to incorporate more detailed health metrics as evaluation criteria, which staff discussed and responded on the many ways public health would be included comprehensively within the evaluation framework. The CLC then took a vote to “Support the Evaluation Criteria” with 83% voting “Yes” and 17% voting “No”. The summary for this meeting can be found in Attachment D, Slide 13.

At the EWG meeting on April 27, 2023, staff spent a significant amount of time focusing on health as part of the Evaluation Framework, following the receipt of a letter (Attachment H) on April 10, 2023, from the Coalition of Environmental Health and Justice (CEHAJ), a coalition of organizations whose members also serve on the Task Force, that provided additional input on the inclusion of health outcomes in the Evaluation Framework. Staff affirmed that the Evaluation Framework is designed to measure the project outcomes that support the desired health-related community results. The project team provided information on how health issues have been considered at various stages of the development of the Investment Plan and what challenges exist that undermine the evaluation of a project’s direct effect on health outcomes, resulting in the standard practice using other indicators such as air quality to measure potential health benefits or negative health impacts of a project. Additional discussion on staff’s approach to health is provided in more detail in the following section of this report.

The Task Force then met on May 1 and May 8, 2023, to review input from the CLC and EWG and deliberate on the set of 73 Evaluation Criteria proposed by the project team and refined with public and community input (Attachment G). At this meeting additional discussion continued regarding potential health benefits and impacts included in the criteria, with several members expressing the desire to see additional health criteria. Following this discussion, the Task Force voted to move forward with the evaluation criteria (62% voted “Yes”, 33% voted “No”, and 5% abstained). Despite some of the concerns expressed about how best to incorporate health in the evaluation framework to develop the Investment Plan, staff believes the approach approved by the Task Force and presented over the prior months will address many of the concerns raised by the communities within the corridor.

Public Health and the Evaluation Criteria

Staff recognizes that communities within the LB-ELA Corridor face significant health disparities (such as high asthma and cardiovascular disease rates) and experience disproportionate pollution burdens (such as PM2.5 and Diesel PM emissions) compared with other communities in Los Angeles County. These findings have been documented through health and environmental justice screening tools such as CalEnviroScreen, CA Healthy Places Index, the Center for Disease Control and Prevention (CDC) Environmental Justice Index Explorer, and several studies related to vehicular pollution and health outcomes surrounding the I-710 Freeway and throughout the region. In addition to the high overall health burdens facing the LB-ELA Corridor communities relative to the county and state, health burdens within the corridor disproportionately impact people of color and low-income populations.

These health disparities have been consistently elevated by Task Force, EWG, CLC, and community members throughout the Task Force's planning process, guiding staff's technical work in conducting existing conditions research and developing the Initial List of MSPPs and Evaluation Criteria. Of the 73 Evaluative Criteria approved by the Task Force, 22 of them are health-related and will support staff's work to incorporate health as part of the Investment Plan process (see Attachment I, page 7)

Staff appreciates the continuous interest and dedication from Task Force and community members in addressing health as part of the work of the Task Force, as was communicated through a letter sent to Metro by CEHAJ on April 10, 2023 (Attachment H) providing feedback into the evaluative criteria, with a specific focus on health outcomes as a criterion to be used by staff to evaluate projects and develop recommendations for the draft Investment Plan. Staff have also received feedback that they should consider using a Health Impact Assessment (HIA) as part of their evaluation process.

Staff's overview of how health is being incorporated into the evaluation criteria and process is presented in Attachment I (pages 1-6). Staff appreciates the input received from Task Force stakeholders, continues to elevate health as a priority within the Task Force process, and commits to engaging in ongoing dialogue with stakeholders and incorporating health in future phases of the Investment Plan development and implementation.

Grant Awards and Activities for LB-ELA Corridor Projects

While the Task Force is developing the draft Investment Plan for Board consideration, staff have been working concurrently with local jurisdictions and partner agencies to support grant activities for projects within the LB-ELA Corridor to take advantage of the unprecedented levels of funding generated through the passage of the Bipartisan Infrastructure Law (BIL)/Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) layered on top of existing, ongoing discretionary grant programs offered by the state through the Senate Bill 1 programs administered by the California Transportation Commission (CTC) and by other agencies focused on advancing zero emission energy and technology.

At the May 2022 Board meeting, the Metro Board, recognizing these funding opportunities could yield potential investment in the LB-ELA Corridor in 2022 and early 2023, approved Motion #9 by Directors Hahn, Solis, Mitchell, and Dutra (Attachment C) to initiate what ultimately became the Pre-Investment Plan Opportunity (PIPO) that was developed by staff through the Task Force process. Staff also worked with other LB-ELA Corridor agencies to support their grant applications submitted in the same

timeframe.

Since May 2022, thanks to the leadership of the Board and the many Task Force stakeholders, \$116.24 million has been awarded to projects within the LB-ELA Corridor. An additional \$202.344 million in a multimodal array of projects is recommended for funding by the CTC at its June 28-29, 2023, meeting. Included in these recommended awards are three PIPO projects, two of which were provided local funding by the Board through Motion #9 (Attachment C) and the third of which was provided technical and grant support by Metro staff. See Attachment J for more information on grant awards and activities for LB-ELA Corridor projects.

Staff will continue to evaluate opportunities to seek grant funding for projects that arise through the remainder of 2023, and report to the Board with such opportunities when timely.

Corridor Tours

On April 18, 2023, Metro supported Caltrans District 7 in hosting a corridor tour for CalSTA Secretary Toks Omishakin, Caltrans Director Tony Tavares, CTC Commissioners Joe Lyou and Michele Martinez, and interim CTC Executive Director Tanisha Taylor. Caltrans District 7 was represented by Executive Director Gloria Roberts and her staff, while Metro was represented by Director Fernando Dutra, Chief Planning Officer Jim de la Loza and his staff, and the Office of Equity and Race, led by Executive Officer KeAndra Cylear Dodds. Metro Operations provided the bus and drivers used for the tour. The tour included representatives from community groups, the Gateway Cities COG, and other agencies and stakeholders in the corridor.

The tour offered these state officials the opportunity to get an in-person view of the on-the-ground conditions and concerns that have been raised by community stakeholders regarding the interconnected issues of transportation, air quality, health, and opportunity. A full itinerary and roster of attendees can be found in Attachment K.

Metro plans to host two corridor tours this summer, on Saturday, June 24, 2023, and Wednesday, June 28, 2023. These tours will focus on providing Task Force and CLC members with a review of the corridor, including existing conditions and potential improvements that could be made. Metro will provide buses for these tours, which will run from 8:30am to 2:00pm and will cover the same route to provide all members the opportunity to pick between a weekday or weekend date. Staff will provide more information on these tours and the itineraries as details become finalized.

Update on “No Build” environmental document status

Following receipt of a letter from Caltrans requesting Metro replace the original LPA for the I-710 South Corridor EIR/EIS (Alternative 5C) with Alternative 1, the “No Build” alternative, the Board took action to make this change official (File# 2022-0100). Staff then initiated coordination with Caltrans District 7 staff to prepare the finalization of the environmental process for the new LPA to close out the original project. As the lead agency responsible for compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), Caltrans will certify the I-710

South Corridor Project to meet the requirements of NEPA and CEQA.

Caltrans anticipates completing their internal review of the document by October 2023, which would allow for a 30-day public availability period to commence leading to the approval of a Record of Decision and Notice of Determination by late fall/early winter 2023.

EQUITY PLATFORM

As demonstrated above, the LB-ELA Task Force strives to advance equity through its process and its ultimate outcome through the Investment Plan. In partnership with Metro's Office of Equity and Race, the technical team is piloting the EPET to support the Task Force's endeavors. Staff are engaging stakeholders, including those most likely to be impacted by potential improvements in the corridor, through the CLC and other avenues of public engagement to develop the LB-ELA Corridor Investment Plan.

Staff have also implemented a CBO Partnering Strategy with CBOs that are based in and work with the communities along the LB-ELA Corridor. Metro's goal is to engage these communities by working with CBOs and the people they serve to gather input and identify multi-modal strategies, projects, and programs that are needs and priorities for these impacted communities.

The LB-ELA Task Force and its attendant working groups and CLC will continue to promote community-driven conversations to ensure an equitable decision-making process as the Task Force develops multimodal strategies and identifies priority projects and programs for the LB-ELA Corridor to be brought to the Metro Board for consideration.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Collaboration among the LB-ELA Corridor communities, impacted residents, Caltrans District 7, the Gateway Cities COG, and stakeholders through LB-ELA Corridor Task Force meetings and its attendant committees and public outreach forums will lead to the development of the multimodal, multiyear LB-ELA Investment Plan. The process and the outcome of the Task Force will help implement three key Metro Vision 2028 Strategic Plan Goals:

- 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
- Goal 4: Transform LA County through regional collaboration and national leadership

NEXT STEPS

Staff will support the CTC staff award recommendations for LB-ELA Corridor projects to be considered by the CTC at its June 28-29, 2023, meeting.

The project team will complete technical analyses and evaluations of the various projects and programs using the evaluation framework approved by the Task Force in May 2023.

The project team will lead two tours of the LB-ELA Corridor, on Saturday, June 24, 2023, and Wednesday, June 28, 2023, to provide opportunities for members of the Task Force and CLC to view various potential project sites and existing conditions in the corridor to help inform future decisions regarding the Investment Plan. Staff will also work with stakeholders to develop additional outreach and advocacy opportunities to highlight the need for investment in the corridor, including a potential “710” day on July 10, 2023.

Staff will continue to work with Task Force and CLC members to review the potential for more opportunities to improve public health for corridor residents.

Staff will work with the Task Force and CLC to develop the draft LB-ELA Corridor Draft Investment Plan and will present this draft to the Board during the November/December 2023 board cycle.

Staff will also develop a qualifying Comprehensive Multimodal Corridor Plan for the LB-ELA Corridor based on the process and results of the Investment Plan.

FINANCIAL IMPACT

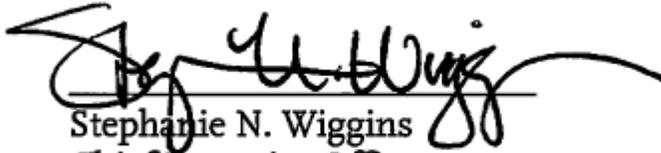
There is no financial impact to this action.

ATTACHMENTS

- Attachment A - September 2022 Motion by Directors Hahn, Solis, and Dutra
- Attachment B - May 2021 Board Motions
- Attachment C - May 2022 Motion by Directors Hahn, Solis, Mitchell, and Dutra
- Attachment D - LB-ELA Corridor Task Force Slide Deck
- Attachment E - Initial List of Multimodal Strategies, Projects, and Programs
- Attachment F - Categories and Sub-categories of Projects and Programs
- Attachment G - Final Evaluation Criteria
- Attachment H - Letter from CEJAH re: Health Criteria (April 10, 2023)
- Attachment I - Summary of Health Considerations for Evaluative Criteria
- Attachment J - Grant Awards and Activities for LB-ELA Corridor Projects
- Attachment K - April 2023 I-710 Tour Information and Roster

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Metro

Board Report

File #: 2022-0674, **File Type:** Motion / Motion Response

Agenda Number: 49.

**REGULAR BOARD MEETING
SEPTEMBER 22, 2022**

Motion by:

DIRECTORS HAHN, SOLIS, AND DUTRA

Related to Item 48: 710 South Corridor Pre-Investment Plan Opportunity Motion

As part of its I-710 South Corridor Pre-Investment Plan Opportunity, Metro staff have identified the Southeast LA Transit Improvement Program and the Humphreys Avenue Bike/Pedestrian Crossing in East LA.

In order to apply for eligible State and Federal grant funding for match for either of these projects, Metro needs to commit a match using available local funding in order to ensure the highest likelihood of success for these funding opportunities.

Available grant application deadlines are coming up more quickly than local match commitments can be authorized in advance by this Board.

SUBJECT: RELATED TO ITEM 48: 710 SOUTH CORRIDOR PRE-INVESTMENT PLAN OPPORTUNITY MOTION

RECOMMENDATION

APPROVE Motion by Directors Hahn, Solis, and Dutra to provide the Chief Executive Officer authority to include a local funding match from available non-bus and rail operations-eligible funds for those grant applications submitted through the remainder of calendar year 2022 for the above-identified Pre-Investment Plan Opportunity initiatives, and to report back to this Board after such action has been taken.

Metro

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



Metro

Board Report

File #: 2021-0368, **File Type:** Motion / Motion Response

Agenda Number: 47.

REVISED
REGULAR BOARD MEETING
MAY 27, 2021

Motion by:

DIRECTORS SOLIS, SANDOVAL, BUTTS, GARCETTI, AND MITCHELL

710 South Corridor Project

In March of 2018, the Metro Board of Directors approved Motion 5.2 which adopted Alternative 5C as the Locally Preferred Alternative for the 710 South Corridor Project Environmental Impact Report/ Environmental Impact Statement (EIR/EIS). The Motion also directed staff to implement an Early Action Program that would quickly deliver safety, mobility, and air quality benefits to the region, and to “re-evaluate and re-validate the remaining elements of Alternative 5C” upon completion of the Early Action Program. The Early Action Program includes a slew of projects throughout the 710 South Corridor such as streets and interchange improvements, active transportation facilities, the Clean Truck Program, and the Community Health Benefit Program. These Early Action Program improvements were required for completion before any mainline freeway work began.

Since approval of Motion 5.2, Metro staff has worked towards completion of the EIR/EIS. However, in just the last few weeks, the United States Environmental Protection Agency (EPA) opined that a particulate matter hot-spot analysis would be required for the 710 South Corridor Project’s EIR/EIS transportation conformity determination. Without this hot-spot analysis, the EPA cannot determine whether or not the Project is a project of air quality concern and a record of decision cannot be issued for the EIR/EIS. Additionally, at a recent meeting of the California Transportation Commission, Caltrans Director Toks Omishakin stated that Caltrans would “put an absolute pause on this project in the format that it’s currently in,” explaining that the Project does not align with the current trajectory of California’s transportation policy.

The issues raised by our federal and state partners suggest the need to re-think the Project scope and undertake a holistic, equity-based examination of the Project to ensure Metro’s investments do not disproportionately impact communities of color, inadvertently worsen induced demand, or work against existing greenhouse gas emissions reduction goals. There are elements currently included in the EIR/EIS that support local and state transportation goals and should move forward as individual projects separate from any mainline improvements to the 710 South Corridor.

SUBJECT: 710 SOUTH CORRIDOR PROJECT

RECOMMENDATION

APPROVE Motion by Directors Solis, Sandoval, Butts, Garcetti, and Mitchell that direct the Chief Executive Officer to:

1. Immediately ~~cease~~ suspend further work to advance the current 710 South Corridor Project EIR/EIS;
2. Evaluate all improvements included in the EIR/EIS that can be advanced separately from mainline 710 South infrastructure improvements including, but not limited to, projects related to active transportation, operational improvements, clean truck infrastructure, and community health;
3. Identify additional locally-supported projects that can be advanced to enhance mobility along the 710 South Corridor and complement the non-freeway projects mentioned above, including but not limited to the West Santa Ana Branch, the LA River/Rio Hondo Confluence Station, LA River Master Plan, Rail to River, and the Atlantic Boulevard Bus Rapid Transit;
4. Collaborate with corridor cities, local stakeholders, community based organizations, the Ports of Los Angeles and Long Beach, and the Gateway Council of Governments to conduct outreach and develop a funding plan in order to advance a revised Early Action Program that includes projects identified in Directives 2 and 3. The revised Early Action Program should emphasize shovel ready projects and prioritize partnerships with labor to advance Metro's Project Labor Agreement and Construction Careers Policy;
5. Report back on all directives in September 2021.



Board Report

File #: 2021-0365, **File Type:** Motion / Motion Response

Agenda Number: 48.

REGULAR BOARD MEETING MAY 27, 2021

Motion by:

DIRECTORS HAHN, SOLIS, BUTTS, AND DUTRA

I-710 South Corridor Project

Metro, the California Transportation Agency (Caltrans), and the corridor cities have studied the I-710 South Corridor Project for over a decade, with goals of reducing goods movement congestion and improving air quality and mobility for communities along the corridor.

The Project is a high priority for goods movement, as the I-710 directly links the broader region with the Ports of Los Angeles and Long Beach, which combined account for 40% of the nation's imports.

Three years ago, the Metro Board approved Alternative 5C as the Locally Preferred Alternative, at an estimated cost of \$6 billion. The Board also voted to limit property impacts, ensure local hiring priorities, and prioritize an Early Action Program. Further, Motion 5.1 doubled the size of the Zero Emissions Truck program to \$200 million and called for a Zero Emissions truck lane. Once the Board approved the Project, staff sought Federal environmental clearance in order to be eligible for Federal funding.

The United States Environmental Protection Agency (EPA), in a letter dated March 25, 2021 and addressed to Metro CEO Phil Washington and Caltrans District 7 Director Tony Tavares, stated that "a PM [Particulate Matter] hot-spot analysis is necessary for the project's transportation conformity determination." That analysis has not yet been conducted for this Project, and the Project cannot receive Federal funding until a hot-spot analysis is conducted and meets Federal requirements.

At the California Transportation Commission's May 12, 2021 meeting, Caltrans Director Toks Omishakin stated "I don't see how we can move forward with the I-710 South Corridor Project in its current format" and that the Metro Board "may have to take another vote on this particular project."

Without Federal and State support and funding for the I-710 South Corridor Project in its current form, there is insufficient funding to proceed with Alternative 5C as approved by the Board. However, the status of the project and Metro's and Caltrans' recommended approach for addressing the ongoing goods movement, air quality, and mobility needs along this corridor remains unclear.

SUBJECT: I-710 SOUTH CORRIDOR PROJECT

RECOMMENDATION

APPROVE Motion by Directors Hahn, Solis, Butts, and Dutra that the Board direct the Chief Executive Officer to report back to the Board in July 2021 on:

1. Why the EPA concluded the project does not meet conformity requirements and why Caltrans Director Toks Omishakin stated that Caltrans cannot support the Project “in its current format”;
2. Identify what elements of the Project can either be moved forward or modified in order to get State and Federal support, including but not limited to: price-managed freeway lanes, zero emissions-only truck lanes, short- and long-haul rail, Atlantic Avenue bus rapid transit, Metrolink capital and service improvements, and State and Federal funding for near-zero and zero-emissions goods movement investments earmarked for the I-710 South Corridor;
3. If inclusion of some or all of the elements in Directive 2 above will be enough to get State and Federal support for the Project or if it needs to be reimagined entirely; and,
4. A plan for re-engaging cities and stakeholders along the corridor.



Board Report

File #: 2022-0355, **File Type:** Motion / Motion Response

Agenda Number: 9.

PLANNING AND PROGRAMMING COMMITTEE MAY 18, 2022

Motion by:

DIRECTORS HAHN, SOLIS, MITCHELL, AND DUTRA

I-710 South Corridor Motion

The I-710 South Corridor is a 19-mile stretch of the I-710 Freeway, from East Los Angeles in the north to the Ports of Long Beach and Los Angeles in the south. Connecting the ports with shipping and warehousing facilities in Southern California, this corridor is a goods movement corridor of national significance, as 40% of all waterborne or containerized imports into the United States come through the Ports of Long Beach and Los Angeles, which have become California's and America's loading docks. Metro has been studying ways to relieve congestion and improve safety along the I-710 South Corridor for more than two decades.

Of the 1.2 million people who live along the I-710 South Corridor, nearly 1 million, or 83 percent, identify as Black or Hispanic. These residents face some of the worst air quality anywhere in the country, as the corridor accounts for 20% of all particulate emissions in Southern California. The I-710 South is known as the "diesel death zone" owing to very high levels of diesel pollutants within a quarter-mile either side of the freeway. These high levels of pollutants have been linked to health challenges including decreased lung function, asthma, increased lung and heart disease symptoms, and chronic bronchitis in communities along the corridor, which also face long-standing disparities in health and access to healthcare.

In 2018, the Metro Board of Directors voted in favor of the I-710 South Corridor's Environmental Impact Report's recommended "Alternative 5C." That Board decision was contingent on Federal approval, in order to fully fund the project. In 2021, the U.S. Environmental Protection Agency (EPA) formally opposed "Alternative 5C" on the grounds that any increase in vehicles and trucks along the corridor would increase particulate emissions in communities that are already heavily impacted by particulate emissions. Subsequent to that decision, the State of California also announced that it would not support "Alternative 5C."

Beginning in mid-2021, Metro staff initiated a new process to reimagine the corridor, convening a Task Force comprised of stakeholders representing labor, the ports, local elected leadership, goods movement industry, and community-based organizations. That Task Force now also includes several working groups and a Community Leadership Committee to help inform future project direction and decision-making. In addition, the Gateway Cities Council of Governments (COG) convened an Ad

Hoc Committee, comprised of elected leaders representing cities along the corridor, which considered and approved Guiding Principles and Projects and Programs which are the COG's preferred approach for improving the quality of life for corridor residents and enhancing the operational efficiency benefitting the corridor's users.

The steps taken in the past year by Metro to chart the path forward for this project are commendable. Even as the larger capital project has seen the environmental review process need to restart, the challenges along the I-710 South Corridor not only remain but continue in many ways to further deteriorate. The Ports are seeing record imports, and many of these products are being trucked out, on the I-710 Freeway, creating even more congestion along and near the freeway, further exacerbating safety issues and worsening air quality for communities throughout the corridor.

Since the time of the Board's 2018 action on the I-710 South Corridor, the California Department of Transportation (Caltrans) has adopted a new standard for evaluating freeway projects, known as "The Transportation Analysis Framework: Evaluating Transportation," implementing provisions of SB 743 (Steinberg, 2013), focused on reducing "Vehicle Miles Traveled" (VMT). The State has also adopted the "California Action Plan for Transportation Infrastructure," or CAPTI, which aligns the State's transportation infrastructure investments with its climate, health, and equity goals, with a goal of significantly reducing VMT.

Additionally, the Biden-Harris Administration has issued new Federal policies "securing environmental justice and spurring economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution," including Executive Order 14008 and the Justice40 Initiative. The Federal Highway Administration has also issued a policy document associated with implementing the new Bipartisan Infrastructure Law that states, in part, "The Policy prioritizes projects that move more people and freight by modernizing and increasing the operational efficiency of existing roads and highways over projects that expand the general purpose capacity of roads and highways."

The original vision for the I-710 South Corridor was a \$6 billion freeway project, leveraging nearly \$1 billion in local funding to be matched by \$5 billion in State and Federal funding. While most of the local funding remains in Measures R and M, any major investments in the corridor will need State and Federal support, and Metro should seek a similar 5-to-1 State/Federal-to-Local match goal.

SUBJECT: I-710 SOUTH CORRIDOR MOTION

RECOMMENDATION

APPROVE Motion by Directors Hahn, Solis, Mitchell, and Dutra that:

Given that the 710 Task Force will very soon be finalizing the project's Vision Statement, Guiding Principles, and Goals, the Chief Executive Officer shall report back on the Task Force's recommendations for these project directives in June 2022 for Board consideration and approval.

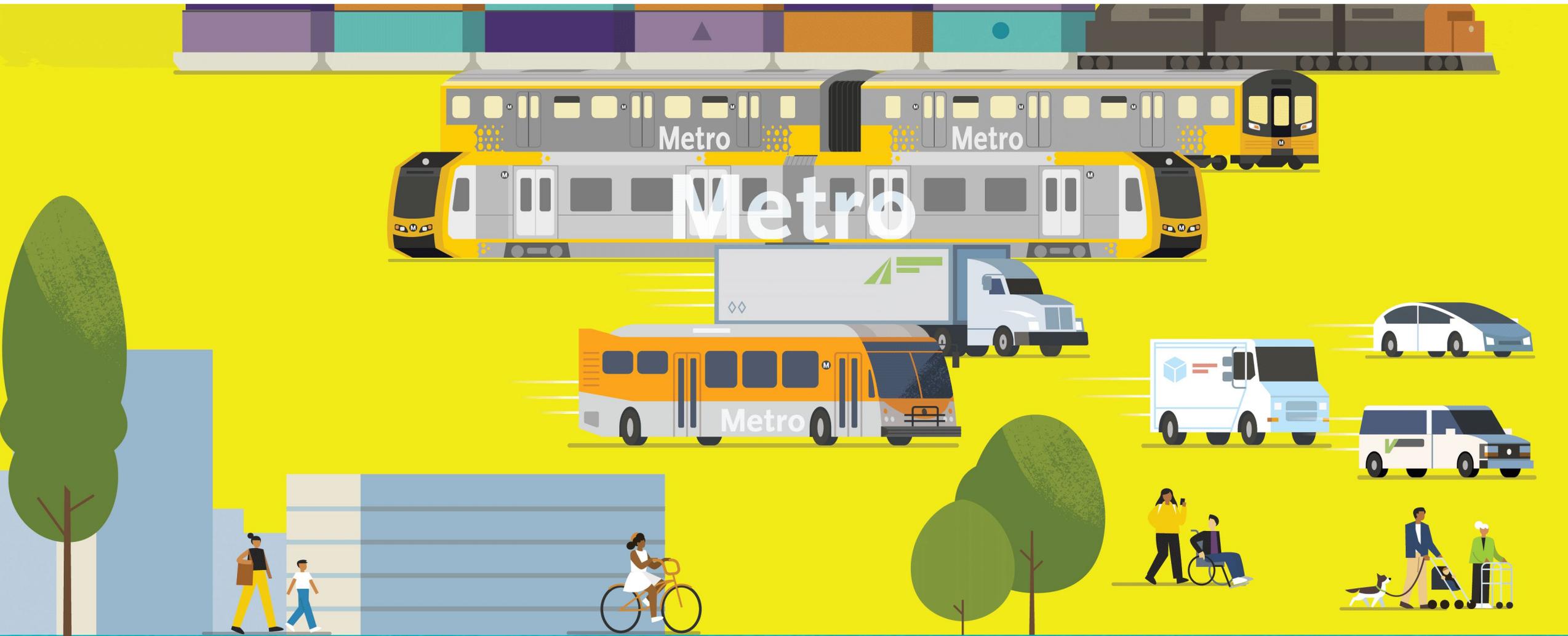
Given the 710 Task Force's pending Vision Statement, Guiding Principles, and Goals, we, further direct that the 710 South Corridor Project shall be renamed, in consultation with the 710 Task Force

and corridor stakeholders, in order to be more inclusive of the priorities and approaches that will be advanced in the future of this project, with attention to more than just the freeway, with a new name to be presented to the Board for consideration and approval in September 2022.

Given that capacity expansion freeway widening will not get support from Caltrans or the U.S. EPA, we adopt as Board policy that capacity expansion freeway widening will no longer be in the project.

We, therefore, further direct the Chief Executive Officer to:

- A. Develop and Implement a project Investment Plan, which:
1. Incorporates feedback from the 710 Task Force and its Working Groups and Community Leadership Committee, the Corridor Cities, and the Gateway Cities Council of Governments, and community stakeholders;
 2. Aligns initiatives with funding opportunities, including:
 - a. An Early Investment Plan for a minimum of three initiatives that will apply for available State and Federal funding opportunities in Calendar Year 2022; and
 - b. A Mid- and Long-Term Investment Plan for initiatives that can reasonably apply for Federal and State funding opportunities in out years;
 3. Leverages applicable Measure R and Measure M funds to maximize deliverables and Federal and State funding matches;
 4. Provides a suite of major investments that can be completed no later than 2028;
 5. Identifies Federal funding opportunities that can be incorporated into the Infrastructure Investment and Jobs Act “Grants Strategy and 5-Year Implementation Plan” currently under development for presentation to the Metro Board;
- B. Engage the California Department of Transportation and State Transportation Agency, California Air Resources Board, California Energy Commission, and the U.S. Departments of Energy and Transportation and U.S. Environmental Protection Agency, to develop guidance around the Mid- and Long-Term Investment Plan.
- C. Engage city, county, and regional partners, including the South Coast Air Quality Management District and Los Angeles Cleantech Incubator, to organize and support local initiatives as part of the project’s Investment Plan; and
- D. Report back in September 2022 on the development and implementation of this Investment Strategy, including the minimum of three initiatives applying for available State and Federal funding in Calendar Year 2022.



We're developing a new vision for the
Long Beach-East Los Angeles Corridor Mobility Investment Plan

ATTACHMENT D

LB-ELA Corridor Investment Plan Phases and Milestones

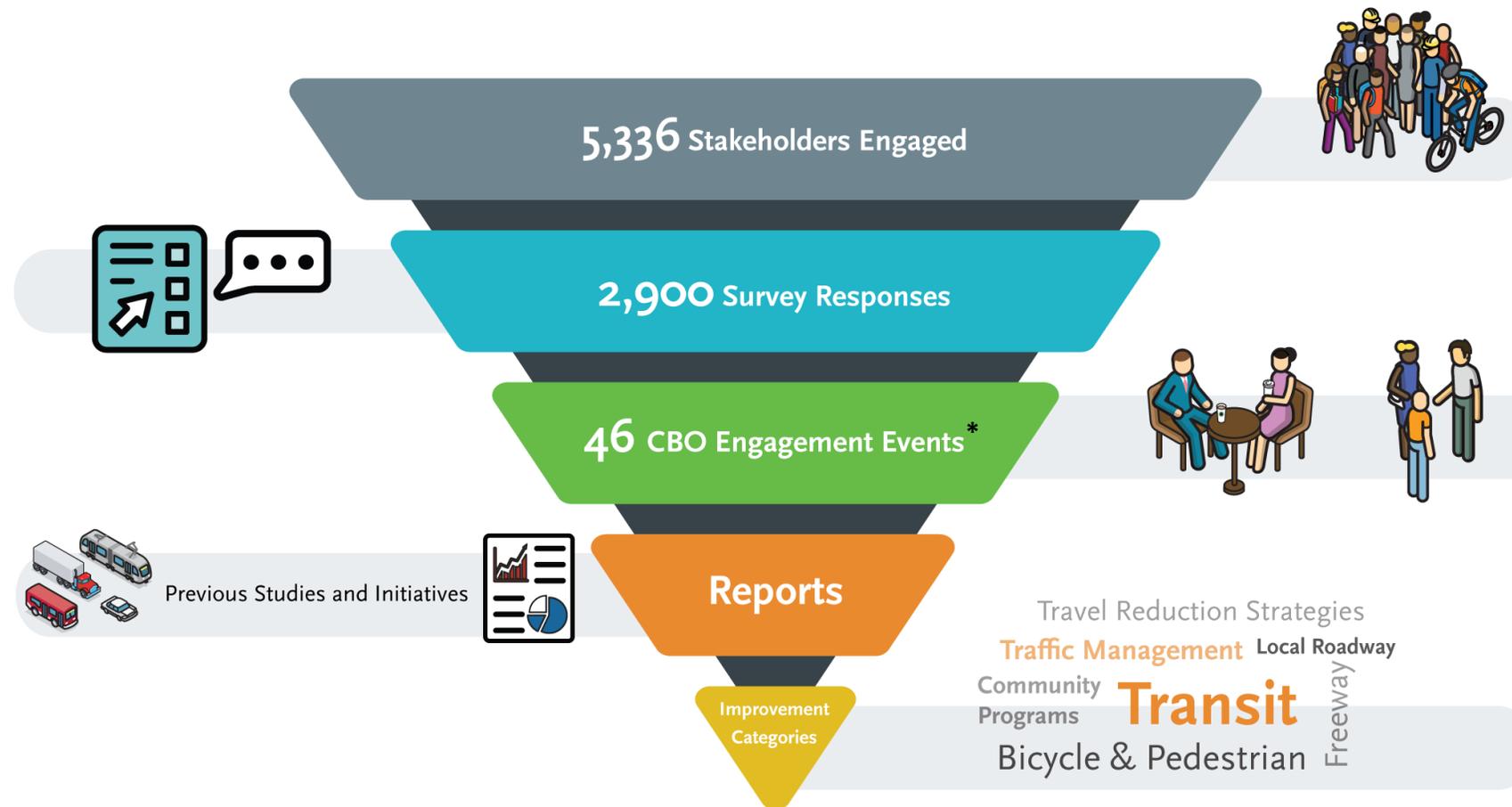


* Draft Investment Plan to be Presented to the Board in late November



- ◆ Board Action and Milestone Decision
- ◆ Board Status Report

Initial List of Projects & Programs: Sources



Initial List of Projects & Programs

Online Public Engagement: Social Pinpoint and Survey

955

Map Comments

1739

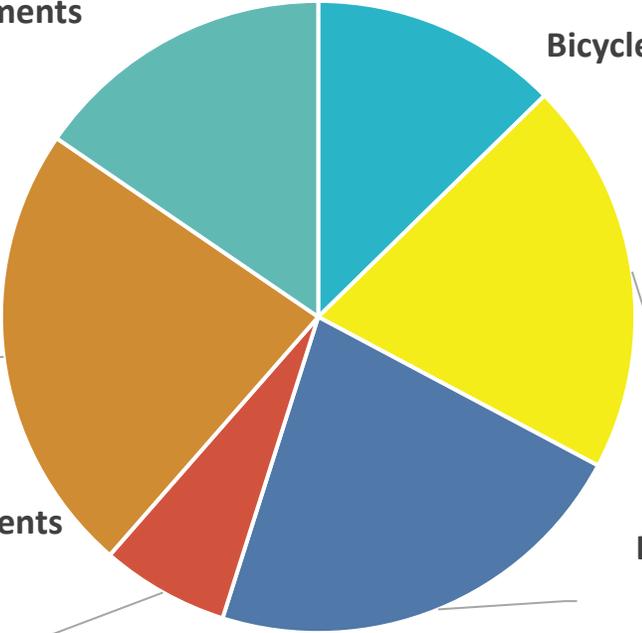
Survey Responses

Mapping Comments by Type

Transit (Bus or Rail) Improvements
15%

Pedestrian Improvements
23%

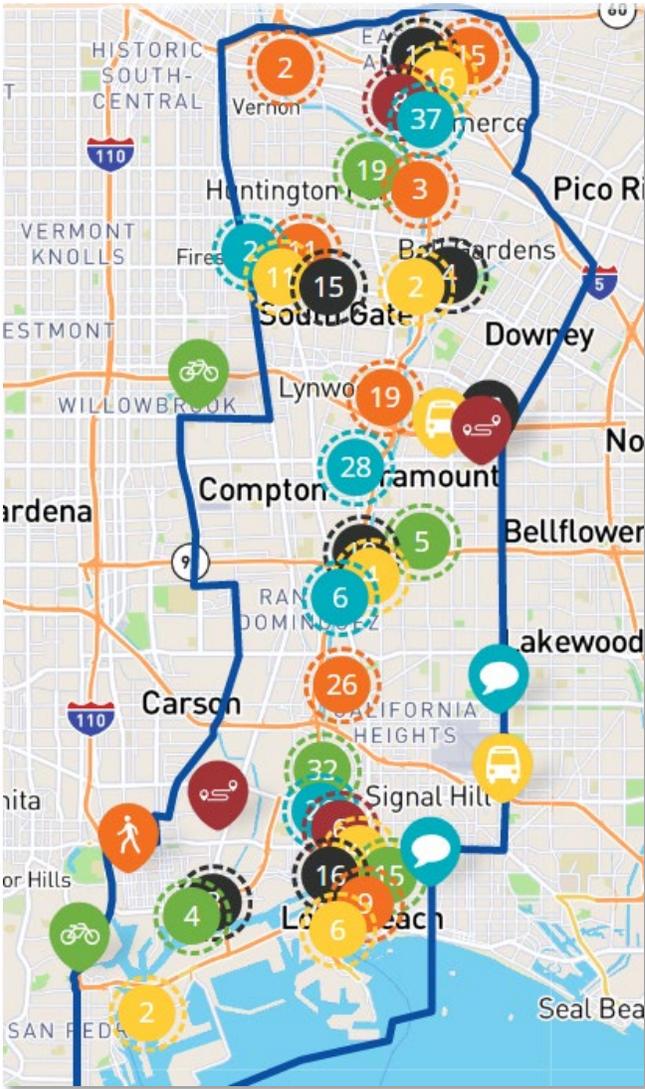
Other Mobility Improvements
7%



Bicycle Improvements
13%

General Comments,
Concerns, or Issues
20%

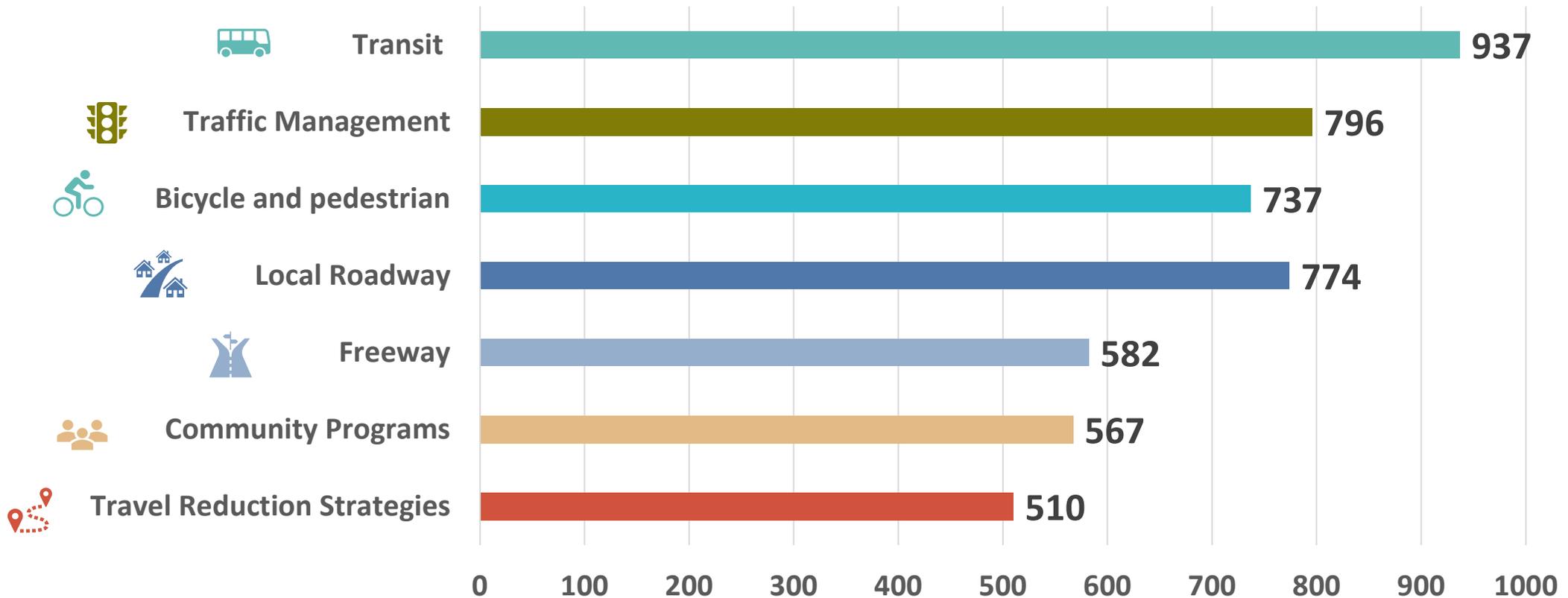
Local Roadway (Vehicle)
Improvements
22%



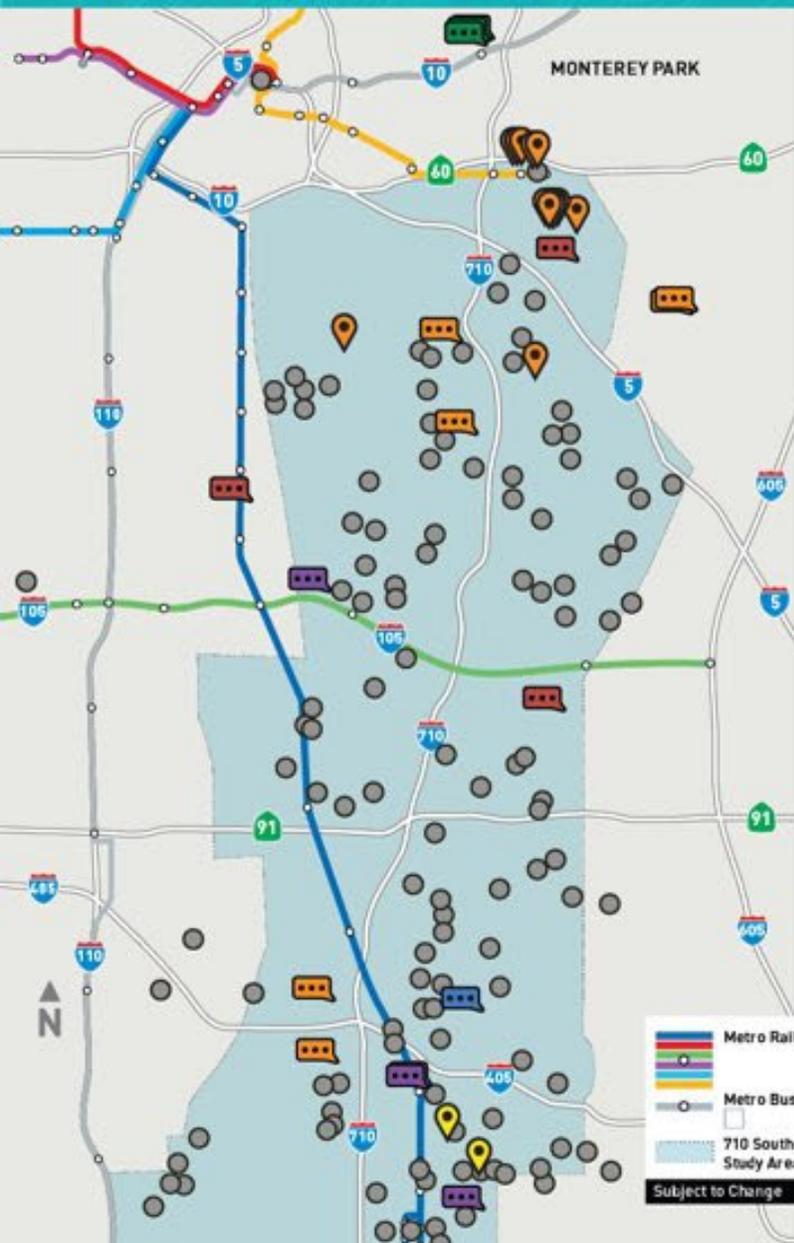
Survey Responses

Based on your experience and on the needs of your community, what type of projects, programs, or improvements would you most like to see implemented within your community and the I-710 Corridor?

Improvement Categories



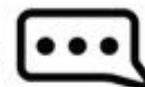
Community-based Organization (CBO) & Public Engagement/ *Participación de las organizaciones comunitarias y del público*



28 CBO Engagement Events/*Eventos de CBO*



18 Pop-up and Workshop Events/*Eventos emergentes y talleres*



All Groups
Todos grupos



Senior Groups
Grupos de personas mayores



Labor Unions
Los sindicatos



Cultural Groups
Grupos culturales



Faith Based Groups
Grupos basados en la fe



Student Groups
Grupos de Estudiantes

4800 flyers in multiple languages distributed at
folletos distribuidos en varios idiomas

166 locations throughout the corridor
distribuidos en lugares clave a lo largo del corredor

Engagement efforts as of the date of this presentation.
Esfuerzos de participación a la fecha de esta presentación.

Community-based Organization (CBO) & Public Engagement/ *Participación de las organizaciones comunitarias y del público*

11

CBO partners
socios de la CBO



5,466



stakeholders engaged so far at events
partes interesadas involucradas hasta ahora en eventos



2,495+

survey/map responses collected
encuestas/mapas de respuestas recopiladas



8,638

collateral pieces distributed at events in
English, Spanish, Khmer and Tagalog
*piezas colaterales distribuidas en eventos en
inglés, español, jemer y tagalo*

2

digital stakeholder survey campaigns
prepared with a combined total of
***campañas digitales de encuestas a las
partes interesadas preparadas con un total
combinado de***



1,464,381

impressions
impresiones

Goals



Evaluation Process Timeline

Now that we have the Initial List of Project and Programs, we will perform the evaluation with public input along the way.

Spring 2023



Run Models & Evaluate Projects

Technical models will be run to test the performance of the projects, bundled by project type.

Based on the findings of and the project's "facts," projects will be analyzed. Some may be "flagged."

Summer 2023



Screen Projects

The evaluation will be shared and discussed and used to screen projects.

Fall 2023



Refined List & Prioritization

Once the list is refined, projects will be prioritized and then packaged into the Investment Plan.

Winter 2023/24



**Draft
Investment
Plan**



Evaluation Criteria: Four Categories

ALIGNMENT WITH GOALS

Gauge how well projects/programs aligns with LB-ELA goals and vision

1

PROJECT CONCERNS

Identify potential concerns and negative impacts that should be highlighted

4

EQUITY

Does the project advance equity in the corridor?

2

SUSTAINABILITY

Does the project advance sustainability in the corridor?

3



FLAGS FOR ADDITIONAL CONSIDERATION

Add 'Flags' following evaluation that capture other project considerations

'Flags' for Additional Consideration

"Equity Flag"

Indicates if a project received a low Equity score based on performance metrics. Initiates a discussion of why the project scored low and if there are opportunities for improvement.

Example: Potential to slow car traffic within an EFC area

Example: Provides traffic safety or travel time improvements, but without any benefits to EFC areas

"Community Input Consideration Flag"

Captures concerns or support from Task Force/CLC/Working Group input that aren't captured by performance metrics

Example: Specific concerns around implementation, distribution of benefits for a project

Example: Existing buy-in/support from advocacy groups or CBOs for a project

Equity Planning and Evaluation Tool (EPET) Metro Equity Needs Index (MENI)

Metro's **Equity Planning and Evaluation Tool (EPET)** pilot can be found [here](#).

The **Metro Equity Need Index (MENI)** can be found [here](#)

CLC Meeting Summaries

Meeting #14 (April 20, 2023): [LINK](#)

ATTACHMENT E

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Initial List of Projects & Programs

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0007	LA River Path – Central LA	An eight-mile bicycle and pedestrian path gap closure between Elysian Valley and Maywood, through downtown Los Angeles.	Maywood to Elysian Valley	Metro LRTP, SPP Survey, SPP Mapping	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0017	Regionally significant bike projects from the Metro Active Transportation Plan	Implement regionally significant active transportation projects adopted as part of the Metro Active Transportation Plan (over 40 projects throughout the study area). See Attachment A for more detail.	Multiple Jurisdictions	Metro ATSP, SPP Survey, SPP Mapping, CA-7	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0055	I-710 LA River Bike Path	Proposed walking/bicycling path along the LA River, specifically along I-710, which connects Maywood to Long Beach.	Multiple Jurisdictions	SHOPP, SPP Survey	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0066	Randolph Bike & Pedestrian Project	Randolph, from Bell western city limit to eastern city limit. Complete Phase 2 of the Randolph Metro Active Transportation (MAT) Corridor.	Bell	City of Bell/COG, SPP Mapping	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0111	West Santa Ana Branch Bike & Pedestrian Trail	Implement Phases 1-4 of Bike & Pedestrian Trail (Class I) along RR ROW between LA River and Sommerset. Includes lighting, fencing, landscaping, flashing beacons, decomposed granite, ADA curb ramps and street furniture.	Multiple Jurisdictions	City of Paramount/COG, SPP Mapping, PIPO	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0128	Randolph Street Bike and Pedestrian Facilities Project	This project would involve the construction of bike and pedestrian facilities on Randolph St from District Blvd to the Los Angeles River Trail System.	Maywood	PIPO (City of Maywood), SPP Mapping	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0162	City of Long Beach 8-to-80 Bikeways	Implement planned 8-to-80 bikeway projects adopted as part of the City of Long Beach Bicycle Master Plan within the LB-ELA Corridor, including gap closure projects, backbone facilities, and pipeline bikeways (over 40 projects within the study area). See Attachment A for more detail.	Long Beach	City of Long Beach Bicycle Master Plan, SPP Survey, CA-7	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0163	LB-ELA Corridor Bicycle Gap Closure Projects	Implement regionally significant bicycle projects in areas with insufficient existing and planned bicycle infrastructure within the LB-ELA Corridor (several projects within the study area). See Attachment A for more detail. Would include potential routes identified by the community, but which will require further planning and design in cooperation with the local jurisdictions (Cities, County of Los Angeles).	Multiple Jurisdictions	SPP Mapping, CA-7	Active Transportation / TDM	Bicycle Routes / Facilities
LB-ELA_0005	Rail to River Active Transportation Corridor Segment A	A 5.6-mile active transportation path connecting the Fairview Height Station of the soon-to-be-open Crenshaw Line in Inglewood to the Slauson A (Blue) Line station in South Los Angeles.	Multiple Jurisdictions	Metro LRTP, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0006	Rail to River Active Transportation Corridor Segment B	An approximate 4.5-mile active transportation corridor between the LA River to the Slauson A (Blue) Line station that connects to Segment A.	Multiple Jurisdictions	Metro LRTP, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0008	Blue Line First Last Mile Plan Improvements	Implement projects identified in the Blue Line First/Last Mile Plan within the LB-ELA Corridor, with an emphasis on Del Amo Station. Projects to include ramp reconfigurations, sidewalk and bike lane improvements, and crossing improvements, among others. The First/Last Mile (FLM) Plan for the Blue Line was adopted in April 2018 and represents a first-of-its-kind effort to plan comprehensive access improvements for an entire transit line. The Plan covered all 22 stations on the Metro A (Blue) Line and piloted an inclusive, equity focused community engagement process. The Plan included planning-level,	Multiple Jurisdictions	Metro LRTP, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		community-identified pedestrian and bicycle improvements within walking (1/2-mile) and biking (3-mile) distance of each A Line station.				
LB-ELA_0070	Pedestrian Bridge	Construct Pedestrian Bridge (Connecting Asmus Park to planned West Santa Ana Branch LRT Station)	Bell Gardens	City of Bell Gardens/COG	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0076	Pedestrian and Bike Facilities	Provide pedestrian facility improvements. Provide safe routes for bike riders. (Various locations within the City of Commerce)	Commerce	City of Commerce/COG, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0082	Enhanced Pedestrian Crosswalk (Rives Ave. & Adwen St.)	Enhance pedestrian cross walk at Rives Ave. & Adwen St.	Downey	City of Downey/COG	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0094	Hill Street Pedestrian Bridge Overcrossing	Construct bridge over the I-710 and Los Angeles River at Hill Street for pedestrians and bicyclists.	Long Beach	City of Long Beach/COG, I-710 Motion 5.1/5.2 Early Action Concept	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0102	Pedestrian and Bicycle Master Plan improvements	Provide pedestrian facility improvements. Provide safe routes for bike riders. (Various locations within the City of Maywood per the city's master plan)	Maywood	City of Maywood/COG, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0114	Walnut Pedestrian Pathway	Provide pedestrian pathway along 25 th Street, from west of Walnut Avenue to Gundry Avenue	Signal Hill	City of Signal Hill/COG, SPP Survey	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0138	Spring Avenue Pedestrian/Bicycle Overcrossing	Construct bridge over the I-710 and Los Angeles River at Spring Street for pedestrians and bicyclists.	Long Beach	I-710 Motion 5.1/5.2 Early Action Concept	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0139	Humphreys Avenue Pedestrian/Bicycle Overcrossing	Construct bridge over I-710 along Humphreys Avenue for pedestrians and bicyclists.	East LA	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0158	Del Amo Pedestrian Gap Closure Project	Provide sidewalks and lighting at Del Amo undercrossing at the I-710 freeway. Currently there are no existing sidewalks. Would also help those seeking walk access to Del Amo LRT Station.	Ranch Dominguez / Long Beach	SPP Mapping	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0159	Southern Ave. Pedestrian Connector Project	New pedestrian path along Southern Ave./East Frontage Rd./Miller Way/West Frontage Road to connect Garfield Ave. with Urban Orchard Park	South Gate	SPP Mapping	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0204	Pedestrian Gap Closure Projects	Close gaps within the pedestrian circulation network in communities within the LB-ELA Corridor through the implementation of new pedestrian facilities. A funding program would be made available to award financial resources to local jurisdictions (Cities, unincorporated areas of Los Angeles County) on a competitive basis to design and construct new pedestrian facilities in areas where this infrastructure is currently missing. Projects would include:	Study Area Wide	SPP Survey, SPP Mapping, CA-7	Active Transportation / TDM	Pedestrian / First Last Mile

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		<ul style="list-style-type: none"> - New sidewalks and pedestrian paths - Extensions of existing pedestrian paths/trails - Pedestrian/bicycle overpasses - New Crosswalks/Signals for Pedestrians - Provision of connections and access to existing trails (for example, greater access to Los Angeles/Rio Hondo River Trail) - Provision of pedestrian access/connections to existing and planned Metro transit stations/stops - Implementation of Safe School Pedestrian/Biking Zones 				
LB-ELA_0211	City of Long Beach Mid-City Pedestrian and Bicycle Connections	Create an interconnected network of walking and bicycle routes including creation of bicycle boulevards along 8 th and 11 th Streets. Includes active transportation network south of Anaheim Street, north of 7 th Street, east of Long Beach Boulevard, and west of Cherry Avenue within the City of Long Beach.	Long Beach	PIPO	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0213	West Santa Ana Branch [WSAB] Light Rail Station First-Last Mile Bikeway Safety and Access Project	Install 0.3 miles of sidewalk, 1.5 miles of bicycle lanes (Class II), 2 miles of bike route sharrows (Class III), street lighting, center median islands, curb ramps, and a rest area near the LA River Bike Path. Located in the eastern quadrant of the City of South Gate, along the existing Union Pacific Railroad /future West Santa Ana Branch Transit Corridor.	Multiple Jurisdictions	PIPO	Active Transportation / TDM	Pedestrian / First Last Mile
LB-ELA_0220	Micromobility Pilot Project	<p>Develop a pilot project along Long Beach Boulevard/Pacific Boulevard between Ocean Boulevard [Long Beach] and East. 57th Street [Vernon] in order to evaluate the design and implementation of Micromobility features along this planned Complete Streets Corridor. Micromobility is defined as any small, low-speed, human or electric-powered device, including bicycles, scooters, electric-assist bicycles (e-bikes), electric scooters (e-scooters), and other small, lightweight, wheeled conveyances. Micromobility devices help to close first- and last-mile gaps to transit and can offer individuals greater access to jobs, health care, and other services. Powered and adaptive micromobility devices may also increase mobility for older adults or individuals with disabilities, as they are less strenuous to operate than traditional bicycles or scooters. The Micromobility Pilot Project would test and evaluate various concepts, including but not limited to:</p> <ul style="list-style-type: none"> - Protected Bicycle Lanes. These lanes physically separate micromobility users from vehicles and pedestrians. These should be designed to accommodate electric and non-electric modes. Streets with speed limits above 30 miles per hour should include a protected lane. - Speed Limits. For example, micromobility devices should self-regulate their speeds below 15 miles/hour to use the protected lane or should ride in the road. - Enforcement / Signage. Motorcycles and other high-speed devices not permitted in the protected lanes. - Designated Parking Stations. Provide designated parking areas for all types of micromobility devices and keep devices out of pedestrian rights of way. - Examine policies and regulations that would permit private companies to operate shared micromobility services, including e-scooters and e-bicycles, to the communities. 	Multiple Jurisdictions	Task Force	Active Transportation / TDM	First / Last Mile
LB-ELA_0090	Rectangular Rapid Flashing Beacons at Pedestrian Crossings	Install rectangular rapid flashing beacons (RRFBs) at Pedestrian Crossings at various locations within the City of Long Beach.	Long Beach	City of Long Beach/COG, SPP Survey	Active Transportation / TDM	Safety and Amenities
LB-ELA_0095	Pedestrian Crosswalk Improvements	Provide pedestrian crosswalk improvements (pedestrian buttons, signage, and electrical infrastructure) at Rosewood/Abbott, Mallison/Abbott, Long Beach/Tecumseh, Imperial/Ruth & Atlantic/Brewster intersections. (Phase 1)	Lynwood	City of Lynwood/COG, SPP Survey	Active Transportation / TDM	Safety and Amenities
LB-ELA_0165	Compton Creek Bike Underpasses	Along Compton Creek Bike Path, between 120 th Street and Greenleaf Blvd., construct bike path under-crossings at 120 th Street, El Segundo Ave., Rosecrans Ave., Compton Ave., and Alondra Ave. Add lighting, landscaping, benches, and shade to the existing path.	Compton	SPP Mapping, Community Leadership Committee (CLC)	Active Transportation / TDM	Safety and Amenities

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0170	Huntington Park Safe Routes for Seniors & Students	Project will construct curb ramps, crossing improvements, sidewalks, wayfinding, speed-calming, and other active transportation improvements for pedestrians on segments of Belgrave Ave., Clarendon Ave., E. 61 st St., Randolph St., Seville St., Zoe Ave., State St., Yahualica Place, and walking/biking paths adjacent to Veteran's Park. Includes 130 curb ramps and high-visibility crosswalks, 3 raised islands, 1 HAWK beacon, 3,266 linear feet of sidewalks, 20 wayfinding signs, 10 flashing beacons, 329 illuminated bollards, 20 speed humps, 10 raised crosswalks, wastebins, and shade trees.	Huntington Park	PIPO (Huntington Park), SPP Survey	Active Transportation / TDM	Safety and Amenities
LB-ELA_0200	Bike Share Programs and Bicycle Amenities	This initiative would build upon Metro's existing Bike Share Program framework, focusing on the LB-ELA Corridor. This involves collaboration with local jurisdictions (Cities, County of Los Angeles), non-profit organizations, and/or creating public-private partnerships for purpose of expanding access to bike share programs and for the provision of key amenities for bicycle users within the LB-ELA Corridor Study Area. Financial support would be provided to help leverage local funding for small scale capital projects such as: bicycle parking and storage lockers; lighting for bike paths; bicycle repair/maintenance stations; signage and wayfinding; electric bicycle charging stations; and safety features.	Study Area Wide	SPP Survey, SPP Mapping, CA-7	Active Transportation / TDM	Safety and Amenities
LB-ELA_0201	Pedestrian / Bicycle Enhancements and Safety Features	Work with the local jurisdictions (Cities, unincorporated areas of Los Angeles County) to improve safety and enhance the walking/biking environment throughout the LB-ELA Corridor. Active transportation measures and features would include items such as: <ul style="list-style-type: none"> - Shade structures, trees, benches, and trash cans; - Wider sidewalks, bulb outs, upgrades to crosswalks, and ADA accessibility improvements (including repositioning utility boxes on sidewalks); - Stop signs, traffic signals, pedestrian/bicycle signal phases, colored pavement markings, signage and striping; - Alternative traffic signal phasing options, such as "scramble" pedestrian crossings; - Flashing crosswalks, and other traffic controls such as pedestrian flashing beacons; - Lighting along pedestrian/bicycle paths, including under-crossings; - Landscaping, hardscaping, and other aesthetic features; - Protection buffers and barriers, improved fencing Provide technical and grant writing assistance to local jurisdictions, if requested, to define and develop potential projects. Provide financial support in order to help leverage local funds for project construction and implementation. Funds would be made available based on criteria such as: project need, project readiness, and project benefits relative to costs, among other factors.	Study Area Wide	SPP Survey, SPP Mapping, CA-7, Community Leadership Committee (CLC)	Active Transportation / TDM	Safety and Amenities
LB-ELA_0206	City of Bell Gardens Pedestrian and Bicycle Improvements	Citywide pedestrian, bike and traffic calming improvements to create a complete streets environment – cross walks, mini traffic circles, HAWK pedestrian signals, curb extensions, Class 3 bike routes, ADA ramps, Leading Pedestrian Interval [LBI] signal timing, and striping improvements. Would be applied to various locations within the City of Bell Gardens, including: Sprecht Ave., Live Oak St., Priority St., Purdy Ave., Gephart Ave., Perry Rd., and Hannon St.	Bell Gardens	PIPO	Active Transportation / TDM	Safety and Amenities
LB-ELA_0207	City of Carson Citywide Community Safety Improvements	Improve bicycle and pedestrian infrastructure and safety with Class 2 bike lanes, bike racks, crosswalk improvements, Accessible Pedestrian Signal push buttons, countdown pedestrian signals, and curb ramps. Various locations within the City of Carson and Santa Fe Avenue between 218 th Place and Del Amo Boulevard.	Carson	PIPO	Active Transportation / TDM	Safety and Amenities
LB-ELA_0208	Salt Lake Avenue Pedestrian Accessibility Project	East side of Salt Lake Avenue within the City of Cudahy. Widen sidewalk, install pedestrian lighting, signage, curb extensions, and ADA compliant wheelchair ramps.	Cudahy	PIPO	Active Transportation / TDM	Safety and Amenities
LB-ELA_0209	South Downey Safe Routes to School Project (Phase 2)	Safety education and construction of sidewalks, crosswalks, and curb ramps. Various locations within South Downey: Brunache St., Laura St., Nada St., Pomeroy Rd, Quoit St., Lankin St., Orizaba Ave., Gneiss Ave., Devenir Ave., Blodgett Ave. and Premiere Ave.	Downey	PIPO	Active Transportation / TDM	Safety and Amenities

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0210	Greenway Traffic Circle Improvement Project	At the intersection of Rives Avenue / Phlox Street in the City of Downey, construct traffic circle, bulb outs with directional curb ramps, enhanced crosswalks, signage, landscaping, shade, and bioswales.	Downey	PIPO	Active Transportation / TDM	Safety and Amenities
LB-ELA_0212	Tweedy Boulevard Active Transportation Improvements	Install improvements on Tweedy Boulevard to improve non-motorized user safety and promote walking, biking, and use of local transit. Tweedy Boulevard, between Alameda Street and Dearborn Avenue and between Dorothy Avenue and the Los Angeles River Bicycle Trail, within the City of South Gate.	South Gate	PIPO	Active Transportation / TDM	Safety and Amenities
LB-ELA_0214	I-710 Livability Initiative	A compendium of proposed projects and improvements as outlined in the I-710 Livability Initiative conceptual plan. Proposed projects include improvements such as: <ul style="list-style-type: none"> - Lighting for people walking/biking. - New/improved bike lanes and bike amenities. - New improved sidewalks and cross walks. - Landscaping and shade. Public art. - Improved bus stops. Improved curbs. Street furniture. - Traffic calming to slow speeds. - New connections and crossings. Improve under/overpasses. Proposals address improvements along a network of 21 east-west and 6 north-south roadway segments located within one-mile of I-710.	Multiple Jurisdictions	COG Ad Hoc Committee	Active Transportation / TDM	Safety and Amenities
LB-ELA_0216	Bicycle Safety and Education Program (BEST)	Expand Metro’s efforts to promote bicycle safety and improve roadway awareness for bicyclists, pedestrians, bus operators, and motorists within the Long Beach-East Los Angeles Corridor communities. This program includes: <ul style="list-style-type: none"> - Education and encouragement campaigns to promote a shift from driving to more walking, bicycling, and the use of public transit. - Bicycle skills and traffic safety classes. - Community rides. Safe Routes to Schools rides. - Collaboration with key stakeholders in the development of campaigns and printed materials such as safe riding kits for bicycle safety class participants. 	Study Area Wide	Task Force, Community Leadership Committee (CLC)	Active Transportation / TDM	Safety and Amenities
LB-ELA_0198	Carpool/Vanpool Programs	Extend Metro’s carpool and vanpool programs by focusing on the LB-ELA Study Area. Carpooling is an inexpensive and effective travel option that involves finding nearby commuters to share the ride. Provide access to ride-matching services to find nearby residents looking to carpool. In addition, promote vanpool services, including coordination, administration support, and financial subsidies for commuters especially in areas less served by transit operators.	Study Area Wide	SPP Survey	Active Transportation / TDM	Travel Demand Management (TDM) Strategies
LB-ELA_0199	Telecommuting Programs	Building upon “lessons learned” during the COVID pandemic, encourage employers to modify their work policies to retain hybrid work schedules, flexible work hours, and “work from home” options. Coordinate with public agencies and large employers. Share research/promote studies on the effectiveness of telecommuting. In addition, identify supportive infrastructure for telecommuting. Expand broadband capacity and internet service provider (ISP) capabilities within the LB-ELA Corridor by co-locating digital communications infrastructure (such as fiber optic cable) with major public works projects and infrastructure.	Study Area Wide	SPP Survey	Active Transportation / TDM	Travel Demand Management (TDM) Strategies
LB-ELA_0010	Shoemaker Bridge/Shoreline Drive	I-710 Improvements/Shoemaker Bridge Replacement: Replace the Existing Shoemaker Bridge with a New Bridge. The New Bridge Will Be Reduced to Have Two Mixed-Flow Lanes in the NB and in the SB Directions to Tie the Flow into I-710. The New Bridge Will Also Include Pedestrian and Bicycle Access. Additionally, Bicycle, Pedestrian, and Street Enhancements Will Be Provided on Adjacent Thoroughfares.	Long Beach	SCAG RTP, PIPO, City of Long Beach/COG	Arterial Roadway	Complete Streets
LB-ELA_0056	Artesia Complete Street Corridor	Artesia Blvd., between Central Ave. and Lakewood Blvd. Reconstruct Artesia Blvd. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art	Multiple Jurisdictions	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets

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Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		(aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.				
LB-ELA_0057	Atlantic Complete Street Corridor	Atlantic Ave./Blvd., between Ocean Blvd. and SR-60. Reconstruct Atlantic Ave./Blvd. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Multiple Jurisdictions	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0058	Florence Complete Street Corridor	Florence Ave., between Alameda St. and Lakewood Blvd. Reconstruct Florence Ave. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Multiple Jurisdictions	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0059	Imperial Complete Street Corridor	Imperial Hwy., between Alameda St. and Lakewood Blvd. Reconstruct Imperial Hwy. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Lynwood/South Gate/Downey	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0060	Alondra Complete Street Corridor	Alondra Blvd., between Central Ave. and Lakewood Blvd. Reconstruct Alondra Blvd. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Compton/Paramount	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0061	Slauson Complete Street Corridor	Slauson Ave., between Alameda St. and Lakewood Blvd. Reconstruct Slauson Ave. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Multiple Jurisdictions	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0062	Long Beach Complete Street Corridor	Long Beach Blvd./Pacific Blvd. Reconstruct Long Beach Blvd./Pacific Blvd., between Ocean Blvd. and Slauson Ave. to establish a Complete Street Corridor, including: bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	Multiple Jurisdictions	COG/Cities/County, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0064	Gage Avenue Street Improvements	Gage Ave., from Bell western city limit to eastern city limit. Upgrade Gage Ave. to provide safety and aesthetic features (drought tolerant landscaping, hardscaping). Proposed improvements will include new pedestrian sidewalks, street lighting, street furniture, bus shelters, parkway landscaping, monument entry signs, and drainage enhancements with the installation of curb drains and drywells in the project site.	Bell	City of Bell/COG	Arterial Roadway	Complete Streets
LB-ELA_0086	Gage Avenue Operational and Safety Improvements	Between Alameda Street and Atlantic Blvd., upgrade Gage Avenue to provide operational and safety improvements.	Bell/Huntington Park	City of Huntington Park/COG	Arterial Roadway	Complete Streets
LB-ELA_0126	Slauson Avenue Corridor & Citywide Pedestrian, Bike, Transit Improvements	Project focuses on pedestrian, bike, & transit safety improvements along the Slauson Avenue, between I-710 and I-5, as well as 10 other unsignalized intersections or midblock crossings citywide. The project location includes the 2.6-mile Slauson Avenue corridor between I-710 and I-5 freeways and 10 unsignalized intersections or midblock crossings citywide.	Commerce	PIPO (City of Commerce), SPP Survey	Arterial Roadway	Complete Streets

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Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0127	Lakewood Boulevard Improvement Project	Lakewood Blvd., between Del Amo Blvd. and Ashworth Street. The project would install a Class I Bike Path and pedestrian sidewalk in the parkway area and will construct minor roadway capacity enhancements on Lakewood Boulevard. Project includes 1.5 miles of new bicycle and pedestrian facilities, utility undergrounding, traffic signal improvements, LED street lighting, ADA enhancements, and green street improvements such as landscaped median islands, parkway trees, and stormwater retention.	Lakewood	PIPO (City of Lakewood), SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0129	Garfield Avenue Improvement Project	Garfield Avenue, between Century Boulevard and Firestone. The project would transform the corridor to a more attractive and pedestrian and bike friendly environment. Improvements include: (a) implementing new bicycle facilities including bike racks, Class II Bike Lanes and Class III Bike Routes, (b) pedestrian improvements including flashing beacons, curb extensions and sidewalks, (c) raised, landscape center road medians, (d) enhancing the bus shelters, and (e) adding roadway signing and striping.	South Gate	PIPO (City of South Gate), SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0117	Burnett Street/Skyline Drive Improvement Project	Improve Burnett Street/Skyline Drive, including the addition of Bike Lanes, between East Walnut Avenue and Dawson Avenue. Installation of sidewalks between Gaviota Avenue and Cherry Avenue, Class 2 bike lanes between Walnut Avenue and Dawson Avenue, and related roadway amenities/improvements.	Signal Hill	City of Signal Hill/COG, SPP Survey	Arterial Roadway	Complete Streets
LB-ELA_0003	Integrated Corridor Management (ICM) Project	ICM is an Intelligent Transportation System (ITS) strategy to manage non-recurring congestion along a corridor by utilizing advanced technologies and systems. ICM components include active monitoring of all transportation modes and facilities within the corridor, on and off the freeway, including ramp metering, traffic signal coordination, incident traffic management, advanced traveler information system, and other advanced technologies and techniques. Would be applied on I-710 and a network of key connecting arterials, within the LB-ELA Corridor between SR-91 and SR-60.	Multiple Jurisdictions	Metro LRTP, PIPO, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0013	Tweedy Blvd Signal Sync	Tweedy Boulevard Signal Synchronization Project: (1) Interconnects 18 Traffic Signals Using Fiber Optic Cable And Wireless Communications (2) Synchronizes Signal Timing To Improve Traffic Flow, And Reduces Delays Along The 2.7-Mile Arterial and (3) Install A Closed Circuit Television Camera (CCTV) At The Intersection Of Long Beach Bl., to Support the Advance Transportation Management Systems (ATMS).	Lynwood/South Gate	SCAG RTP, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0020	Sports Park Transportation Performance Modeling Network	Traffic signal controller and cabinets upgrades and the installation of fiber optic communication infrastructure to provide redundant high bandwidth network in Long Beach within the LB-ELA Corridor. The purpose of these equipment upgrades is to improve traffic signal coordination and strengthen data connections among traffic management systems.	Long Beach	Metro 2028 Mobility Concept Plan	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0051		Route 1. In Los Angeles County, on various routes at various locations. Upgrade existing fiber communication system and rehabilitate Transportation Management System (TMS) elements, including video cameras, ramp meters, and Changeable Message Signs (CMS).	Multiple Jurisdictions	SHOPP, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0069	Traffic / Ped Signal Upgrades	Targeted upgrades to 38 intersections, citywide, in the City of Bell Gardens. Would replace outdated infrastructure such as signal poles, cabinets, pedestrian poles, and vehicle detection systems.	Bell Gardens	City of Bell Gardens/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0071	Mixmaster Traffic signal Improvements (Telegraph/ Eastern/ Atlantic)	Traffic signal upgrade at Telegraph / Eastern / Atlantic. Also consider improvements such as turning lane pavement markings, striping, and enhanced signage so that approaching traffic can get properly aligned well in advance of this intersection.	Commerce	City of Commerce/COG, Community Leadership Committee (CLC)	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0072	Traffic Signal Coordination Projects	Various arterials within the City of Commerce	Commerce	City of Commerce/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS

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Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0074	Traffic Signal Upgrades	Upgrade various signals within the City of Commerce	Commerce	City of Commerce/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0075	Video Camera installation	Video Camera installation on all Signalized intersections within the City of Commerce	Commerce	City of Commerce/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0081	Firestone Blvd. Traffic Signal Upgrades & Safety Enhancements	Along Firestone Boulevard between Downey West City Limit and Lakewood Boulevard, provide traffic signal updates and safety enhancements.	Downey	City of Downey/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0083	Traffic Signal Upgrades	Along Florence Ave., between Downey Ave. & Brookshire Ave., upgrade traffic signals	Downey	City of Downey/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0084	Video Detection Upgrades	At 25 intersections in various locations within the City of Downey, provide video detection upgrades.	Downey	City of Downey/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0087	Traffic Signal Equipment Improvements	Upgrade traffic signal equipment at various locations within the City of Long Beach	Long Beach	City of Long Beach/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0089	Emergency Vehicle Pre-Emption	Install emergency vehicle pre-emption (EMVE) for traffic signals at various locations within the City of Long Beach.	Long Beach	City of Long Beach/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0096	Traffic Signal Improvements	Install new traffic signals and signage at the following locations: 1) Martin Luther King Jr. Blvd./Abbott Rd., 2) Arlington and Atlantic Ave., 3) El Segundo and State St., 4) Carlin and Bullis Rd., 5) Alameda St. and Industry Way, 6) Alameda St. and Lynwood Rd., 7) Martin Luther King Blvd/ Norton Ave., 8) Martin Luther King Blvd/Bullis Rd., 9) Martin Luther King Blvd/Ernestine St., 10) Martin Luther King Blvd and California, 11) State Street and Fernwood. (Phase 1)	Lynwood	City of Lynwood/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0097	Traffic Signal Improvements	Provide traffic signal upgrades at the following locations: 1) Long Beach Blvd/Carlin, 2) Long Beach Blvd/El Segundo, 3) Long Beach Blvd and Sanborn, 4) Long Beach Blvd./Euclid, 5) Long Beach Blvd/Imperial Hwy, 6) Atlantic Ave/Cortland, 7) Atlantic Ave./Abbott Rd, 8) Alameda/Deputy Blaire. (Phase 2)	Lynwood	City of Lynwood/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0099	Traffic Signal Synchronization Projects	Various arterials within the City of Maywood	Maywood	City of Maywood/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0100	Traffic Signal Upgrade Projects	Upgrade traffic signal equipment at various locations within the City of Maywood	Maywood	City of Maywood/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0101	Video Camera installation	Video Camera installation at all Signalized intersections within the City of Maywood	Maywood	City of Maywood/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS

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Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0112	Signal Coordination/ITS Projects	Implement signal coordination and ITS projects at various locations within the City of Signal Hill.	Signal Hill	City of Signal Hill/COG, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0116	Traffic Signal Operational Upgrade	Upgrade the traffic signal at Willow Street & Temple Avenue	Signal Hill	City of Signal Hill/COG	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0166	LB-ELA Corridor Vulnerable Road User Connected Vehicle Infrastructure Deployment	Design and Implementation of Connected Vehicle Infrastructure to improve vulnerable road user safety within the LB-ELA Corridor. This would allow units in vehicles to communicate with units built into transportation infrastructure. Additional technology applications would allow vehicles to communicate with other vehicles, data networks, or pedestrians. The main purpose of this technology is to share information related to items such as safety warnings, roadway hazards, routing information, truck route restrictions, and pedestrian safety zones.	Multiple Jurisdictions	Metro	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0167	I-710 Arterial Signal Performance Measurement	Deploy arterial signal performance measures at all signalized intersection within the LB-ELA Corridor to allow for the optimization of traffic signal operation to improve arterial corridor mobility.	Study Area Wide	Metro, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0215	I-710 Arterial Traffic Signal Control Communication Upgrades	Design and implement upgraded arterial traffic signal control interconnect and central traffic management communications to elevate subregional traffic system management and operations.	Multiple Jurisdictions	Metro, SPP Survey	Arterial Roadway	Signal Coordination / TSM / ITS
LB-ELA_0202	Traffic Calming	Implement Traffic Calming Features within the LB-ELA Corridor to slow traffic on local streets or near schools. Collaborate with local jurisdictions (Cities, unincorporated areas of Los Angeles County) to design, construct, and implement traffic calming features in areas that experience frequent speed violations and/or high levels of accident rates. Based on available funding, provide financial support in order to help leverage local funds for project construction and implementation. Traffic calming features could include: <ul style="list-style-type: none"> - Speed limit reductions, signage, variable speed signs, and enforcement devices - Speed bumps - Truck restrictions (trucks over a certain weight) on non-designated truck routes, including signage and geofencing alerts - Roundabouts - Trees, vegetation, landscaping features to help direct and slow traffic - Bulb outs - Stop signs, traffic signals, striping, raised decorative pavement, and other traffic controls - Road diets - Speed enforcement cameras - Enhanced use of signage, striping, flashing crosswalks, other pedestrian warning devices in school zones 	Study Area Wide	SPP Survey, SPP Mapping, Community Leadership Committee (CLC)	Arterial Roadway	Traffic Calming
LB-ELA_0012	Garfield Widening	Garfield Avenue Improvements, from 70th Street to Howery Street. Widen Street 1 to 4 Feet for 2 Miles to Accommodate a Third Lane in Each Direction during Peak Hours. Add Medians, Narrow Existing Medians, Add Second Left Turn Lane in All Directions at Two Intersections, (Rosecrans Ave. And Alondra Blvd.), Resurface Street, Concrete Intersections, and add Traffic Signal Improvements, Street Lights, Underground Utilities, Green Street Improvements, and Stormwater and Watershed BMPs.	Paramount	SCAG RTP, PIPO	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0040		Route 1, In the cities of Long Beach and Los Angeles, install stormwater treatment Best Management Practices (BMPs), including bioswales and Design Pollution Prevention Infiltration Areas (DPPIAs).	Wilmington/Long Beach	SHOPP	Arterial Roadway	General Local / Regional Roadway

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Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0041		Route 1. In Long Beach, from Temple Avenue to De Forest Avenue. Upgrade traffic signals, crosswalks, curb ramps, sidewalks, driveways, and Accessible Pedestrian Signals (APS) to Americans with Disabilities Act (ADA) standards.	Long Beach	SHOPP	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0044		Route 1, MP 7.0-7.2. In Long Beach, at Los Angeles River Bridge No. 53-0341 and De Forest Avenue Undercrossing No. 53-1047. Seismic retrofit, upgrade bridge rails, and upgrade facilities to Americans with Disabilities Act (ADA) standards.	Long Beach	SHOPP	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0063	Gage Ave. Bridge	Rehabilitate/replace Gage Avenue Bridge over the LA River	Bell	City of Bell/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0065	Slauson Ave. Bridge	Rehabilitate/replace Slauson Avenue Bridge over the LA River	Bell	City of Bell/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0067	Florence Ave. Bridges	Replace Florence Ave. Bridges over LA River & I-710	Bell	City of Bell/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0068	Systematic Safety Analysis Report Program (SSARP) Improvements	Targeted safety improvements to 38 intersections, citywide, in the City of Bell Gardens. Includes installing signs; changing pavement markings; adding protected turn phasing; installing channelization; parking restrictions; and signal timing adjustments.	City of Bell Gardens/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway	Same intersections as LB-ELA_0069
LB-ELA_0073	Telegraph Road Improvements	Improve Telegraph Road between Marianna Ave. and Atlantic Blvd (safety features and pedestrian circulation)	Commerce	City of Commerce/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0078	Randolph Street Gap Closure	Provide arterial roadway bridge over LA River and I-710 to connect Randolph Street west and east of the LA River/I-710	Commerce	City of Commerce/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0079	Florence Avenue Bridge Rehabilitation	Rehabilitate arterial bridge over the Rio Hondo River Channel	Downey	City of Downey/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0080	Florence Ave. & Paramount Blvd. Intersection Improvement	Improve the intersection at Florence Ave. & Paramount Blvd. by adding turn lanes to reduce congestion and enhance safety.	Downey	City of Downey/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0085	Intersection Improvements (Huntington Park)	Provide intersection improvements at various locations within the City of Huntington Park	Huntington Park	City of Huntington Park/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0088	Protected Left Turns at Signals	Implement protected left-turns along major arterials at various locations with the City of Long Beach.	Long Beach	City of Long Beach/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0098	City Re-Striping Projects	Replace striping on major arterials (lane striping, school zone striping) at various locations within the City of Lynwood.	Lynwood	City of Lynwood/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0104	Rosecrans Ave. Bridge	Replace/rehabilitate Rosecrans Ave. Bridge over the LA River	Paramount	City of Paramount/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0105	Garfield Avenue Improvement Project	Improve Garfield Avenue from South City Limit to North City Limit [City of Paramount]	Paramount	City of Paramount/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0107	Alondra Blvd. Bridges	Replace Alondra Blvd. Bridges over the LA River and I-710	Paramount	City of Paramount/COG	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0108	Garfield Ave. Intersection Improvements	Provide dual left turn lanes on all approaches for the following intersections along Garfield Avenue: 1) Rosecrans, 2) Somerset, and 3) Alondra.	Paramount	City of Paramount/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0109	Alondra Blvd. Intersection Improvements	Provide dual left turn lanes on all approaches for the following intersections along Alondra Blvd: 1) Garfield, 2) Paramount, and 3) Downey.	Paramount	City of Paramount/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0110	Rosecrans Intersection Improvements	Provide dual left turn lanes on all approaches for the following intersections along Rosecrans Ave: 1) Garfield, 2) Paramount, and 3) Downey.	Paramount	City of Paramount/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0113	Orange Avenue Improvement Project	Improve Orange Avenue, including the addition of Bike Lanes, between 25 th Street and Spring Street	Signal Hill	City of Signal Hill/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0115	California Ave. Improvement Project	Improve California Avenue, including the addition of Bike Lanes, between Willow Street and Spring Street	Signal Hill	City of Signal Hill/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0119	Wright Road Improvement Project	Improve Wright Road, including the addition of Bike Lanes, between Imperial Hwy. and Atlantic Ave.	South Gate	City of South Gate/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0120	Safety-Related Road Improvement Projects	Within the East Rancho Dominguez (unincorporated LA County), implement safety-related improvement projects along the following roadways: Compton Boulevard, Atlantic Avenue, Rosecrans Avenue, and Alondra Boulevard	East Rancho Dominguez	East Rancho Domingo (County of LA)/COG, SPP Survey	Arterial Roadway	General Local / Regional Roadway
LB-ELA_0205	Arterial/General Roadway Improvements Program	Implement local roadway projects within the local jurisdictions and communities (cities, unincorporated areas of Los Angeles County) which comprise the LB-ELA Corridor. The objective of these projects will be to improve mobility, safety, and the travel experience for all users of the roadways (pedestrians, bicyclists, transit, and vehicles). This program would help fund projects such as: - Intersection improvements	Study Area Wide	Metro, Gateway Cities COG, SPP Survey, SPP Mapping	Arterial Roadway	General Local / Regional Roadway

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		<ul style="list-style-type: none"> - Bridge replacements - Street widenings and enhancements including lighting, safety features, landscaped medians, and parkways - Complete Streets projects and features, including active transportation (bicycle, pedestrian), and transit stop improvements - Traffic controls (traffic signals, stop signs), signal coordination, and Intelligent Transportation Systems 				
LB-ELA_0221	Atlantic Blvd. widening Over I-5 at Mixmaster Intersection	Would widen Atlantic Avenue bridge structure over I-5 at intersection of Telegraph Road, Eastern Avenue, and Atlantic Boulevard in the City of Commerce. Would help relieve traffic congestion and provide a safer roadway for all modes of transportation.	City of Commerce	Arterial Roadway	General Local / Regional Roadway	
LB-ELA_0133	LB-ELA Corridor Community Health Benefit Program	<p>Under this program, funding would be made available to implement air quality projects to reduce exposure to air pollution as well as health education and screening programs in areas adversely affected by existing and proposed transportation infrastructure projects. The LB-ELA Community Health Benefit Program would serve the communities within the LB-ELA Corridor Study Area. This program would provide subsidy funding to implement projects and outreach activities to improve air quality and public health, including but not limited to:</p> <ul style="list-style-type: none"> - Air Quality Projects for Schools and Community Facilities: air filtration, HVAC upgrades, replacement/sealing of windows and doors, vegetation barriers or buffer landscaping. - Health Education and Screening: community health screening and diagnosis, health education, training for community health workers, outreach programs. 	Study Area Wide	I-710 Motion 5.1/5.2 Early Action Concept, SPP Survey, CA-7	Community Programs	Air Quality / Community Health
LB-ELA_0191	Zero Emission Infrastructure for Autos	Work with local jurisdictions (Cities, County of Los Angeles), public agencies, and private-public partners to develop and site additional charging stations for zero emissions vehicles within the LB-ELA Corridor. Provide grant writing assistance in order to help secure funding. In addition, provide technical support to share best practices such as: identification of incentives and/or policy requirements for new development.	Study Area Wide	SPP Survey, SPP Mapping, CA-7	Community Programs	Air Quality / Community Health
LB-ELA_0192	Bus Electrification Projects	Seek incentives to accelerate the deployment of zero emissions vehicles within the LB-ELA Corridor. Projects could include bus electrification (public transit buses, school buses) as well as zero emissions charging infrastructure. Provide technical and grant writing assistance to define and develop potential projects.	Study Area Wide	Metro, SPP Survey, SPP Mapping, CA-7	Community Programs	Air Quality / Community Health
LB-ELA_0218	Air Quality Monitoring Stations	Add four, new air quality monitoring stations within the LB-ELA Study Area. Sites to be identified in cooperation with the South Coast Air Quality Management District.	Multiple Jurisdictions	I-710 Motion 5.1/5.2 Early Action Concept	Community Programs	Air Quality / Community Health
LB-ELA_0134	LB-ELA Corridor Energy Reduction / Greenhouse Gas Emissions Reduction Program	Under the Energy Reduction / Greenhouse Gas Reduction (GHG) Program, funding would be made available to implement energy reduction as well as greenhouse gas reduction projects in areas impacted by transportation projects within the LB-ELA Corridor. This program would be an important element of any major transportation initiative that takes place within the LB-ELA Corridor. The program would provide subsidy funding to implement projects and educational activities targeted to reducing greenhouse gas emissions. Examples of these projects include: renewable energy projects, solar-power generation, energy efficient lighting, and tree planting, among others.	Study Area Wide	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping	Community Programs	Environment
LB-ELA_0187	LB-ELA Corridor "Urban Greening" Initiative	Under this initiative, proposed projects implemented through the LB-ELA Corridor Investment Plan must consider context sensitive solutions as part of the project design as well as "urban greening" elements that foster environmental resilience. These "urban greening" elements may include items such as: provision of green space/greenbelts; parklets; tree planting; community gardens and community farms; drought tolerant planting; habitat restoration and connectivity; stormwater capture/flood diversion/water management projects; brownfield remediation, natural trail restoration, and green infrastructure, among others. Through the LB-ELA Urban Greening Initiative, project proponents may also partner with other localities, non-profit organizations, or communities in order to plan, design, and implement "green" projects that demonstrate that they provide publicly	Study Area Wide	SPP Survey, SPP Mapping, CA-7, Equity Working Group	Community Programs	Environment

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		accessible open-space and ecosystem benefits such as urban heat island reduction within the LB-ELA Corridor.				
LB-ELA_0190	Public Art / Aesthetics	Policy initiative that would require that a percentage of transportation construction funds for major public work projects be earmarked for public art, landscaping, urban design elements, and other aesthetic features for the projects.	Study Area Wide	SPP Survey, SPP Mapping	Community Programs	Environment
LB-ELA_0009	West Santa Ana Branch Transit-Oriented Development Strategic Implementation Plan and Program (TOD SIP)	The TOD SIP provides an overarching vision and strategic guidance for local West Santa Ana Branch (WSAB) jurisdictions to use as a resource as they develop and implement their own plans, policies and economic development and mobility strategies in the 12 WSAB station areas along the alignment. Additionally, in 2019, the Metro Board approved a \$1M implementation program to fund WSAB jurisdictions to implement TOD SIP recommendations.	Multiple Jurisdictions	Metro LRTP	Community Programs	Housing Stabilization / Land Use
LB-ELA_0135	Housing Stabilization Policies	Applying an integrated approach, work with cities, County of Los Angeles, and public agencies to propose and pass community stabilization policies to support disadvantaged communities within the LB-ELA Corridor, improve their resilience, and address the social determinants of health. Provide grant writing assistance to secure needed funding. Housing stabilization policies and incentives include measures such as: <ul style="list-style-type: none"> - Mandates for process improvement: Engaging the community/forming partnerships with Community Based Organizations; - Community benefits: establish a framework/menu/equitable development scorecard for new development projects; - Develop community land trusts/land banks: for new housing and/or to support naturally occurring affordable housing; - Local wealth creation: encourage production of local for sale affordable housing, down payment assistance programs, homeowner maintenance assistance programs; - Inclusionary housing policies with or without option of in lieu fees; - Housing Trust Fund to support and increase funding for affordable housing production; - Density bonus programs to incentivize affordable and mixed income housing production; - Affordable accessory dwelling unit (ADU) programs and ADU amnesty programs; - Policies to reduce housing costs, such as parking reduction/unbundling, innovative construction techniques, fee waivers, permit streamlining; - Anti-displacement programs for tenants: tenant rights programs including anti-harassment policies/ just cause eviction policies, legal assistance for tenants, no net loss housing policies for new development, limits on residential demolition & conversion, tenant right-to-return policies, local resident preference programs for new housing; - Rent stabilization policies; - Low-income rental assistance programs, low interest loan programs for maintenance and improvement in rent stabilized units; - Anti-displacement programs for homeowners: tax relief/loans/grants for maintenance/foreclosure assistance; - Basic Income Program 	Study Area Wide	COG Ad Hoc Committee, SPP Survey, SPP Mapping	Community Programs	Housing Stabilization / Land Use
LB-ELA_0193	Transit Oriented Communities /Land Use	Work with the local jurisdictions (Cities, County of Los Angeles) to apply best practices and design guidelines to encourage transit-oriented development near rail stations and heavily utilized bus routes within the LB-ELA Corridor. Provide technical resources such as grant writing assistance and technical assistance for community development and land use planning. Assist local jurisdictions in coordination with property owners and developers to ensure safe construction and strengthen connections to transit.	Study Area Wide	Metro, SPP Mapping	Community Programs	Housing Stabilization / Land Use

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0194	Homeless Programs	Support homeless initiatives within the LB-ELA Corridor and efforts and recommendations that have emerged from Metro’s Homeless Task Force, Reimagining Public Safety Initiatives, and other County initiatives and studies to address homelessness in and around the transit system including provisions to: enhance the customer experience; maintain a safe and secure system; and connect homeless persons in the transit system to services and resources.	Study Area Wide	SPP Survey, SPP Mapping	Community Programs	Housing Stabilization / Land Use
LB-ELA_0186	Economic Stabilization Policies	Work with Cities, County of Los Angeles, and public agencies to propose and pass community stabilization policies to support disadvantaged communities within the LB-ELA Corridor. Provide grant writing assistance to secure needed funding. Economic stabilization policies and incentives include measures such as: <ul style="list-style-type: none"> - Mandates for process improvement: Engaging the community/forming partnerships with Community Based Organizations; - Community financial empowerment programs: local hire agreements, workforce education & development, credit improvement programs; - Locally owned business support – small business interruption fund and loan funds during construction, guide for business support services, zoning to encourage small businesses, lease to own programs for businesses and housing; - Identify, protect and encourage legacy and culturally significant businesses, and historical and cultural landmarks, mandate inclusion of arts and culture spaces in new development 	Study Area Wide	COG Ad Hoc Committee	Community Programs	Job Creation / Work Opportunities
LB-ELA_0195	Targeted Hire Programs	Support the development of targeted and local hire programs to increase the share of public dollars that is devoted to creation of local jobs for community residents within the LB-ELA Study Area. Include measures such as the establishment of Project Labor Agreements (PLAs) that specify local and targeted hire goals for specific construction projects as well as first source hire requirements. Collaborate with local jurisdictions and public agencies to align local and targeted hire policies, thresholds, and requirements.	Study Area Wide	I-710 Motion 5.1/5.2 Early Action Concept, SPP Survey, CA-7	Community Programs	Job Creation / Work Opportunities
LB-ELA_0196	Employment/Recruitment Initiatives	Partner with public agencies, large employers, and local businesses to conduct recruitment drives at locations within the LB-ELA Corridor (both virtual and in person.) This initiative would also include job fairs and workshops at community facilities and community colleges to provide information to local residents regarding work opportunities as well as networking resources. Conduct promotional campaigns to actively publicize these events within the LB-ELA Corridor communities.	Study Area Wide	SPP Survey	Community Programs	Job Creation / Work Opportunities
LB-ELA_0197	Vocational Educational Programs	Partner with public agencies, private-sector employers, community colleges, labor organizations and non-profit organizations to expand vocational and educational programs for community residents within the LB-ELA Corridor. Examples could include training for mechanics who work for small businesses that service zero emissions vehicles. These programs would provide opportunities to establish a career pathway to work in key economic sectors and move up through the ranks by focusing on workforce development and skills training.	Study Area Wide	SPP Survey	Community Programs	Job Creation / Work Opportunities
LB-ELA_0004	Long Beach-East Los Angeles Corridor Clean Truck Program	In January 2021, the Metro Board approved the 2021 Goods Movement Strategic Plan, which included a Countywide Clean Truck Initiative, with the 710 South Clean Truck Program identified as a goods movement strategic priority. At its October 2021 meeting, the Metro Board acted to recommit \$50 million from Measure R I-710 South Corridor funds as seed funding for the 710 South Clean Truck Program, which has been subsequently renamed the LB-ELA Zero Emissions Truck Program. The objective of this program is to turn over diesel trucks in favor of zero emissions trucks in the LB-ELA Corridor. The program would contribute subsidy funding to deploy a number of zero emissions trucks on I-710 as well as seed funding to develop electric charging/refueling stations for zero emissions trucks.	Study Area Wide	Metro LRTP, SPP Survey, SPP Mapping, CA-7	Goods Movement	Truck Programs/ITS
LB-ELA_0023	Clean Truck Infrastructure	Install charging infrastructure for zero emissions trucks.	Multiple Jurisdictions	Metro 2028 Mobility Concept Plan, SPP Survey, SPP Mapping	Goods Movement	Truck Programs/ITS

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0184	Empty Container Management	Provide a mix of incentives/fee penalties to encourage shippers/marine terminals to clear empty containers from docks/near dock facilities at the Ports to reduce congestion and unnecessary truck trip movements. Extend use of off-peak hours for empty returns.	Ports	Ports	Goods Movement	Truck Programs/ITS
LB-ELA_0185	Freight Advanced Traveler Information Systems	Application of advanced technologies to manage drayage truck movements to and from the Ports. The system integrates real-time roadway traffic data, vessel/container tracking, real-time container terminal visit times, and GPS-based information to optimize the sequencing of container delivery and pick-up. The purpose is to improve cargo handling and efficiencies and reduce congestion near intermodal yards and Port facilities.	Multiple Jurisdictions	Ports, SPP Survey	Goods Movement	Truck Programs/ITS
LB-ELA_0024	Pier 400 On Dock Rail Modernization	On-dock railyard expansion to accommodate electric operated rail-mounted gantry cranes.	Port of LA	Metro 2028 Mobility Concept Plan	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0025	Terminal Island Transfer Facility Modernization	On-dock railyard expansion to accommodate electric operated rail-mounted gantry cranes.	Port of LA	Metro 2028 Mobility Concept Plan	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0026	West Basin Container Terminal Railyard Modernization	On-dock railyard expansion to accommodate electric operated rail-mounted gantry cranes.	Port of LA	Metro 2028 Mobility Concept Plan	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0124	Port of Los Angeles National Multimodal Freight Network Improvement Program: Rail System Improvement Projects	Additional rail tracks in POLA to improve overall rail operations, including supporting on-dock railyards	Port of LA	Port of Los Angeles/COG, SPP Survey	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0151	Goods Movement Freight Rail Study	Conduct an assessment to evaluate options for deriving greater utilization of the Alameda Corridor as a potential means for reducing truck trips within the Southern California subregion. This assessment would include options such as: opportunities to increase on-dock freight rail mode share; implementation of short-haul, freight rail shuttle service to new inland rail facilities; and increased use/improved operational efficiencies of existing near dock and off dock intermodal facilities. This evaluation would take into account updated cargo forecasts, economic factors and projections, current trends associated with the goods movement logistics chain including transload truck trips, and railroad and intermodal capacity constraints in the Southern California region. The Goods Movement Freight Rail Study would assess options from a systemwide perspective and would include factors such as changes in truck trip travel patterns, land use implications, and the potential for environmental impacts as well as institutional constraints.	Barstow	SPP Survey	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0217	Freight Rail Electrification Pilot Project	Work with the Union Pacific (UP) and BNSF railroads to develop and test battery electric locomotives for operation on the Pacific Harbor Line and in the Alameda Corridor with an ultimate goal of advancing a zero-emissions technology capable of entering commercial, revenue service operation.	Multiple Jurisdictions	Task Force, Equity Working Group	Goods Movement	Freight Rail / Goods Movement TDM
LB-ELA_0011	SR-47 Navy Way Interchange	SR 47/Navy Way Interchange: Construction of Interchange At SR-47 / Navy Way, between SR-47 Vincent Thomas Bridge and Pier S Avenue Interchange, to eliminate traffic signal and movement conflicts. This Project was a S. Cal Trade Corridor Tier II TCIF Project as submitted to the CTC In 2008. This project would remove the last signal on SR 47 between Desmond and V. Thomas Bridges; NHS Intermodal Connector Route	Port of Los Angeles	SCAG RTP, PIPO, Ports	Goods Movement	Ports
LB-ELA_0021	Alameda Corridor Terminus Enhancements	New Cerritos channel rail bridge and supporting connections throughout Port of LA.	Port of Los Angeles	Metro 2028 Mobility Concept Plan	Goods Movement	Ports

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0022	Terminal Way Grade Separation	New grade separation to replace at-grade crossing to improve freight traffic flow.	Port of Los Angeles	Metro 2028 Mobility Concept Plan	Goods Movement	Ports
LB-ELA_0121	Pier D Street Realignment	Realign Pier D Street, from Middle Harbor Exit gate to Pico Avenue. Currently Pier D Street has sight distance issues, inadequate curve radii, and drainage/flooding issues at the low point. The Pier D Realignment project will provide redundancy through Pier D thereby improving safety and traffic flows. The scope of the project is to widen & reconstruct Pier D Street between the Middle Harbor Exit Gate and Pico Avenue and to reconfigure West Broadway. Additional scope items includes construction of a new pump station, retaining walls, utility upgrades, striping, signage and traffic signal work.	Port of Long Beach	Port of Long Beach/COG, SPP Mapping	Goods Movement	Ports
LB-ELA_0122	Harbor Scenic Drive Roadway & Infrastructure Improvements	Improve Harbor Scenic Drive, from Harbor Plaza to Ocean Boulevard. The project would: increase the roadway pavement structural section to replace the existing aged pavement; provide horizontal and vertical alignments improvements for enhanced safety; improve striping, traffic signage and way-finding signage; improve highway lighting; enhance drainage facilities (including the introduction of permanent water quality enhancements such as bio-swales and catch basin inlet/pipe screens); revamp the parkway and median landscaping and irrigation; and provide utility improvements and enhancements.	Port of Long Beach	Port of Long Beach/COG, SPP Survey	Goods Movement	Ports
LB-ELA_0123	Pico Avenue Street Improvement	Improve Pico Avenue, between Pier D Street and Pier E Street. This roadway improvement project would: widen a short segment of roadway; improve truck congestion and truck safety; reconstruct the pavement, improve the existing surface drainage and upgrade the storm drain inlets; upsize the sewer line; provide continuous sidewalks with ADA accessible features; upgrade street lighting; and extend landscaping and hardscape features.	Port of Long Beach	Port of Long Beach/COG, SPP Survey	Goods Movement	Ports
LB-ELA_0131	Port of Los Angeles National Multimodal Freight Network (NMFN) Improvement Program: Maritime Support Facility Access/Terminal Island Rail System Grade Separation	The project consists of constructing a four-lane, rail-roadway grade separation that eliminates a significant truck access impediment to an important container terminal support facility located on Terminal Island, at the centroid of the Ports of Los Angeles-Long Beach (POLA-POLB).	Port of Los Angeles	PIPO (Port of Los Angeles)	Goods Movement	Ports
LB-ELA_0132	Pier 300 Wharf Expansion/Vessel Emission Reduction Project	Pier 300 Wharf Expansion/Vessel Emission Reduction Project. This project constructs 1,250 lineal feet of container terminal wharf and supporting backland for Pier 300. It includes electrical infrastructure to operate ship-to-shore cranes and shore-side power to operate all necessary vessel systems, which will reduce about 80 percent of emissions while at berth.	Port of Los Angeles	PIPO (Port of Los Angeles)	Goods Movement	Ports
LB-ELA_0001	West Santa Ana Branch Transit Corridor (LRT)	The Project consists of 12 stations and is a 19-mile light rail transit corridor that will connect southeast LA County to downtown Los Angeles, serving the cities and communities of Artesia, Cerritos, Bellflower, Paramount, Downey, South Gate, Cudahy, Bell, Huntington Park, Vernon, unincorporated Florence-Graham community of LA County and downtown Los Angeles. Complete 4.5-mile section between Slauson A Line and Union Station.	Multiple Jurisdictions	Metro LRTP, SPP Survey, SPP Mapping	Transit	High Capacity Transit (Rail & BRT)
LB-ELA_0002	C Line (Green) Eastern Extension (Norwalk) (LRT)	Extends the C Line (Green) 2.8 miles from Norwalk to the Norwalk/Santa Fe Springs Metrolink Station.	Norwalk	Metro LRTP	Transit	High Capacity Transit (Rail & BRT)
LB-ELA_0019	Atlantic Bus Only Lane and Transit Signal Prioritization (Next Gen Improvements)	BRT project along Atlantic to provide improved speed, reliability, and frequency.	Multiple Jurisdictions	Metro 2028 Mobility Concept Plan, SPP Survey, SPP Mapping	Transit	High Capacity Transit (Rail & BRT)
LB-ELA_0219	Metrolink Regional Rail Line between Union Station and Long Beach	Construct a new Metrolink regional rail line between Union Station and downtown Long Beach. Trains would be powered using electrical multiple unit (EMU) traction motors, which are anticipated to be required by the California Air Resources Board after 2030. Specific EMU technology has yet to be determined, but could be powered by overhead catenary, hydrogen fuel cell, or catenary/battery electric. Trains would operate along the existing SCRRA Metrolink line between Los Angeles and Commerce and then transition into Union Pacific (UP) railroad right of way (potentially along the San	Multiple Jurisdictions	Task Force (SCRRA)	Transit	High Capacity Transit (Rail & BRT)

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		Pedro Subdivision Corridor) for the segment between Commerce and Lakewood. However, sections of a second track would likely need to be constructed in this middle section in order to operate up to four trains per hour in each direction in the peak period. In addition, substantial portions of the southern section of the alignment, between Lakewood and downtown Long Beach, would require new right-of way to provide needed trackage to connect to the downtown Long Beach area. New stations would be constructed and spaced every 1 to 3 miles depending upon the location. It is anticipated that these Metrolink trains would interline through Link US (at Union Station) with the Antelope Valley Line to the north.				
LB-ELA_0160	Line A (Blue Line) Transit Priority/Signal Synchronization	Enhanced signal prioritization/synchronization so that the A Line (Blue Line) has higher priority in areas where the LRT trains operate in mixed flow traffic	Multiple Jurisdictions	SPP Mapping, SPP Survey	Transit	Rail Line / Station Improvements
LB-ELA_0171	Commuter Rail Maintenance, Repair, and Safety Projects	Implement planned repair, maintenance, and safety projects to Metro-owned railroad infrastructure along the Los Angeles/Orange County commuter rail line within the LB-ELA Corridor study area.	Multiple Jurisdictions	Annual Commuter Rail State of Good Repair (SOGR) Program	Transit	Rail Line / Station Improvements
LB-ELA_0172	Commerce Metrolink Station Improvements	Improve train platforms, shift tracks, install pedestrian barriers and pedestrian crossing safety features, extend and widen sidewalks and walkways, add lighting, install new ADA accessibility features, replace equipment, provide bike path striping, add wayfinding signage, and provide new landscaping.	Commerce	LA County Metrolink Station Assessment & Improvement Plan	Transit	Rail Line / Station Improvements
LB-ELA_0173	Grade Separation(s) of the A Line [Blue Line] at Washington Street	Provide grade separation of the A Line [Blue Line] at the Washington St./Flower St. junction and at Washington Street.	Los Angeles	Metro, SPP Survey, SPP Mapping	Transit	Rail Line / Station Improvements
LB-ELA_0174	New Metrolink Station at planned Commerce/Citadel Station	Construct a new Metrolink Station on the Los Angeles – Riverside Metrolink Commuter Rail Line at the planned Eastside Transit Corridor station at Commerce/Citadel.	Commerce	Metro	Transit	Rail Line / Station Improvements
LB-ELA_0175	Install Quad Safety Gates at all A Line [Blue Line] Crossings	Install Quad Safety Gates at all A Line [Blue Line] Crossings for safety and increased speed/safety zones	Multiple Jurisdictions	Metro	Transit	Rail Line / Station Improvements
LB-ELA_0176	Install Supervisory Control and Data Acquisition System for A Line [Blue Line]	Install Supervisory Control and Data Acquisition System [SCADA] along the A Line {Blue Line} in the downtown area of Long Beach. This technology would allow Metro to better operate and manage the rail transit line to improve train reliability	Long Beach	Metro	Transit	Rail Line / Station Improvements
LB-ELA_0177	Add Second Elevator to Firestone and Slauson A Line [Blue Line] Stations	Add second elevator to Firestone and Slauson A Line [Blue Line] Stations for improved access and reliability	Florence-Graham	Metro	Transit	Rail Line / Station Improvements
LB-ELA_0016	Connecting C Line (Green) and Metrolink Norwalk Station	New express shuttle service between C Line Norwalk Station and Metrolink Norwalk Station to close existing transit gap. Near term solution until C Line is extended eastward.	Norwalk	Metro 2028 Mobility Concept Plan	Transit	Bus Transit
LB-ELA_0130	Long Beach Transit (LBT) Solar Charging Electrification Project	The project would convert the current bus parking area, at the agency’s main operating base, into a facility for charging Battery Electric Buses (BEBs) through the erection of solar-powered parking canopies, to enable Long Beach Transit to transition to 100% emission bus fleet by 2030.	Long Beach	PIPO (Long Beach Transit), SPP Mapping	Transit	Bus Transit

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0140	Metro Micro Transit Zone(s)	Implementation of new Metro on-demand, flexible transit service for the northern section of the I-710 Study Area between Lynwood and Commerce. - Rides can be booked online, by app, or by phone. Rides are prescheduled, same day/multiple days. - Uses small capacity vans (seats 7-10 riders). - Pick-up/drop-off where safe (virtual stops). Targeted maximum wait time is 15 minutes.	Multiple Jurisdictions	COG Ad Hoc Committee, SPP Mapping	Transit	Bus Transit
LB-ELA_0141	Metro Bus Priority Lane Corridor along Line 60 (Long Beach Blvd.)	Improve bus times, speeds, and reliability along Line 60 (Long Beach Blvd.). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0142	Metro Bus Priority Lane Corridor along Line 108 (Slauson)	Improve bus times, speeds, and reliability along Line 108 (Slauson). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0143	Metro Bus Priority Lane Corridor along Line 110 (Gage)	Improve bus times, speeds, and reliability along Line 110 (Gage). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0144	Metro Bus Priority Lane Corridor along Line 111 (Florence)	Improve bus times, speeds, and reliability along Line 111 (Florence). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0145	Metro Bus Priority Lane Corridor along Line 115 (Firestone)	Improve bus times, speeds, and reliability along Line 115 (Firestone). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	South Gate / Downey	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0146	Metro Bus Priority Lane Corridor along Line 260 (Atlantic Blvd.)	Improve bus times, speeds, and reliability along Line 260 (Atlantic Blvd.). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Transit	Bus Transit
LB-ELA_0164	Improved Frequency of Metro Buses in the LB-ELA Study Area	Provide a 50 percent improvement on all Metro fixed bus routes greater than 10 minutes in the AM and PM peak periods. And, provide a 50 percent improvement on all Metro fixed bus routes greater than 15 minutes in the Midday and Evening periods. [For example, a bus route that has as frequency of a bus every 30 minutes would improve to a bus arriving every 15 minutes.]	Study Area Wide	SPP Survey, SPP Mapping, CA-7	Transit	Bus Transit
LB-ELA_0178	Metro Bus Priority Lane Corridor along Line 18 (Whittier Blvd.)	Improve bus times, speeds, and reliability along Line 18 (Whittier Blvd.). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Los Angeles / East LA	SPP Survey	Transit	Bus Transit
LB-ELA_0179	Metro Bus Priority Lane Corridor along Line 66 (Olympic Blvd.)	Improve bus times, speeds, and reliability along Line 66 (Olympic Blvd.). Proposed improvements would include: transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, bus stop and layover improvements.	Los Angeles / East LA	SPP Survey	Transit	Bus Transit
LB-ELA_0077	Bus Stop Improvements	Installation of Bus shelters and benches at Metro and City of Commerce Transit Stop (Various locations within the City of Commerce)	Commerce	City of Commerce/COG, SPP Survey	Transit	Transit Amenities
LB-ELA_0103	Bus Stop Improvements	Installation of Bus shelters and benches at Metro and City of Maywood Transit Stop (Various locations within the City of Maywood)	Maywood	City of Maywood/COG, SPP Survey	Transit	Transit Amenities

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0118	Bus Shelter Upgrades	Upgrade bus shelters at various locations within the City of Signal Hill.	Signal Hill	City of Signal Hill/COG, SPP Survey	Transit	Transit Amenities
LB-ELA_0136	Enhanced Transit Security	Provide enhanced transit security measures and features on Metro trains, buses, and at Metro rail stations including: security devices such as cameras and call buttons, improved incident response, and additional security officers and/or plainclothes staff.	Multiple Jurisdictions	SPP Mapping	Transit	Transit Amenities
LB-ELA_0147	Transit Traveler Information System Application (ITS)	Integrated system and web-based application to provide real-time information to users on optimal transit routes and transit options based on time of day as well as estimated arrival times of buses under real time travel conditions.	Study Area Wide	SPP Survey	Transit	Transit Amenities
LB-ELA_0148	Transit Fare Discount Program	Expand Metro's program to provide increased transit fare discounts for low-income riders, students, and seniors. Target low income or disadvantaged communities within the LB-ELA Corridor Study Area.	Study Area Wide	SPP Survey	Transit	Transit Amenities
LB-ELA_0149	Increased Security Features at Metro's Existing and Planned Light Rail Stations	Lighting, security cameras, improved line of sight, incident/emergency response plans, and other safety features at Metro stations/parking structures.	Multiple Jurisdictions	SPP Survey	Transit	Transit Amenities
LB-ELA_0152	Transit Marketing and Education Program	Expansion of Metro's collaborative effort with Metrolink, Long Beach Transit, and city municipal bus lines to promote transit and alternative modes of transportation to the single occupant vehicle. Include features such as "free transit" day and transit passes to employees or students to encourage transit use.	Multiple Jurisdictions	SPP Survey	Transit	Transit Amenities
LB-ELA_0161	Transit Ambassador Program	Enhance Metro's Transit Ambassador Program within the LB-ELA Corridor to bring non-law enforcement representatives to improve the customer experience, reinforce public safety, and increase ridership on the transit system.	Study Area Wide	SPP Mapping	Transit	Transit Amenities
LB-ELA_0168	Compton Transit Management Operations Center Enhancements	Project improvements would include: beautification, art, monuments, safety, increased bike storage, bike parking, walkways, and bike paths (Phases 1 -5). Location: Compton Transit Management Operations Center: 275 N. Willowbrook Ave., Compton.	Compton	Task Force	Transit	Transit Amenities
LB-ELA_0169	Southeast LA Transit Improvement Program	Pending stakeholder input and local jurisdiction approval, this project could include a "cloud-based" Countywide Signal Priority upgrade, 100 bus stop shelters at existing bus stops with over 50 daily boardings but without an existing shelter, 100-solar powered real-time arrival displays, 100 bus stop solar light upgrades for stops without shelters that have lighting, terminal/layover expansion improvements at the Norwalk, Artesia, and Compton Stations, and 100 Zero-Emissions Bus charging masts.	Multiple Jurisdictions	PIPO (Southeast LA), SPP Survey	Transit	Transit Amenities
LB-ELA_0189	Transit System Cleanliness/Maintenance	Strengthen policies committing Metro to regular cleaning and maintenance activities on all transit vehicles and at bus and rail stations within the LB-ELA Corridor. These activities consist of cleaning and disinfection of high touchpoint surfaces, graffiti removal, cleanup of spills and biohazards, and trash removal. Maintain station landscaping. Provide high-efficiency air filters on bus and rail transit vehicles. Ensure that the agency dedicates sufficient resources for this effort.	Study Area Wide	SPP Survey, SPP Mapping	Transit	Transit Amenities
LB-ELA_0203	Bus Stop Improvements	Collaborate with the local jurisdictions (cities, unincorporated areas of Los Angeles County) to implement bus stop improvements within the LB-ELA Corridor. Bus stop improvements would include items such as: <ul style="list-style-type: none"> - Lighting - Security Features - Benches - Shade and shelters 	Study Area Wide	SPP Survey, SPP Mapping, CA-7, Community Leadership Committee (CLC)	Transit	Transit Amenities

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
		<ul style="list-style-type: none"> - Drinking Fountains - Solar-powered arrival displays - Trashcans - Landscaping - Signage - Crosswalks - Improved ADA accessibility, including repositioning of utility boxes on the sidewalk Provide financial support in order to help leverage local funds for project implementation. Funds would be made available based on criteria such as: project need, project readiness, and project benefits relative to costs, among other factors.				
LB-ELA_0028	I-710/Willow Interchange Improvements	Reconfiguration of I-710/Willow Interchange to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Long Beach	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping, City of Long Beach/COG	Freeway	Freeway Improvements
LB-ELA_0029	I-710/Del Amo Interchange Improvements	Reconfiguration of I-710/Del Amo Interchange to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Long Beach/Carson	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping, City of Long Beach/COG	Freeway	Freeway Improvements
LB-ELA_0030	I-710/Long Beach Blvd. Interchange Improvements	Upgrade of I-710/Long Beach Blvd. Interchange to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Long Beach	I-710 Motion 5.1/5.2 Early Action Concept	Freeway	Freeway Improvements
LB-ELA_0031	I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors	Reconfiguration of I-710/Alondra Interchange to improve operations, and safety for traffic entering and exiting the freeway. Improve, relocate SB I-710 to SR-91 Connectors to reduce weaving movements. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Compton	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping	Freeway	Freeway Improvements
LB-ELA_0032	I-710/Imperial Interchange Improvements	Reconfiguration of I-710/Imperial Interchange to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Downey/Lynwood	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping	Freeway	Freeway Improvements
LB-ELA_0033	I-710/Firestone Interchange Improvements	Upgrade of I-710/Firestone Blvd. Interchange to improve operations and safety for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	South Gate	I-710 Motion 5.1/5.2 Early Action Concept, SPP Mapping	Freeway	Freeway Improvements
LB-ELA_0034	I-710/Florence Interchange Improvements	Reconfiguration of I-710/Florence Interchange to improve operations, safety, and sight distance for traffic entering and exiting the freeway. Improve traffic controls to address safety concerns of bicyclists, pedestrians at ramp termini. Upgrade bridge structures to allow space for bicycle/pedestrian connections across I-710 and LA River Channel.	Bell / Bell Gardens	I-710 Motion 5.1/5.2 Early Action Concept, City of Bell Gardens/COG	Freeway	Freeway Improvements
LB-ELA_0035	I-710 Auxiliary Lanes (Willow to Wardlow)	Provide auxiliary lanes in the NB and SB directions of I-710, between Willow St. and I-405 Connectors at Wardlow Road to better manage traffic weaving conflicts and related congestion.	Long Beach	I-710 Motion 5.1/5.2 Early Action Concept	Freeway	Freeway Improvements
LB-ELA_0036	I-710 / I-405 Connector Project Improvements	Modify SB I-710 Collector Distributor Road/Eliminate SB I-710 to EB Wardlow Boulevard exit at Wardlow Road. Modify NB I-710 to SB I-405 Connector/Eliminate WB Wardlow Boulevard on ramp to NB I-710/I-405 Connectors.	Long Beach	I-710 Motion 5.1/5.2 Early Action Concept	Freeway	Freeway Improvements

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0037	I-710/I-105 Connector Project Improvements	Modify and relocate I-710 / I-105 Connectors along I-710 between I-105 and Imperial Highway in both directions to resolve weaving issues and related congestion on I-710 between I-105 and Imperial Highway.	Lynwood / Paramount	I-710 Motion 5.1/5.2 Early Action Concept	Freeway	Freeway Improvements
LB-ELA_0038	I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Boulevard)	Provide auxiliary lanes in the NB and SB directions of I-710, between Del Amo Boulevard and Long Beach Boulevard to better manage traffic weaving conflicts and related congestion.	Rancho Dominguez/Long Beach	I-710 Motion 5.1/5.2 Early Action Concept	Freeway	Freeway Improvements
LB-ELA_0043		I-710, MP 22.2. In Commerce and Vernon, at Hobart Rail Yard Overhead No. 53-0840. Rehabilitate, clean, and paint bridge.	Commerce/Vernon	SHOPP	Freeway	Freeway Improvements
LB-ELA_0045		Route 91, MP R11.7. In Long Beach, at LA River (W91 -N710 & S710) Bridge No. 53-2143F. Replace portions of the bridge deck and apply polyester concrete overlay.	Long Beach	SHOPP	Freeway	Freeway Improvements
LB-ELA_0053		I-405, MP 7.2. In Long Beach, at the Pacific Place Maintenance Station at 3725 Pacific Place. Replace a deteriorated building with a new building at the maintenance station.	Long Beach	SHOPP	Freeway	Freeway Improvements
LB-ELA_0091	I-710/Anaheim Interchange Improvement	Reconstruct I-710/Anaheim Interchange to provide operational and safety improvements.	Long Beach	City of Long Beach/COG	Freeway	Freeway Improvements
LB-ELA_0092	I-710/PCH Interchange Improvement	Reconstruct I-710/Pacific Coast Highway (PCH) Interchange to provide operational and safety improvements.	Long Beach	City of Long Beach/COG, SPP Mapping	Freeway	Freeway Improvements
LB-ELA_0093	I-710/Wardlow Interchange Improvement	Reconstruct I-710/Wardlow Interchange to provide operational and safety improvements.	Long Beach	City of Long Beach/COG	Freeway	Freeway Improvements
LB-ELA_0156	Traffic Controls at I-710 Freeway Ramps	Add traffic signals with protected pedestrian/bicycle phase(s), crosswalks, lighting, landscaping, signing and striping, and other safety-related pedestrian features at the ramp termini of I-710.	Multiple Jurisdictions	SPP Survey	Freeway	Freeway Improvements
LB-ELA_0180	I-710 Truck Bypass Lanes	Construct truck bypass lanes on I-710 between Willow Street and Del Amo Boulevard. The purpose of the improvement would be to separate cars from trucks through the congested I-710/I-405 interchange for purposes of safety and mobility.	Long Beach	SPP Survey	Freeway	Freeway Improvements
LB-ELA_0181	Freeway Lids, Caps, and Widened Bridge Decks	Widen arterial bridge decks at key locations over the I-710 Freeway/LA River Channel to provide "land islands," "urban parklets," and "green belt" connections over I-710 and the LA River. Include pedestrian / bicycle pathways.	Multiple Jurisdictions	SPP Survey	Freeway	Freeway Improvements
LB-ELA_0039		I-710, MP R6.0-14.1. In Long Beach and Compton, from Shoreline Drive to north of Alondra Boulevard. Enhance highway worker safety by constructing Maintenance Vehicle Pullouts (MVPs), upgrading guardrail and end treatments, paving beyond the gore, installing erosion control and replacing pull boxes.	Long Beach/Compton	SHOPP	Freeway	Freeway Amenities / ITS

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0046		I-405. In and near the cities of Long Beach, Signal Hill, Los Angeles, and Carson, rehabilitate pavement, upgrade signs, rehabilitate bridge, upgrade lighting, improve safety, rehabilitate Transportation Management System (TMS) elements and replace copper cabling with fiber, rehabilitate culverts, and upgrade facilities to Americans with Disabilities Act (ADA) standards.	Multiple Jurisdictions	SHOPP	Freeway	Freeway Amenities / ITS
LB-ELA_0048		I-105, MP R14.3. In Paramount, at Grove Street at the Garfield Avenue Pump Station. Replace pumps, add lighting, construct Maintenance Vehicle Pullouts (MVPs), and provide a fiber optic connection to the pump house.	Paramount	SHOPP	Freeway	Freeway Amenities / ITS
LB-ELA_0049		I-710, MP 18.7-19.6. In South Gate and Bell Gardens, at the South Gate Pump Plant and the Florence Avenue Pump Plant; also in Downey on Route 105 at the Ardis Avenue Pump Plant (PM R16.48). Upgrade pump plants.	South Gate/Bell Gardens/Downey	SHOPP	Freeway	Freeway Amenities / ITS
LB-ELA_0050		Route 91. In the cities of Carson, Compton, Long Beach, and Bellflower. Upgrade overhead signs and sign structures, rehabilitate landscaping, and enhance highway worker safety.	Multiple Jurisdictions	SHOPP	Freeway	Freeway Amenities / ITS
LB-ELA_0052		Route 47. In Long Beach from Route 710 to north of Route 710 (PM 3.497/3.58). Upgrade Transportation Management System (TMS) elements, replace fiber optic cable, and connect upgraded equipment to communication hubs.	Wilmington	SHOPP	Freeway	Freeway Amenities / ITS
LB-ELA_0054		I-710, MP 24.7. Near the neighborhood of East Los Angeles, at Humphrey Maintenance Station at 102 South Humphreys Avenue. Construct a new office building, an equipment storage building, and a Zero Emission Vehicle (ZEV) charging station and demolish an existing building.	East Los Angeles	SHOPP, SPP Survey	Freeway	Freeway Amenities / ITS
LB-ELA_0137	Freeway Soundwalls	Build higher soundwalls to protect residents from air pollution, noise, and other impacts (Design Package 2, Design Package 3). Perform noise studies for all remaining walls along I-710 that are less than 16 feet high to identify additional, feasible soundwall projects that would realize the greatest benefits for impacted residents and other sensitive receivers.	Multiple Jurisdictions	SPP Survey	Freeway	Freeway Amenities / ITS
LB-ELA_0155	Drought Tolerant Landscaping, Hardscaping and Aesthetic Features along I-710	Provide drought tolerant landscaping within existing, available right-of-way along I-710. Where needed, add context sensitive lighting features and additional signage to improve safety. Include hardscaping and other aesthetic features to improve the attractiveness of the freeway for users and for adjacent land uses/communities.	Multiple Jurisdictions	SPP Survey, Task Force, Equity Working Group	Freeway	Freeway Amenities / ITS
LB-ELA_0157	I-710 Particulate Matter (PM) Reduction Pilot Project	Implement a pilot project on I-710 to deploy and evaluate measures to reduce exposure of nearby populations to particulate matter, specifically localized sources of entrained/fugitive dust, tire wear, and brake wear associated with traffic on the freeway. These measures may include roadside vegetation barriers within available Caltrans' right-of-way, air filters for nearby schools or community facilities, pavement materials, frequent street-sweeping, and deployment of air quality monitoring systems, among others. In addition, include options to examine the effectiveness of "cool pavement" applications to reduce heat island effects. As part of the work plan, the pilot project would include a study element to assess and document the efficacy of the various measures.	Multiple Jurisdictions	SPP Survey, Task Force	Freeway	Freeway Amenities / ITS
LB-ELA_0188	Freeway Landscaping / Maintenance	Ongoing Caltrans Program that ensures that maintenance projects and activities such as trash removal, landscaping, provision of drought-resistant vegetation, and graffiti removal take place on a regular basis within state, public rights of way in the LB-ELA Corridor. Ensure that the agency dedicates sufficient resources for this effort.	Study Area Wide	SPP Survey	Freeway	Freeway Amenities / ITS
LB-ELA_0154	I-710 Zero-Emission Truck Travel Zone Restriction	Establish a zero-emission truck-only travel zone on I-710. Only zero emissions trucks would be able to travel on I-710, while diesel and near-zero emissions heavy duty trucks would be excluded. No new lanes would be added to the existing footprint of I-710. No restrictions would be placed on autos.	Multiple Jurisdictions	SPP Survey, COG Ad Hoc Committee	Freeway	Zero Emissions Lanes on I-710

Indicates Umbrella Program of Multiple Projects and/or Initiatives

Project ID	Name (if applicable)	Short Description	Location	Source	Type	Subtype
LB-ELA_0183	Zero Emissions Truck Lane	Explore options and assess the feasibility of converting the right-hand lane on I-710 to create a Zero Emissions Truck Lane. Only zero emissions trucks would be able to travel in this lane, while fossil fuel vehicles would be excluded. No new lanes would be added to the existing footprint of I-710.	Multiple Jurisdictions	Metro, SPP Survey	Freeway	Zero Emissions Lanes on I-710
LB-ELA_0153	Congestion Pricing	Implement congestion pricing strategy for the I-710 freeway. No new lanes would be added to the existing footprint of I-710. Rather single occupant vehicles and trucks entering and exiting the freeway would be tolled by deploying an automated readers and electronic toll collection system that allows users to conveniently pay tolls using a toll tag that is mounted on the interior of their vehicle. Carpools, zero emission trucks, and zero emission autos would travel for free.	Multiple Jurisdictions	SPP Survey	Freeway	Congestion Pricing
LB-ELA_0182	Express Lanes Strategic Initiative	Advance planning studies to implement express lanes on key freeways in the study area, including I-405, I-105, and SR-91.	Multiple Jurisdictions	Metro, SPP Survey	Freeway	Congestion Pricing

Sources:

SPP Survey: Metro Task Force Social Pinpoint Survey Comments
 SPP Mapping: Metro Task Force Social Pinpoint Mapping Comments
 PIPO: Metro Task Force 2022/2023 Pre-Investment Plan Opportunity Projects
 COG/Cities/County: Gateway Cities COG Complete Streets Master Plans
 COG Ad Hoc Committee: Summary of Recommended Projects and Program
 Community Leadership Committee (CLC)

Metro ATSP: Metro Active Transportation Strategic Plan
 LB Bicycle Master Plan: City of Long Beach Bicycle Master Plan
 SHOPP: Caltrans State Highway Operation and Protection Program
 I-710 Motion 5.1/5.2 Early Action Concepts
 CA-7: Community Alternative 7
 Equity Working Group

Metro LRTP: Metro Long Range Transportation Plan
 SCAG RTP: Southern California Association of Governments Regional Transportation Plan
 Metro 2028 Mobility Concept Plan
 City Name/COG: Projects Submitted by Local Jurisdictions
 Task Force

Attachment A - Proposed Bike Routes in the LB-ELA Corridor

Ref. #	Corridor / Alignment	Project Limits	Dir.	Type	Source
Bike-1	Whittier Blvd	Lorena St to Garfield Ave	W/E	Class II or IV	Metro ATP
Bike-2	Telegraph Rd	Garfield Ave to Rosemead Blvd	W/E	Class II or IV	Metro ATP
Bike-3	Firestone Blvd	Alameda St to Pacific Blvd and LA River Bike Path to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-4	Imperial Hwy	Alameda St to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-5	El Segundo Blvd	Central Ave to Alameda St	W/E	Class II or IV	Metro ATP
Bike-6	Compton Blvd	Central Ave to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-7	Artesia Blvd	Central Ave to Orange Ave and Downey Ave to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-8	Del Amo Blvd	Wilmington Ave to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-9	Carson St.	Long Beach Blvd to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-10	E 223rd St / Wardlow Rd	Wilmington Ave to Hesperian Ave	W/E	Class II or IV	Metro ATP
Bike-11	E Sepulveda Blvd / Willow St	Wilmington Ave to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-12	Pacific Coast Highway (PCH)	I-110 to SR 103	W/E	Class II or IV	Metro ATP
Bike-13	Anaheim St.	I-110 to 9th St and Magnolia Ave to Lakewood Blvd	W/E	Class II or IV	Metro ATP
Bike-14	3rd St./Broadway	LA River Bike Path to Cherry Ave	W/E	Class IV	Metro ATP
Bike-15	Ocean Blvd	Gaffey St to SR 47	W/E	Class IV	Metro ATP
Bike-16	SPRR ROW/BNSF ROW (Slauson)	Alameda St to Rio Hondo Bike Path	W/E	Class I	Metro ATP
Bike-17	PE ROW (WSAB)	LA River Bike Path (Vernon) to Lakewood Blvd	W/E	Class I	Metro ATP
Bike-19	S. Alameda St	San Pedro to Downtown LA	S/N	Class II or IV	Metro ATP
Bike-20	Long Beach Blvd/Atlantic Blvd	E. Broadway Blvd to LA River Bike Path	S/N	Class II or IV	Metro ATP
Bike-21	Garfield Ave./Cherry Ave.	Ocean Blvd to Whittier Blvd	S/N	Class II or IV	Metro ATP
Bike-22	Lakewood Blvd./Rosemead Blvd.	Del Amo Blvd to SR-60	S/N	Class IV	Metro ATP
Bike-24	UPRR ROW	PCH to Washington Blvd	S/N	Class I	Metro ATP
Bike-25	Compton Creek	Artesia Blvd to El Segundo Blvd	S/N	Class I	Metro ATP

Attachment A - Proposed Bike Routes in the LB-ELA Corridor

Ref. #	Corridor / Alignment	Project Limits	Dir.	Type	Source
Bike-26	PE ROW	Willow St to LA River Bike Path	S/N	Class I	Metro ATP
Bike-27	Laguna Dominguez Channel	PCH to Wilmington Ave	S/N	Class I	Metro ATP
Bike-28	LA River Bike Path	Atlantic Ave to I-10	S/N	Class I	Metro ATP
Bike-29	Olympic Blvd	S Ditman Ave to Garfield Ave and S Central Ave to S Lorena St	W/E	Class II	Metro ATP
Bike-30	E Slauson Ave	Slauson A (Blue) Line Station to Rosemead Blvd	W/E	Class II	Metro ATP
Bike-31	Firestone Blvd	Pacific St to Atlantic Ave	W/E	Class II	Metro ATP
Bike-32	Tweedy Blvd	S Alameda St to Atlantic Ave	W/E	Class II	Metro ATP
Bike-33	Abbott Rd	S Alameda St to Atlantic Ave	W/E	Class II	Metro ATP
Bike-34	Gardendale St/Foster Rd	LA River Bike Path to Lakewood Blvd	W/E	Class II	Metro ATP
Bike-35	Alondra Blvd	LA River Bike Path to Lakewood Blvd	W/E	Class II	Metro ATP
Bike-36	E South St	LA River Bike Path to Lakewood Blvd	W/E	Class II	Metro ATP
Bike-37	Carson St	Wilmington Ave to Santa Fe Ave	W/E	Class II	Metro ATP
Bike-39	SR-47	I-710 to Willow St	S/N	Class II	Metro ATP
Bike-40	S Wilmington Ave	223rd St to Alondra Blvd	S/N	Class II	Metro ATP
Bike-41	Long Beach Blvd	LA River Bike Path to Firestone Blvd	S/N	Class II	Metro ATP
Bike-42	Paramount Blvd	Artesia Blvd to W Beverly Rd	S/N	Class II	Metro ATP
Bike-43	Arizona Ave	Whittier Blvd to SR-60	S/N	Class II	Metro ATP
Bike-44	14th St	Magnolia Ave to Linden Ave	W/E	Class IV	Long Beach MP
Bike-45	Del Mar Ave	Long Beach Blvd to Bixby Rd	W/E	Class IIIA	Long Beach MP
Bike-46	Delta Ave	Hill St to Wardlow Rd	W/E	Class IIIA	Long Beach MP
Bike-47	15th St/E New York St/ Lewis Ave	Linden Ave to PCH	W/E	Class IV	Long Beach MP
Bike-48	20th St	Orange Ave to Walnut Ave	W/E	Class IV	Long Beach MP
Bike-49	52nd St	Linden Ave to Atlantic Ave	W/E	Class IIIA	Long Beach MP

Attachment A - Proposed Bike Routes in the LB-ELA Corridor

Ref. #	Corridor / Alignment	Project Limits	Dir.	Type	Source
Bike-51	W 10th St/Harbor Ave./W 20th St/Delta Ave.	W 9th St to Hill St	S/N	Class IIIA	Long Beach MP
Bike-52	Harbor Plaza	Harbor Scenic Dr to Queens Wy	S/N	Class IV	Long Beach MP
Bike-53	Linden Ave	Bixby Rd to San Antonio Dr	S/N	Class IV	Long Beach MP
Bike-54	Linden Ave	52nd St to Harding St	S/N	Class IV	Long Beach MP
Bike-55	Daisy Ave	Hill St to Spring St	S/N	Class IV	Long Beach MP
Bike-56	Daisy Ave / Loma Vista Dr / Magnolia Ave	3rd St to 20th St	S/N	Class IV	Long Beach MP
Bike-58	Myrtle Ave	Harding St to 72nd St	S/N	Class IIIA	Long Beach MP
Bike-59	Pacific Ave	Del Mar Ave to Wardlow Rd	S/N	Class IV	Long Beach MP
Bike-60	Pier J / South Waterfront Path	Harbor Scenic Dr to Harbor Plaza	S/N	Class IV	Long Beach MP
Bike-61	Spring St	DeForest Ave to Long Beach Blvd	W/E	Class IV	Long Beach MP
Bike-62	Alamitos Ave	Ocean Blvd to 17th St	S/N	Class IV	Long Beach MP
Bike-63	Spring St	Long Beach Blvd to Lakewood Blvd.	W/E	Class IV	Long Beach MP
Bike-64	Orange Ave	10th St to E Harding St	S/N	Class IV	Long Beach MP
Bike-65	34th St	De Forest Ave to Maine Ave	W/E	Class IV	Long Beach MP
Bike-66	6th Street	Orange Ave to San Francisco Ave	W/E	Class IV	Long Beach MP
Bike-67	Cover St	Cherry Ave to Heinemann Ave	W/E	Class IV	Long Beach MP
Bike-68	Dairy Ave	Market St to South St	S/N	Class IV	Long Beach MP
Bike-70	South St	De Forest Ave to Orange Ave	W/E	Class IV	Long Beach MP
Bike-72	Market St	Pacific Ave to Atlantic Ave	W/E	Class IV	Long Beach MP
Bike-75	Pine Ave	Shoreline Dr to Willow St	S/N	Class IV	Long Beach MP
Bike-76	San Francisco Ave/W 3rd St/Fairbanks Ave/De Forest Ave	3rd St to Anaheim St	S/N	Class IV	Long Beach MP
Bike-77	6th St	San Francisco Ave to Topaz Ct	W/E	Class IV	Long Beach MP
Bike-78	9th St/W I St	Southern Pacific RR Right-of-Way to W City Limits (LB)	W/E	Class IV	Long Beach MP

Attachment A - Proposed Bike Routes in the LB-ELA Corridor

Ref. #	Corridor / Alignment	Project Limits	Dir.	Type	Source
Bike-79	Ximeno Ave/E Rosada St	PCH to Lakewood Blvd	S/N	Class IIIA	Long Beach MP
Bike-80	Artesia Blvd	Orange Ave to Downey Ave	W/E	Class IV	Long Beach MP
Bike-81	Wardlow Rd	Hesperian Ave to Long Beach Blvd	W/E	Class IV	Long Beach MP
Bike-82	PCH	SR 103 to Lakewood Blvd	W/E	Class IV	Long Beach MP
Bike-83	Anaheim St.	9th St to Magnolia Ave	W/E	Class IV	Long Beach MP
Bike-84	3rd St./Broadway	LA River Bike Path to Cherry Ave	W/E	Class IV	Metro ATP
Bike-85	Ocean Blvd	SR 47 to LA River Bike Path	W/E	Class IV	Metro ATP
Bike-86	Lakewood Blvd	Jacinto Way to Del Amo Blvd	S/N	Class IV	Metro ATP
Bike-87	Santa Fe Ave	9th St to Wardlow Rd	S/N	Class IV	Metro ATP
Bike-88	Greenleaf-Long Beach-Artesia or Greenleaf-Santa Fe-Alondra	Compton Creek Bike Path (at Greenleaf) to LA River Bike Path	W/E	Class II or IV	SPP Mapping
Bike-89	Obispo Ave	Pacific Coast Hwy to Willow St	S/N	Class II or IV	SPP Mapping
Bike-90	Beverly Blvd	Pomona Blvd to Sadler Ave	W/E	Class II or IV	SPP Mapping
Bike-91	Atlantic Blvd/Eastern Ave	Firestone Blvd to SR-60	S/N	Class IV	SPP Mapping
Bike-92	Wardlow Road	Pacific Ave to Cherry Ave	W/E	Class IV	SPP Mapping
Bike-93	Atlantic Ave	Tweedy Blvd to Randolph St/SP RR	S/N	Class IV	SPP Mapping
Bike-94	Washington Blvd	Ransom St. to Garfield Ave	W/E	Class IV	SPP Mapping
Bike-95	Southern Ave/E. Frontage Rd/Miller Wy/W. Frontage Rd	Urban Orchard Park to Garfield Ave.	W/E	Class I	SPP Mapping
Bike-96	Randolph St	Maywood Ave to LA River Bike Path	W/E	Class II or IV	City of Bell/COG
Bike-97	West Santa Ana Branch RR ROW	Somerset Blvd to LA River Bike Path	S/N	Class I	City of Paramount/COG
Bike-98	LA River Path - Central LA	Maywood to Elysian Valley	S/N	Class I	Metro LRTP
Bike-99	I-710 LA River Bike Path	Long Beach to Maywood	S/N	Class I	SHOPP
Bike-100	Artesia Blvd	Central to Lakewood	W/E	Complete Street	COG/Cities/County
Bike-101	Atlantic Ave	Ocean to SR-60	S/N	Complete Street	COG/Cities/County

Attachment A - Proposed Bike Routes in the LB-ELA Corridor

Ref. #	Corridor / Alignment	Project Limits	Dir.	Type	Source
Bike-102	Florence Blvd	Alameda to Lakewood	W/E	Complete Street	COG/Cities/County
Bike-103	Imperial Hwy	Alameda to Lakewood	W/E	Complete Street	COG/Cities/County
Bike-104	Alondra Blvd	Central to Lakewood	W/E	Complete Street	COG/Cities/County
Bike-105	Slauson Ave	Alameda to Lakewood	W/E	Complete Street	COG/Cities/County
Bike-106	Long Beach Blvd/Pacific Blvd	Ocean to Slauson	S/N	Complete Street	COG/Cities/County

Note Regarding Sources:

Several Sources Overlap. For example, many SPP Mapping Commenters identified routes that were already included in Local Jurisdiction/Regional master plans.

- Metro ATP: Metro Active Transportation Plan
- Long Beach MP: Long Beach Master Plan
- SPP Mapping: Social Pinpoint Tool Mapping Comments

Note Regarding Bike Route Classifications:

- Class I: Class I bikeways, also known as bike paths or shared-use paths, are facilities with exclusive right of way for bicyclists and pedestrians away from the roadway.
- Class II: Class II bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of roadway for bicycle travel.
- Class III: Class III bikeways designate a preferred route for bicyclists on streets shared with motor vehicle traffic. Routes are designated by bike route signs and/or sharrows.
- Class IV: A Class IV separated bikeway is for the exclusive use of bicycles, physically separated from the roadway by a buffer or vertical feature.



ATTACHMENT F

We're developing a new vision for the
Long Beach-East Los Angeles Corridor Mobility Investment Plan

Initial List of Projects & Programs: Categories

Projects are organized by “improvement category”:

All projects and programs should support a multimodal future for the Corridor.

Project categories represent different modes:

Active Transportation

Freeway

Arterial Roadways

Goods Movement

Community Programs

Transit

Initial List of Projects & Programs: Sub-Categories

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Active Transportation Sub-Categories:

- 1. Pedestrian & First/Last Mile Improvements*
- 2. Bike Routes & Facilities*
- 3. Safety & Amenities*
- 4. Travel Demand Management*

Initial List of Projects & Programs: Active Transportation

Project Types Include:

Pedestrian & First/Last Mile Improvements

- New pedestrian/bike overcrossings
- New pedestrian/bike pathways
- New pedestrian/bike connections to rail, transit, LA River
- New Crosswalks, sidewalks

Bike Routes & Facilities

- New Bike Paths/Trails
- New Buffer/Barrier-Protected Bike Routes
- New Bike Lanes
- New, Signed Bike Routes

Safety & Amenities

- High visibility crosswalks
- Wider sidewalks
- Pedestrian/bike crossing enhancements
- Bike parking, lighting, repair stations
- Bike share programs
- Traffic controls for pedestrians/bikes
- ADA improvements
- Shade structures, trees, landscaping
- Security & lighting

Travel Demand Management

- Vanpools/carpool programs
- Telecommuting programs
- Promotional Campaigns to encourage Alternative Modes of Travel

Bicycle and Pedestrian Improvements



Bike Lanes



New bicycle lane on existing roadways, indicated by striping, signage, and physical barriers.

Shared-Use Path



New bicycle paths just for bicyclists and pedestrians.

Pedestrian Safety and Amenities



Wider sidewalks, lighting, benches, shade trees, landscaping, and trash receptacles to improve the safety and comfort of the pedestrian experience.

Crossing Safety Enhancements



High Visibility Paint, Flashing Signals, Pedestrian Safety Island, Curb Extensions, or Bulb-outs to create short crossing distances and increased awareness of crossing locations.

Bike Share Programs



Low-cost, short-term bike rental from strategically placed docks or stations.

Bike/Ped Traffic Controls



Leading Pedestrian Interval, Bike crossing signals, No turn on red signals, signals and controls to reduce conflicts between pedestrians, bicyclists, and drivers.

Initial List of Projects & Programs: Arterial Roadway

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Arterial Roadways Sub-Categories:

- 1. Complete Streets*
- 2. General Local / Regional Roadway*
- 3. Signal Coordination / TSM / ITS*
- 4. Traffic Calming*

Initial List of Projects & Programs: Arterial Roadway

Project Types Include:

Complete Streets

- New green spaces, trees, bioswales
- Bike and pedestrian improvements
- Public art
- Signage
- Transit stop amenities (furniture, shelters)
- Operational / safety improvements
- ADA upgrades
- LED street lighting
- Stormwater retention

Traffic Calming

- Speed Reductions
- Speed Bumps
- Truck Restrictions in Neighborhoods
- Roundabouts
- Road Diets
- Stop Signs, Traffic Signals
- Speed Enforcement Cameras
- Flashing Crosswalks
- School Zone Warning Devices

General Local / Regional Roadway

- Stormwater treatment
- Upgrade traffic signals, crosswalks, sidewalks, driveways, curb ramps, etc.
- New/improved bridges
- ADA upgrades
- Intersection Improvements
- Pedestrian circulation and safety
- Streetscape improvements
- Bike and pedestrian improvements
- Roadway widening/realignment

Signal Coordination / TSM / ITS

- Traffic / Ped signal upgrades
- Video camera installation
- Equipment upgrades
- Emergency vehicle priority
- Signage
- Signal Synchronization
- Advanced technologies to manage traffic and to inform traveling public



Intersection Improvements



Turn lanes and other design features to reduce traffic queues at congested intersections.

Traffic Calming Features



Roundabouts, speed humps, and other design features or signage to slow traffic on local streets or near schools.

Traffic Management Features



Traffic signal coordination on major arterial corridors to maximize "green time" based on actual traffic conditions.

Added Roadway Lanes



Roadway reconfiguration to add travel lanes, designate parking lanes for peak hour travel lanes, or establish bus only lanes

Visual Improvements



Landscaping, hardscaping, public art, and other design features to improve the appearance of the roadway.

Initial List of Projects & Programs: Community Programs

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Community Programs Sub-Categories:

- 1. Job Creation / Work Opportunities*
- 2. Air Quality / Community Health*
- 3. Environment*
- 4. Housing Stabilization / Land Use*

Initial List of Projects & Programs: Community Programs & Policies

Program Types Include:

Job Creation / Work Opportunities

- Targeted Local Hire
- Employment Recruitment Initiatives
- Vocational Educational Programs
- Economic Stabilization Policies
- Workforce Education & Development
- Partnerships with Employers
- Partnerships with Academic Institutions

Environment

- Greenhouse Gas Emissions Reduction
- Renewable Energy / Solar Power Project
- Urban Greening, Tree Canopy, Green Space
- Greenbelts, Drought Tolerant Planting Parklets
- Habitat Restoration and Connectivity
- Public Art / Aesthetics
- Zero Emissions Infrastructure for Autos

Air Quality / Community Health

- Zero Emission Infrastructure for Autos
- Bus Electrification
- Community Health Benefit Programs
- Air Filters for Schools & Community Facilities
- Environmental Building Improvements
- Health Education / Outreach
- Community Health Screening
- Vegetation Barriers/Buffer Landscaping

Housing Stabilization / Land Use

- Housing / Rent Stabilization Policies
- Anti-Displacement Programs
- Rental Assistance Programs
- Inclusionary Housing
- Transit Oriented Communities
- Homeless Programs
- Partnership with Community Orgs
- Density Bonus Programs
- Community Land Trusts
- Grant Writing Assistance



Health Benefits Program



Air filters for schools or vegetation buffers to reduce the harmful effects of air pollution.

EV Car-Share & Charging



Programs to provide short-term rental of electric vehicles and charging infrastructure for Zero-emission personal vehicles and trucks.

Local Hire and Workforce Development



Targeted and local hire programs to increase the share of public dollars that is devoted to creation of local jobs in the communities, and education/training of the local workforce.

Anti-displacement Strategies



Affordable housing policies, low-income rental assistance programs, tenants' rights education and legal representation to prevent unjust evictions.

Community Development Programs



Incentive programs to build affordable and mixed income housing, development of local parks, and other community resources

Initial List of Projects & Programs: Freeway

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Freeway Sub-Categories:

- 1. Congestion Pricing Option*
- 2. Freeway Amenities / ITS*
- 3. Freeway Improvements*
- 4. Zero Emissions Lanes on I-710*

Initial List of Projects & Programs: Freeway

Project Types Include:

Congestion Pricing Option

- Congestion Pricing to charge single occupant vehicles while carpools, buses, zero emissions trucks and zero emissions autos would travel free.

Freeway Improvements

- Interchange Improvements
- Ramp Safety & Redesign
- Auxiliary & Operational Lanes
- Traffic Controls to Protect Bikes / Peds at Freeway Ramps
- Truck Bypass Lanes
- Freeway Lids, Caps, and Widened Bridge Decks to Provide "Greenbelt" Connections over I-710/LA River

Freeway Amenities / ITS

- Particulate Matter Reduction Pilot Project
- Freeway Repair & Safety projects
- Soundwalls
- Drought Tolerant Landscaping

Zero Emissions Lanes on the I-710

- Zero Emission Truck Travel Zone Restrictions
- Zero Emissions Truck Lanes

Project & Program Summary

Freeway Improvements



Interchange Improvements



Introduce improvements that make it safer and easier for vehicles to get on and off the freeway.

Landscaping Features



Incorporate landscaping, hardscaping, and other design features along the freeway to improve visual experience.

Zero-emission Truck Lane



Create a dedicated lane on the freeway just for zero emissions trucks.

Sound Wall Improvements



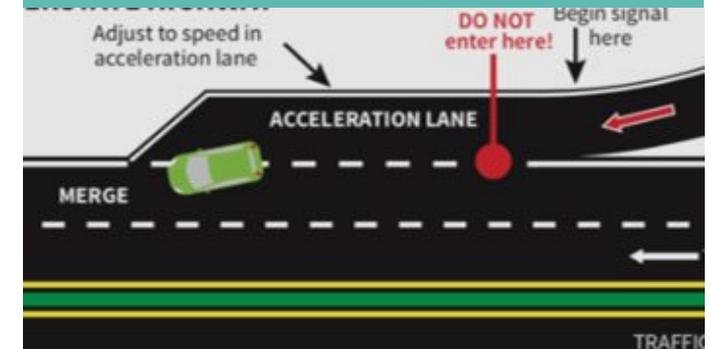
Higher sound walls along the freeway to reduce noise.

Traffic Signals



Control features, such as traffic signals, to protect bicyclists and pedestrians at the freeway ramps.

Design Improvements



Spot improvements, such as acceleration/deceleration lanes near interchanges, to relieve congestion bottlenecks.

Initial List of Projects & Programs: Goods Movement

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Goods Movement Sub-Categories:

- 1. Freight Rail / Goods Movement TDM*
- 2. Ports*
- 3. Truck Programs / ITS*

Initial List of Projects & Programs: Goods Movement

Project Types Include:

Freight Rail / Goods Movement Travel Demand Mgmt.

- On Dock Rail Expansion
- New Inland Port, Greater Use of Freight Rail
- Port Railyard Expansion & Modernization
- Freight Rail Grade Separations

Ports

- Interchange Improvements
- Grade Separations
- Roadway Realignment, Safety, and Landscape Improvements
- Wharf Expansions & Vessel Emission Reductions
- Cargo Operational Efficiencies

Truck Programs / Intelligent Transportation Systems

- Zero Emissions Truck Programs
- Zero Emissions Infrastructure
- Empty Container Management
- Use of Advanced Technologies to Optimize Sequencing of Container Delivery and Pick-Ups to Reduce Congestion near Railyards & Ports



On-Dock Freight Rail Facilities



Freight rail infrastructure in port facilities to reduce truck trips associated with goods movement.

Short-haul Freight Rail



Inland port/implement short-haul freight rail service to encourage greater use of freight rail.

Zero Emissions Trucks



Program to reduce diesel trucks in favor of zero emissions trucks

Initial List of Projects & Programs: Transit

Active Transportation

Arterial Roadways

Community Programs

Freeway

Goods Movement

Transit

Transit Sub-Categories:

- 1. High-Capacity Transit (Rail/BRT)*
- 2. Transit Amenities*
- 3. Bus Transit*
- 4. Rail Line / Station Improvements*

Initial List of Projects & Programs: Transit

Project Types Include:

High-Capacity Transit (Rail/BRT)

- New light-rail stations/lines
- Light Rail line Extensions
- Bus Rapid Transit project

Transit Amenities

- Bus shelters and lighting
- Transit security features
- Web app for transit times
- Transit discounts / free passes
- Transit education program
- Customer experience program
- Real time displays
- Transit Cleaning & Maintenance
- Station furniture and shade
- ADA improvements
- Traffic control for pedestrians and bikes

Bus Transit

- Express Service
- Shuttles
- Electric bus charging
- On-demand bus (Micro-Transit)
- Improve bus speeds
- Increased bus frequencies
- Bus Priority Lanes
- Bus electrification projects

Rail Line / Station Improvements

- Station improvements
- Signal prioritization for trains
- Station maintenance
- Pedestrian safety improvements at stations
- Improved bike/ped connections
- Train reliability improvements
- Grade separations for trains

Transit (Bus or Rail) Improvements



Transit Service Improvements



Additional transit routes or increase in frequency of existing services to reduce waiting times at bus stop and train stations.

Bus Priority Lanes



Bus priority lanes on local streets to improve bus travel times and reliability.

Improved Transit Amenities



Improved amenities such as lighting, security cameras, shelters at bus stops and at train stations.

Transit Fare Discounts



Increased transit fare discounts for low-income riders, students, and seniors.

Shuttle Services



On-demand transit shuttles (shuttle rides by appointment) in more communities.

Bus Boarding Improvements



Improvements for more efficient bus stopping and boarding such as all-door boarding, and/or design features such as bus bulb-outs or boarding islands

ATTACHMENT G

Evaluation Criteria – Long Beach-East Los Angeles Corridor Mobility Investment Plan

Categories	Evaluation Performance Metrics	Type
Air Quality Benefits	AQ1: Reduce Emissions (NOx, PM2.5)	Quantitative
	AQ2: Facilitates clean technologies & lower emissions vehicles	Qualitative
	AQ3: Mode Shift to cleaner modes	Quantitative
Community Benefits (including Health)	CH1*: Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)	Quantitative
	CH2*: Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)	Qualitative
	CH3*: Mode Shift to active transportation, transit	Quantitative
	CH4: Improve the User Experience (may be different metrics for different modes)	Qualitative/Quantitative
	CH5*: Bike/Ped Access to parks, recreational areas, or open spaces	Qualitative
Mobility Benefits	MB1: Ridership	Quantitative
	MB2: Speeds / Travel Times (people, goods)	Quantitative
	MB3: Reduce Congestion (hours of delay for people & goods)	Quantitative
	MB4: Modal Accessibility (by zone)	Quantitative
	MB5: Reliability (transit, roadway, goods movement)	Quantitative
	MB6: Gap Closures	Quantitative
	MB7: Increase in travel options	Qualitative
Safety Benefits	SF1*: Protections for Bike / Users (bike class)	Qualitative
	SF2*: Traffic Protections (bike/ped)	Qualitative
	SF3: Personal Security	Qualitative
	SF4*: Includes Safety Features	Qualitative
	SF5: Reducing conflict points (vehicle safety)	Qualitative
	SF6*: Traffic Calming Features	Qualitative
	SF7: Improves / rehabilitates existing infrastructure	Qualitative
Environment Benefits	EN1: Improved Environment from Mode Shifts	Qualitative
	EN2: GHG Reduction Potential	Qualitative/Quantitative
	EN3: Protects natural habitat (Greening Features)	Qualitative
	EN4: Water Quality, Water Capture, Drainage, and Flood Management features	Qualitative
	EN5: Reducing energy use	Qualitative
	EN6*: Reduce Heat Island Effect; Provide Cooling Features for Users	Qualitative
	EN7: Potential for Noise Reduction	Qualitative
	EN8: Supports transportation efficient land use principles	Qualitative

Categories	Evaluation Performance Metrics	Type
Opportunity/Prosperity Benefits	OP1*: Access to jobs	Quantitative
	OP2: Accessibility (improving mobility challenges for all ages and abilities)	Qualitative
	OP3: Increases Regional Competitiveness	Qualitative
	OP4*: Work Force Development	Qualitative
	OP5*: Potential Targeted Hire, New Construction Jobs	Qualitative
	OP6*: Access to QoL amenities (grocery stores, healthcare services, schools)	Quantitative
	OP7*: Access to open space, recreation and parks, LA river, etc.	Quantitative
Equity	AQ1: Reduce Emissions (NOx, PM2.5)	Quantitative – EFC
	AQ3: Mode Shift to cleaner modes	Quantitative – EFC
	CH1: Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)	Quantitative – EFC
	EQ-CH2: Reduces exposure to air pollution in communities facing high pollution burden and asthma rates	Qualitative – EQ
	CH3: Mode Shift to active transportation, transit	Quantitative – EFC
	EQ-CH5: Increases access to high quality recreational facilities in areas lacking active transportation infrastructure and parks	Qualitative – EQ
	MB1: Ridership	Quantitative – EFC
	MB2: Speeds / Travel Times (people, goods)	Quantitative – EFC
	MB3: Reduce Congestion (hours of delay for people & goods)	Quantitative – EFC
	MB4: Modal Accessibility (by zone)	Quantitative – EFC
	MB5: Reliability (Transit, Roadway, Goods Movement)	Quantitative – EFC
	MB6: Gap Closures	Quantitative – EFC
	EQ-MB7: Increases reliable and accessible transportation options for those who cannot or prefer not to drive	Qualitative – EQ
	EQ-SF1: Improves physical safety for people, walking, biking, and rolling	Qualitative – EQ
	EQ-SF3: Improves perceptions of personal security for people walking, biking, rolling, and taking transit	Qualitative – EQ
	EQ-EN3: Contributes to remediation of environmental damage or loss of natural features	Qualitative – EQ
	EQ-EN6: Includes urban greening and cooling for areas of low tree canopy and high heat island burden	Qualitative – EQ
	EN7: Potential for Noise Reduction	Quantitative – EFC
OP1: Access to jobs	Quantitative – EFC	

Categories	Evaluation Performance Metrics	Type
	OP6: Access to Quality-of-Life amenities (grocery stores, healthcare services, schools)	Quantitative – EFC
	OP7: Access to open space, recreation and parks, LA river, etc.	Quantitative – EFC
	EQ-OP8: Increases quantity and quality of employment opportunities for underemployed and low-income workforce	Qualitative – EQ
	EQ-OP9: Reduces housing or transportation costs for low-income households	Qualitative – EQ
	EQ-OP10: Reduces residential or commercial displacement risk	Qualitative – EQ
Sustainability	SA1*: Reduces reliance on polluting and energy-intensive modes of travel and goods movement	Qualitative
	SA2*: Promotes physical activity and health through active transportation and recreation	Qualitative
	SA3*: Improves climate resilience through mitigation of flooding and extreme heat impacts	Qualitative
	SA4*: Supports job creation in, and workforce transitions to green technology and infrastructure sectors	Qualitative/Quantitative
	SA5*: Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity	Qualitative/Quantitative
Concerns**	Potential for Displacements	Qualitative
	Potential for Physical Impacts (ROW)	Qualitative
	Potential for Increased Commute Times	Quantitative/Qualitative
	*Potential for Traffic Diversion / Emission Shifting	Quantitative
	*Potential for New Hot Spots (Congestion, AQ, Ped/Bike Safety)	Quantitative/Qualitative
	Potential Construction Impacts	Qualitative
	*Potential for VMT Increases	Quantitative

*Criteria being used as a proxy for health outcomes

** During the evaluation process for specific projects, if there are found to be negative impacts that are not captured by these concerns, the project team will add new categories of concerns or document the impacts in some other way.

Project Considerations

Flags	Community Input Considerations (Flags)	Qualitative
	Equity Considerations (Flags)	Qualitative



Via Email

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April 10, 2023

Re: LB-ELA Mobility Investment Plan Evaluation and Screening Process - Health Criteria and Data

Dear Metro staff:

The undersigned members of the Coalition for Environmental Health & Justice ("CEHAJ") appreciate the opportunity to provide feedback on Metro's proposed evaluation criteria for the Long Beach-East LA Corridor Mobility Investment Plan ("Investment Plan"). We believe health is still missing and urge Metro to explicitly integrate health criteria into its evaluation and screening process. We have raised health repeatedly throughout this process and will continue to do so because we know this Plan will not succeed unless it takes on health directly.

The fact that I-710 corridor residents face health inequities is well-documented. For example, the diesel emissions from trucks, trains, ships, cargo-handling equipment, and other vehicles to move cargo next to and through the I-710 corridor causes severe and widespread health impacts, which disproportionately fall on low-income communities of color.¹ Corridor communities experience higher rates of respiratory illness and cancer than those living in well-resourced communities in Los Angeles County.² Publicly accessible tools like the [California Healthy Places Index](#) contain data on the life expectancy and general health of various communities across the state and highlights health disparities. Metro should use this qualitative and quantitative data to develop a health baseline from which to evaluate how proposed projects can improve health outcomes for corridor residents.

¹ See the California Air Resource Board, 2022 Scoping Plan, Appendix G: Public Health (Nov. 2022), at pp. 10-15, available at <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-g-public-health.pdf>.

² Colin Caprara, Community Health in the I-710 Corridor <https://la.myneighborhooddata.org/2019/09/community-health-in-the-710-corridor/>

The proposed project evaluation process has not yet directly incorporated health by establishing health criteria. Metro should compile and effectively utilize existing health data to fully and accurately assess the potential positive and negative impacts from proposed projects. While health makes sense as part of the Community goal, health criteria should also be folded into the others goals (especially Air Quality), as well as through the Equity and Sustainability Guiding Principles, which both commit to uplifting health. Failing to weave health into this evaluation framework runs the risk of not fully analyzing health impacts and potentially developing an Investment Plan made up of projects that could be rejected by agency regulators like the former I-710 expansion project.

We acknowledge this is not easy work, but we know taking the time to do center health will enhance the LB-ELA Investment Plan by ensuring that our investment of public money will tangibly improve health outcomes and ultimately yield long-term savings through reduced healthcare costs.

I. The Equity Tool Supports Establishing Health Criteria and Analyzing Health Data

Metro's Equity Planning & Evaluation Tool ("Equity Tool")³ creates a framework for how Metro should develop health criteria. Step 1 (Connecting Community Results to Project Outcomes) requires identifying the issues the project intends to address and that the project will have the ability to impact. As part of Step 1, the Metro Board of Directors approved a Vision Statement that looks toward a "[a]n equitable, shared I-710 South Corridor transportation system that ... will foster clean air (zero emissions), **healthy and sustainable** communities, and economic empowerment for all residents, communities and users in the corridor." It also approved a Sustainability Guiding Principle that includes "[a] commitment to sustainability to satisfy and improve basic social, **health**, and economic needs/conditions, both present and future..." and a Community goal to "support thriving communities by enhancing the **health** and quality of life of residents."

Step 2 (Analyze Data) then asks, in part, what data are available, what data are missing, and what data tell us about existing community disparities. While Metro staff have gathered, reviewed and presented a lot of useful data to the CLC, the Equity Working Group, and the Task Force, much of this data has not directly looked at health impacts and outcomes. For example, Metro has provided data on indicators such as diesel PM emissions and tree canopy concentration, but not on health data such as asthma or cancer rates, hospitalizations, or children's health and development.

Finally, Step 4 (Plan for Equitable Outcomes) calls on Metro to ask how the project will ensure equitable outcomes, address root causes, and what performance metrics will help measure and track impacts. Unfortunately, the proposed evaluation criteria are not enough to fully carry out Step 4 because without explicit health component they can only provide a partial picture of a

³ While community engagement is not the primary focus of this letter, Step 3 of the Equity Tool (Engage the Community) is essential and should inform all the other Equity Tool Steps. We continue to encourage Metro to meaningfully engage the CLC and other community members in an accessible way.

project's impacts. Currently health is associated with the "Community" goals and criteria, but none of those criteria measure or track health directly. The project evaluation criteria should include health criteria components that effectively assess the risks and benefits projects may have on communities in the corridor.

II. Metro should establish a health baseline and use health data to analyze the health impacts from proposed projects

Health data must be gathered and analyzed to provide Metro, the CLC, the Task Force, and other stakeholders with a complete picture of the health of corridor communities and the health outcomes that this Investment Plan will help achieve. Metro should consider using Health Impact Assessments⁴ and Health Risk Assessments⁵ to establish a health baseline and support evaluation of potential health impacts and existing health risks.

There are various resources and tools that can aid Metro in this work. For example, [CalEnviroScreen](#) uses census tract data as the basis for its calculations and assessments of environmental hazards present in communities throughout the state of California. To determine the effects of air pollution in a community, it uses data gathered by air monitoring stations set up by the California Air Resources Board (CARB)⁶ as well as information from the Emergency Department and Patient Discharge Datasets from the State of California, Office of Statewide Health Planning and Development (OSHPD) regarding hospital visits to determine how many people in communities throughout the state suffer from asthma.⁷ As exemplified by CalEnviroScreen, using census tract data in conjunction with health and air emissions data from publicly available resources can provide an accurate assessment of the health baseline experienced by a community. Lastly, data concerning life expectancy, risk of cancer and respiratory illness, and other existing health disparities can also aid Metro in assessing how proposed projects can mitigate or worsen cumulative impacts in corridor communities.⁸ CalEPA and OEHHA have studied how exposure to pollutants has disproportionately affected communities of color⁹, and this type of analysis could help inform the development of a health baseline as well as health criteria.

⁴ See the LA County Department of Health, "Introduction to Health Impact Assessments", <http://publichealth.lacounty.gov/chie/HIA.htm>.

⁵ See the California Air Resources Board, "What is a health risk assessment?", <https://ww2.arb.ca.gov/resources/documents/health-risk-assessment> and the California Office of Environmental Health Hazard Assessment, "Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment", <https://oehha.ca.gov/air/cmr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>.

⁶ Jared Blumenfeld, Lauren Zeise, et. al. CalEnviroScreen 4.0 <https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf> at 31.

⁷ *Id.*

⁸ California EPA (CalEPA) and the Office of Environmental Health Hazard Assessment (OEHHA) asserted that, "understanding cumulative impacts means comprehending how ... relationships, including the distribution and properties of environmental pollution, combines to create the potential for adverse health or environmental outcomes." Linda S. Adams & Joan E. Denton, Cumulative Impacts: Building a Scientific Foundation <https://oehha.ca.gov/media/downloads/calenviroscreen/report/cireport123110.pdf> at 5.

⁹ *Id.* at 7.

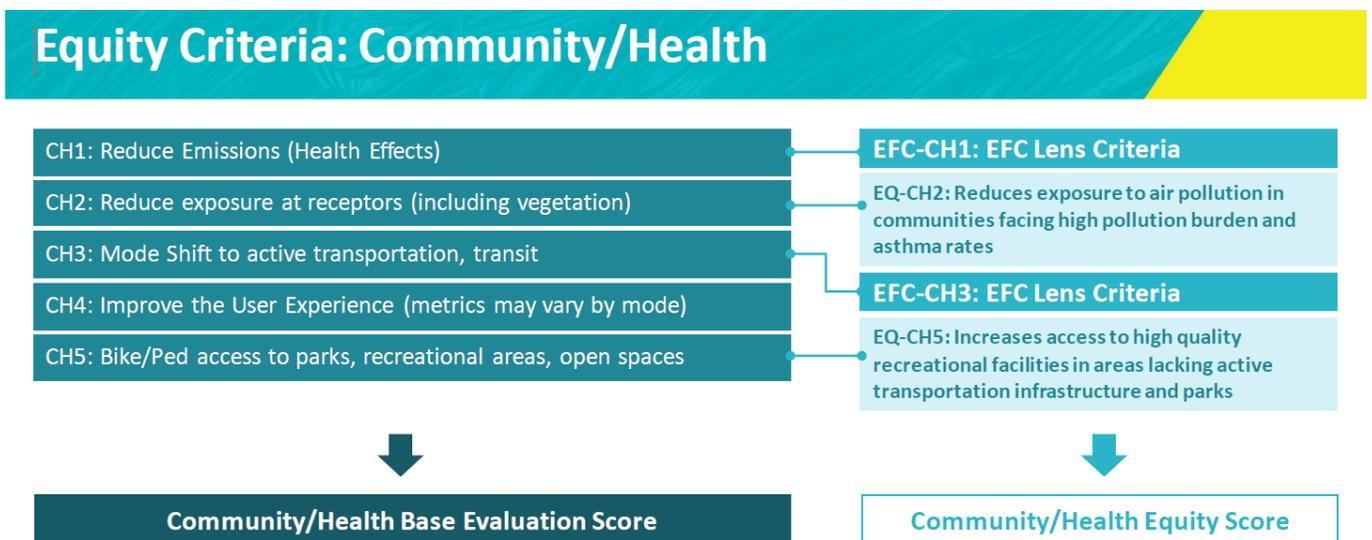
III. Health criteria will make the evaluation criteria and performance metrics more effective

Metro must use health criteria to evaluate proposed projects to be in full accordance with its Guiding Principles, which charge Metro with the responsibility to “satisfy and improve basic social, health, and economic needs/conditions, both present and future.” In order for the LB-ELA Mobility Investment Plan to achieve Metro’s stated commitment to rectify past harm and eliminate disparities while providing fair and just access to opportunity, projects best suited to address disparate health harms should be elevated as a result of the evaluation process. Projects that will exacerbate existing health burdens should be deprioritized or screened out.

Health evaluation criteria will allow Metro to assess the possible negative and positive health impacts of proposed projects and safeguard the communities these projects will be located in. Potential projects that increase traffic, use construction vehicles and equipment that emit diesel exhaust, and create dust and other pollution threaten to exacerbate the compounding health issues experienced by the underserved communities these projects aim to benefit. In the inverse, assessing the positive health benefits of a project, such as reduced rates of asthma and other respiratory conditions and less hospitalizations will give Metro and members of the community empirical evidence about which projects could mitigate and/or improve health disparities.

A. Community Goal Criteria

Metro developed six criteria goals and two guiding principles to measure whether a proposed project will advance those goals and principles. Five criteria were developed for the Community goal:



While the proposed Community criteria provide helpful insights into how a project may indirectly impact health, these should not stand in entirely for health criteria that directly measure and model health impacts. Metro should incorporate health criteria that can quantitatively and qualitatively analyze and measure whether a project will “enhance health” as required by this goal. This could include analyzing health indicators such as:

- Child and adult asthma rates
- Cancer rates (which a health risk assessment would identify)
- Adverse and improved birth outcomes
- Premature deaths
- Rates of cardiovascular, respiratory, and chronic illness
- Mental and brain health
- Respiratory emergency department visits
- Hospital admissions for respiratory and cardiovascular causes
- School absenteeism due to health emergencies

B. Air Quality Goal Criteria

Health is especially relevant in setting air quality evaluation criteria, as exposure to air pollution has a profound correlation to disparate health outcomes. Unfortunately, the evaluation of air quality misses the mark when it comes to health impacts as the three criteria fail to capture the same categories of information or metrics. For example, the summary for the Air Quality Goal describes three criteria to measure how a project might foster local and regional air quality improvements:

	Goal	Equity	Sustainability
AQ1: Reduce Emissions / [EQ - EFCs]			
AQ2: Facilitate clean technologies & lower emissions vehicles			
AQ3: Mode shift to cleaner modes / [EQ - EFCs]			

 **Quantitative:**
TDM: Transportation Demand Management Model
EFC Lens: Equity Focus Community Lens

 **Qualitative:**
QUAL: General qualitative analysis
SA QUAL: Sustainability analysis

While AQ1 (Reduce Emissions) and AQ3 (Mode Shift to Cleaner Modes) use the same qualitative and quantitative metrics to measure equity and sustainability, that is not the case for criteria AQ2 (Facilitate Clean Technologies & Lower Emissions Vehicles) which only focuses on general quantitative metrics that are yet to be defined. This could lead to incongruent results when it comes to comparing projects that purport to champion clean air initiatives. While it will be difficult to discern without more detail how AQ3 (mode shifting to cleaner modes) and AQ2

(facilitating clean technologies) do not overlap, the inconsistency in applying equity and quantitative criteria may result in one project scoring higher than other by promoting new transportation modes without truly assessing health impacts. It should be made clear that proposals alleging “clean technologies and lower emissions vehicles” are also evaluated on the basis of potential health impacts and not automatically scored higher. The distinction can be significant. For example, a proposal for low-NOx trucks which may purport to be lower emissions may still have greater health impacts than battery electric zero-emissions vehicles currently on the market.

C. Sustainability Principle Criteria

The Sustainability evaluation criteria unfortunately also fail to explicitly measure the mitigation of health impacts and instead focuses on infrastructure. While CEHAJ has supported investments in active transportation (including infrastructure) to promote physical activity with corollary health benefits, the Sustainability Guiding Principle, especially as applied to the Air Quality criteria, lacks a true health impact component. Without health impact as an element for evaluation for technology-driven proposals, the evaluation for air quality is incomplete.

- SA1: Provides infrastructure and technology to reduce reliance on polluting and energy-intensive modes of travel and goods movement 
- SA2: Provides infrastructure to promote physical activity and health through active transportation and recreation 
- SA3: Improves climate resilience through infrastructure that addresses the impacts of flooding and increased heat 
- SA4: Supports job creation in, and workforce transitions to, green technology and infrastructure sectors 
- SA5: Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity 

IV. Ignoring calls from community to address health impacts led U.S. EPA to reject the I-710 freeway expansion project

The analysis offered by the United States Environmental Protection Agency (“EPA”) in its March 25, 2021 letter to Metro and Caltrans (“EPA Letter”) is helpful in this context as it highlights the need to engage in a wider scope analysis when it comes to project-specific health impacts. EPA stood with community in recognizing that the I-710 Corridor is an area populated with residents already overburdened by freight and industrial activity and located in a region that has among the worst air quality in the United States.¹⁰ It further recognized that a large percentage of impacted communities are low-income and communities of color that have historically voiced concerns about air quality and health impacts from freight projects and yet continue experiencing a legacy of harm in the form of health disparities and asthma burdens and remain

¹⁰ See Letter from U.S. EPA to California Department of Transportation, District 7 and Los Angeles County Metropolitan Transportation Authority (March 25, 2021), pp.1-2.

vulnerable to increases in particulate matter pollution.¹¹ As part of its conformity analysis, EPA determined that even with air quality mitigation proposals like the former 710 Clean Truck Program, it is essential for a project to demonstrate reduction of polluting sources to a point where they would no longer be an air quality concern.¹²

EPA's analysis may be instructive to this process. CEHAJ has consistently supported investments into zero-emissions technology along the corridor and making its broad deployment a priority for achieving air quality, environment, and economic opportunity goals. Yet, not all purported "clean" technology is created equal when it comes to protecting health. There must be a consistent application of criteria used to evaluate community impacts, air quality, safety, etc. to ensure that the most health-protecting measures are elevated during the initial screening process. It is unclear, for example, whether a project that scores well under AQ2, but does not have the quantitative analysis of Transportation Demand Modelling and the Equity Focus Community Lens, will receive an advantage or a handicap during the evaluation process. Without a qualitative sustainability and equity analysis that explicitly examines health impacts, the evaluation may result in an incomplete picture of the project's benefits or potential harms.

In conclusion, we ask Metro staff and its consultants to develop health criteria to apply as part of the project evaluation process with input from the Community Leadership Community. Developing health criteria alongside community members will help us create a stronger Investment Plan and achieve our shared Goals and Vision for this corridor.

Sincerely,

Laura Cortez
East Yard Communities for Environmental Justice

Sylvia Betancourt
Long Beach Alliance for Children with Asthma

Dilia Ortega
Ambar Rivera
Communities for a Better Environment

Fernando Gaytan
Earthjustice

Natalia Ospina
Najah Louis
Natural Resources Defense Council

Cc:

Metro Board of Directors
Metro CEO, Stephanie Wiggins
California Department of Transportation, District 7, Acting Director Gloria Roberts

¹¹ *Id.*, p. 2.

¹² *Id.*, p. 6.

Summary of Health Considerations in LB-ELA Corridor Plan Evaluation Criteria

Context

Communities within the Long Beach-East Los Angeles (LB-ELA) Corridor face significant health disparities (such as high asthma and cardiovascular disease rates) and experience disproportionate pollution burdens (such as PM2.5 and Diesel PM emissions) compared with other communities in Los Angeles County, as was documented through health and environmental justice screening tools such as CalEnviroScreen, CA Healthy Places Index, the Center for Disease Control and Prevention (CDC) Environmental Justice Index Explorer, and a number of studies related to vehicular pollution and health outcomes surrounding the I-710 freeway and throughout the region.^{1,2,3,4} In addition to the high overall health burdens facing the LB-ELA Corridor relative to the County and State as a whole, health burdens within the corridor disproportionately impact people of color and low-income populations.

These health disparities have been consistently elevated by Task Force, Working Group, Community Leadership Committee (CLC), and community members throughout the Task Force's planning process, and have guided staff's technical work in conducting existing conditions research and developing the Initial List of Projects and Programs and Evaluation Criteria. While health criteria have been discussed and incorporated in the context of every goal, "health" is mentioned by name specifically within the Task Force's *Community* goal and *Sustainability* guiding principle as follows:

Community: *"Support thriving communities by enhancing the health and quality of life of residents."*

Sustainability: *"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. A commitment to sustainability to satisfy and improve basic social, health, and economic needs/conditions, both present and future, and the responsible use and stewardship of the environment, all while maintaining or improving the well-being of the environment on which life depends."*

In developing the evaluation criteria, staff carefully considered the most effective way to evaluate Project Outcomes that would support the Task Force's desired Community Results as identified in the Vision, Goals, and Guiding Principles. A **Community Result**, as defined in Metro's Pilot Equity Planning and Evaluation Tool (EPET), is "the community level condition of well-being we would like to achieve. It lacks disparities based on race, income, ability, or other social demographic." A **Project Outcome** is "a clearly defined future state of being at the program, local, or agency level resulting from the proposed action that ultimately supports the community result.

¹ [HIA-I710-Air-Quality-Plan.pdf \(humanimpact.org\)](#)

² [Community Health in the I-710 Corridor – Neighborhood Data for Social Change \(myneighborhooddata.org\)](#)

³ [PSR-20-19 Boeing Final-report.pdf \(metrans.org\)](#)

⁴ [Improving Environmental Justice and Mobility in Southeast Los Angeles \(metrans.org\)](#)

Literature and Research

The CDC and World Health Organization (WHO) recommend the Social Determinants of Health Framework as an approach to understand public health holistically. They recognize that many overlapping factors (including genetics, behavior, environmental and physical influences, medical care and social factors) contribute to community health outcomes.⁵ It is therefore challenging to quantify, for instance, how a transportation project, or group of projects (as in the case of those being evaluated as part of the investment plan), will directly improve or worsen these outcomes, such as rates of asthma or cardiovascular disease.

The Government Alliance on Race and Equity (GARE) developed a Results Based Accountability framework to support “thinking and taking action that communities and government can use to achieve meaningful improvements, eliminate racial inequities and lift up outcomes for all”⁶. They emphasize the need to clearly delineate between desired end conditions (Community Results) and direct achievements through an action (Project Outcomes). The EPET’s distinction between Community Results and Project Outcomes is based on this guidance.

The [CDC Recommendations for Improving Health through Transportation Policy](#) highlight health-related objectives that can be achieved through transportation policy and design (Project Outcomes), based in research that ties these objectives to public health outcomes (Community Results). According to the CDC, transportation policy has the opportunity to:

- Reduce injuries associated with motor vehicle crashes
- Encourage healthy community design
- Promote safe and convenient opportunities for physical activity by supporting active transportation infrastructure
- Reduce human exposure to air pollution and adverse health impacts associated with these pollutants
- Ensure that all people have access to safe, healthy, convenient, and affordable transportation⁷

The US Department of Transportation (US DOT) provides [Literature and Resources](#) detailing the connections between transportation and public health through these five primary pathways:

- Active transportation — Transportation agencies and their partners can help people lead more active lifestyles by giving them options for getting to places they need to go without driving. They can also reduce the distance between destinations people travel to satisfy daily needs.
- Safety — Motor vehicle crashes are one of the leading causes of death in the United States. By providing transportation options and improving roadway facilities, transportation agencies can reduce the incidence of motor vehicle crashes.

⁵ [Social Determinants of Health at CDC | About | CDC](#)

⁶ [Racial Equity Action Plans - A How to Manual \(ca.gov\)](#)

⁷ [CDC - CDC Transportation Recommendations](#)

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- Cleaner air — Air pollution has been linked with heart disease and respiratory illnesses, including asthma. Improving transportation system efficiency and supporting cleaner vehicles and fuels can improve air quality.
- Connectivity — Providing a well-connected, multi-modal transportation network increases people’s ability to access destinations that can influence their health and well-being, such as jobs, health care services, and parks.
- Equity — Negative health effects related to the transportation system often fall hardest on more vulnerable members of the community, such as low-income residents, communities of color, children, and older adults.⁸

Given existing disparities and associated concerns around air quality and pollution-related health impacts with the LB-ELA corridor, staff also consulted recent research from the South Coast Air Quality Management District (SCAQMD) to develop evaluation criteria and performance metrics to measure primary health impact pollutants.

[SCAQMD’s 2021 MATES V report](#) identifies Diesel Particulate Matter (DPM) as the lead evaluation indicator for air toxic impacts, stating: “While there has been substantial improvement in air quality regarding air toxics emissions and exposures, the health risks continue to be high, especially near sources of toxic emissions such as the ports and transportation corridors. Diesel PM, while also substantially reduced from past MATES, continues to dominate the overall cancer risk from air toxics.” (2021 MATES V Final Report)⁹

[SCAQMD’s 2022 AQMP Appendix I](#) identifies Particulate Matter 2.5 (PM2.5) as the lead evaluation indicator for criteria pollutant mortality and sickness (including asthma) impacts, stating: “Several studies have found correlations between elevated ambient particulate matter levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, COPD exacerbation, combined respiratory-diseases and number of hospital admissions in different parts of the United States and in various areas around the world. Higher levels of PM2.5 have also been related to increased mortality due to cardiovascular or respiratory diseases, hospital admissions for acute respiratory conditions, school absences, lost workdays, a decrease in respiratory function in children, and increased medication use in children and adults with asthma.”¹⁰ The LB-ELA corridor area is also a non-attainment area for PM2.5. Mobile sources are major sources of direct PM2.5 emissions (exhaust, as well as brake/tire wear and entrained road dust).

Together, the literature and research discussed above informed the development of health-related criteria for the LB-ELA Corridor Investment Plan evaluation, including the identification of a broad range of social, economic, and environmental factors that are known to improve community health; and using specific indicators known to measure changes in air quality, which is directly tied to cardiovascular and respiratory disease.

⁸ [Literature and Resources | US Department of Transportation](#)

⁹ <http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf?sfvrsn=6>

¹⁰ <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/appendix-i.pdf?sfvrsn=6>

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Health-Related Evaluation Criteria Approach

The evaluation criteria are primarily categorized under the Task Force’s identified Goals and Guiding Principles. However, criteria related to each goal also relate to one or more of the following health-related project outcomes (“Project Health Outcomes”), which contribute to a variety of health-related community results as discussed in literature from the CDC, U.S. DOT, and SCAQMD (see Figure 1).

- 1) Exposure to Health Impact Pollutants
- 2) Conditions for Physical Activity
- 3) Conditions for Roadway Safety
- 4) Exposure to Extreme Heat
- 5) Access to Healthcare, Healthy Food, & Opportunities

Summary of Health-Related Evaluation Criteria

Below is a summary health-related evaluation criteria, organized by categories based on the LB-ELA Corridor Investment Plan adopted Goals (air quality, community benefits, mobility, safety, environment, opportunity and prosperity) and Guiding Principles (equity and sustainability).

Air Quality Benefits

See CH1, CH2 - Health-related emissions and exposure criteria are listed under ‘Community Benefits (includes Health)’ to account for distinction between primary regional non-attainment pollutants (AQ1) and primary health impact pollutants (CH1).

Community Benefits (includes health)

CH1: Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)

CH2: Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)

CH3: Mode Shift to active transportation, transit

CH5: Bike/Ped Access to parks, recreational areas, or open spaces

Mobility Benefits

See CH3, CH5 - Health-related mobility criteria are included under Community Benefits to account for distinction between overall mobility conditions and conditions for health-supportive travel modes.

Safety Benefits

SF1: Protections for Bike / Users (bike class)

SF2: Traffic Protections (bike/ped)

SF4: Includes Safety Features

SF6: Traffic Calming Features

Environment Benefits

EN6: Reduce Heat Island Effect; Provide Cooling Features for Users

Opportunity/Prosperity Benefits

OP1: Access to jobs

OP4: Work Force Development

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OP5: Potential Targeted Hire, New Construction Jobs

OP6: Access to Quality of Life amenities (grocery stores, healthcare services, schools)

OP7: Access to open space, recreation and parks, LA river, etc.

Equity Benefits

See associated criteria from Goal categories

Sustainability Benefits

SA1: Reduces reliance on polluting and energy-intensive modes of travel and goods movement

SA2: Promotes physical activity and health through active transportation and recreation

SA3: Improves climate resilience through mitigation of flooding and extreme heat impacts

SA4: Supports job creation in, and workforce transitions to green technology and infrastructure sectors

SA5: Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity

Project Concerns

CON4: Potential for Traffic Diversion / Emission Shifting

CON5: Potential for New Hot Spots (Congestion, AQ, Ped/Bike Safety)

CON7: Potential for VMT Increases

Consideration of Health Impact Assessments

Health Impact Assessments (HIAs) are sometimes used by planning agencies to conduct a more precise evaluation of health impacts from projects or programs that fall outside traditional public health arenas, such as transportation and land use.¹¹ Some members of the Task Force have encouraged Metro to conduct an HIA for the Initial List of Projects and Programs to establish criteria and analyze potential impacts for direct health outcomes (such as rates of asthma, cardiovascular disease, cancer, premature deaths, birth outcomes). In consideration of this recommendation, staff has reviewed HIA guidance from the CDC and County of LA, along with prior HIA documents produced for comparable transportation planning efforts such as the [City of LA's Mobility Plan 2035](#) and the initial [I-710 Corridor Project Health Impact Assessment](#) prepared as part of the Gateway Cities Air Quality Action Plan.

Review of guidance and prior HIA documentation supported staff's conclusion that an HIA-level evaluation is inappropriate for this early stage of the LB-ELA Corridor Plan process, requiring a much more detailed project definition to achieve meaningful outputs given the complexity of overlapping risk exposures, and social, economic, and environmental risk modifiers. Furthermore, the evaluation criteria list currently integrates many of the health-related indicators (project outcomes) that an HIA uses to predict health outcomes. Individual projects and programs that continue into the investment plan will eventually be subject to environmental review with more detailed analyses as part of their planning and design processes.

Staff will continue to elevate health in the Task Force process and commits to incorporating health in future phases of the Investment Plan development and implementation. Staff has presented the Task

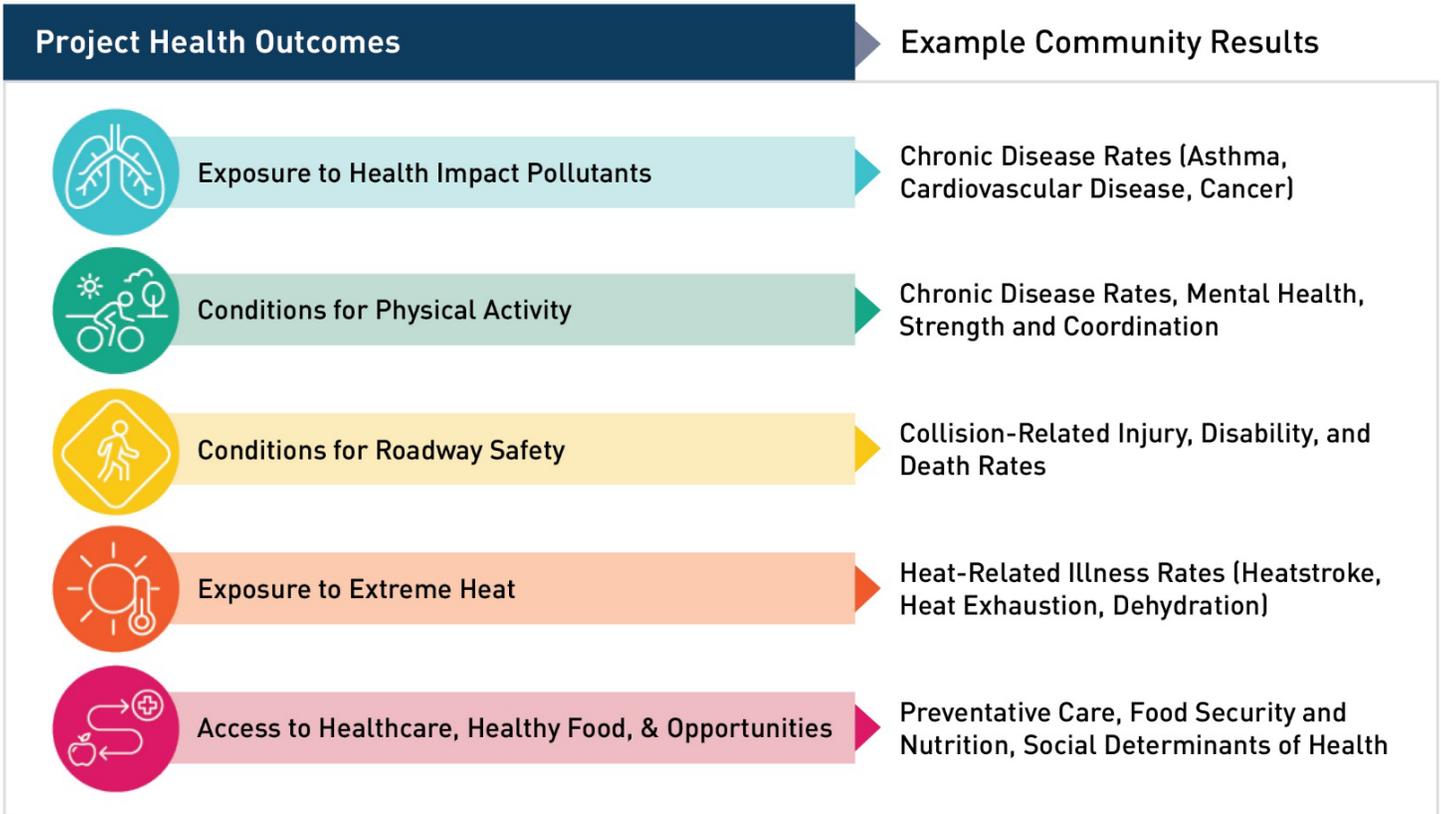
¹¹ [CDC - Healthy Places - Health impact assessment \(HIA\)](#)

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Force with the following proposals for ongoing health-related efforts to be developed in partnership with Task Force, Working Group, and CLC members:

- Development of a Health Equity Dashboard to provide ongoing health-related data in the LB-ELA Corridor (Example: [Marin County Health Equity and Social Justice Dashboard](#)).
- Development of community health-focused project design and implementation guidelines to be incorporated in the Investment Plan (Example: [Riverside Healthy Development Checklist](#))
- Collaboration with other departments, agencies, and organizations who are working on evaluating and improving health equity in the LB-ELA Corridor area

Figure 1



Evaluation Criteria with Associated Project Health Outcomes

CH1	Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)		OP6	Access to Quality of Life amenities (grocery stores, healthcare services, schools)	
CH2	Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)		OP7	Access to open space, recreation and parks, LA river, etc.	
CH3	Mode Shift to active transportation, transit	 	SA1	Reduces reliance on polluting and energy-intensive modes of travel and goods movement	 
CH5	Bike/Ped Access to parks, recreational areas, or open spaces		SA2	Promotes physical activity and health through active transportation and recreation	
SF1	Protections for Bike / Users (bike class)	 	SA3	Improves climate resilience through mitigation of flooding and extreme heat impacts	
SF2	Traffic Protections (bike/ped)	 	SA4	Supports job creation in, and workforce transitions to green technology and infrastructure sectors	
SF4	Includes Safety Features		SA5	Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity	
SF6	Traffic Calming Features		CON4	Potential for Traffic Diversion / Emission Shifting	 
EN6	Reduce Heat Island Effect; Provide Cooling Features for Users		CON5	Potential for New Hot Spots (Congestion, AQ, Ped/Bike Safety)	 
OP1	Access to jobs		CON7	Potential for VMT Increases	 
OP4	Work Force Development				
OP5	Potential Targeted Hire, New Construction Jobs				

Grant Awards and Activities for LB-ELA Corridor Projects

While the Task Force is developing the draft Investment Plan for Board consideration in November 2023, staff have been working with local jurisdictions and partner agencies to support grant activities for projects within the LB-ELA Corridor to take advantage of the unprecedented levels of funding generated through the passage of the Bipartisan Infrastructure Law (BIL)/Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) layered on top of existing, ongoing discretionary grant programs offered by the state through the Senate Bill 1 programs administered by the California Transportation Commission (CTC) and by other agencies focused on advancing zero emission energy and technology.

At the May 2022 Board meeting, the Metro Board, recognizing these funding opportunities could yield potential investment in the LB-ELA Corridor in 2022 and early 2023, approved Motion #9 by Directors Hahn, Solis, Mitchell, and Dutra (Attachment C) to initiate what ultimately became the Pre-Investment Plan Opportunity (PIPO) that was developed by staff through the Task Force process. Staff also worked with other LB-ELA Corridor agencies to support their grant applications submitted in the same timeframe.

Since May 2022, thanks to the leadership of the Board and the many Task Force stakeholders, \$116.24 million has been awarded to projects within the LB-ELA Corridor. An additional \$ 202.344 million in a multimodal array of projects is recommended for state Senate Bill (SB) 1 funding by the CTC at its June 28-29, 2023, meeting. Included in these recommended awards are three PIPO projects, two of which were provided local funding by the Board through Motion #9 (Attachment C) and the third of which was provided technical assistance and grant support by Metro staff.

Staff will continue to evaluate opportunities to seek grant funding for projects that arise through the remainder of 2023, and report to the Board with such opportunities when timely.

Grant Awards for LB-ELA Corridor Projects

Outside of the PIPO and overall Metro grant program, several projects within the LB-ELA Corridor have successfully obtained grant funding in 2022 and early 2023 from highly competitive federal grant programs.

- In February 2023, the **City of Long Beach** secured a \$30 million USDOT Reconnecting Communities Pilot (RCP) Grant Program award to reconfigure West Shoreline Drive (the initial phase of the Shoemaker Bridge replacement project). The award represented 20% of all funds available nationally for capital projects from the first cycle of this program. This \$69 million project will remove a roadway barrier and improve access and connectivity between Downtown Long Beach and public open space, create a new bicycle path and pedestrian amenities, and divert highway traffic from residential streets to major roads. The

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federal grant will fund planning, design, demolition, and reconstruction of street grids, parks, and other infrastructure to reconnect communities divided by transportation infrastructure. This project shares scope with the SCCP application submitted by Metro.

- In October 2022, the **Port of Long Beach** received a \$30.14 million grant from the USDOT Maritime Administration's FY2022 Port Infrastructure Development Program for the Middle Harbor Terminal Zero Emission Conversion Project. This project will replace diesel yard tractors with approximately 60 electric yard tractors and construct electric equipment charging infrastructure with software to enhance energy efficiency.

Additionally, \$56.1 million in State Active Transportation Program Grants were awarded to the following LB-ELA Corridor jurisdictions:

- **Bell Gardens** – Bell Gardens Complete Streets Project Phase 2 (\$3.0M)
- **Commerce** – Slauson Avenue Corridor & Citywide Pedestrian, Bike, Transit Improvements (\$2.1M)
- **Long Beach** – Mid-City Bicycle and Pedestrian Connections (\$8.8M)
- **City of Los Angeles** – Wilmington Safe Streets: A People-First Approach (\$32.3M)
- **Los Angeles County** – Metro A Line Connections for Unincorporated Los Angeles County (\$9.9M)

Grant Award Recommendations

In addition to these projects awarded funding at the state level, an additional 17 LB-ELA Corridor projects are recommended for **\$202.344 million** in funding by the CTC and will be considered at the Commission's June 28-29, 2023, meeting.

The Regional/MPO portion of the State Active Transportation Program has recommended 13 LB-ELA Corridor projects (11 for Implementation and two [2] for Planning) for a total of **\$74.626 million** in CTC grant awards. These projects are in Carson (2), Cudahy, Downey, Huntington Park (the PIPO project), Los Angeles, Maywood, Paramount, Signal Hill, South Gate (2) and unincorporated LA County (2).

On June 8, 2023, CTC staff released its recommendations for grant awards for three major SB 1 program – the Trade Corridor Enhancement Program (TCEP), the Solutions for Congested Corridors Program (SCCP), and the Local Partnership Program-Competitive (LPP-C). An additional four projects from the LB-ELA Corridor were recommended for a total of **\$127.718 million** in funding from these programs. These recommended projects include two from Metro's PIPO – the I-710 Integrated Corridor Management project and the Southeast Los Angeles Transit Improvements Project – that are recommended for a \$27.84 million award from TCEP and a \$14.50 million award from SCCP, respectively. Additionally, CTC staff is recommending \$70.442 million for the Port of Long Beach's America's *Green Port Gateway: Pier B Early Rail*

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project and \$14.936 million for the Port of Los Angeles' *Maritime Support Facility Access – Terminal Island* project.

Collectively, these grant awards recommended for CTC approval would support projects that advance the LB-ELA Task Force's Vision, Goals, and Guiding Principles, making investments in local ATP projects to support greater pedestrian and bicycle travel, cleaner technology and greater use of rail at the Ports, improvements for local transit usage, and more efficient and safer travel on I-710 with fewer impacts on local communities due to accidents and freeway closures.

Pending Grant Awards

The Ports of Long Beach and Los Angeles are also awaiting results from the state's Port and Freight Infrastructure Program, which is a one-time funding source to help ease supply chain congestion and increase the capacity to move goods in California. The Port of Long Beach submitted a \$914.9 million request for its System-Wide Investment in Freight Transport (SWIFT) to help support its \$2.1 billion comprehensive approach to modernizing the movement of goods through the port complex. The Port of Los Angeles submitted five projects totaling \$433.5 million that are designed to reduce emissions, improve vital road and rail access, enhance community access to pedestrian and bicycling infrastructure, and provide greater operational efficiencies. Awards are expected to be announced in June 2023.

PIPO Update

With local match funding secured through Board action in September 2022 (Attachment A), staff submitted three grants and provided technical assistance for a fourth grant for projects identified through the PIPO process that had broad Task Force support.

These grants, and their respective status, are as follows:

- In October 2022, Metro submitted an application for the Humphreys Avenue I-710 Bicycle / Pedestrian Overpass Project for the highly competitive federal Reconnecting Communities Pilot grant program. Metro requested \$8.7 million for the project. Unfortunately, the project was not selected for funding in this program's first cycle, although another Metro-endorsed project, the City of Long Beach's Shoreline Drive Realignment project, was selected and received a major award from this program's first cycle. Staff is reviewing a potential resubmission of this project (potentially augmented in scope) for the same funding program in 2023.
- In November 2022, Metro submitted an application for the I-710 Integrated Corridor Management (ICM) project for SB 1 TCEP funding. Metro requested \$27.84 million for this project which has a total cost estimated at \$40.20 million. **CTC staff have recommended this project receive a full award.**

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- In November 2022, Metro submitted an application for the Southeast LA Transit Improvements Project for the SB 1 LPP-C program. Metro requested \$14.50 million for the overall project which has a total cost estimated at \$31.13 million. **CTC staff have recommended this project receive a full award.**
- In June 2022, the City of Huntington Park submitted an application for the Safe Routes for Seniors and Students project for the CTC's Active Transportation Program (ATP). Huntington Park requested \$4.26 million for the project which has a total cost estimated at \$4.76 million. Metro provided grant assistance to Huntington Park to help the city develop a competitive application. **SCAG has recommended this project receive a full award from the CTC.**

Thanks to support from the Board, the PIPO is in position to receive grant awards totaling **\$46.60 million** for three projects in the LB-ELA Corridor.

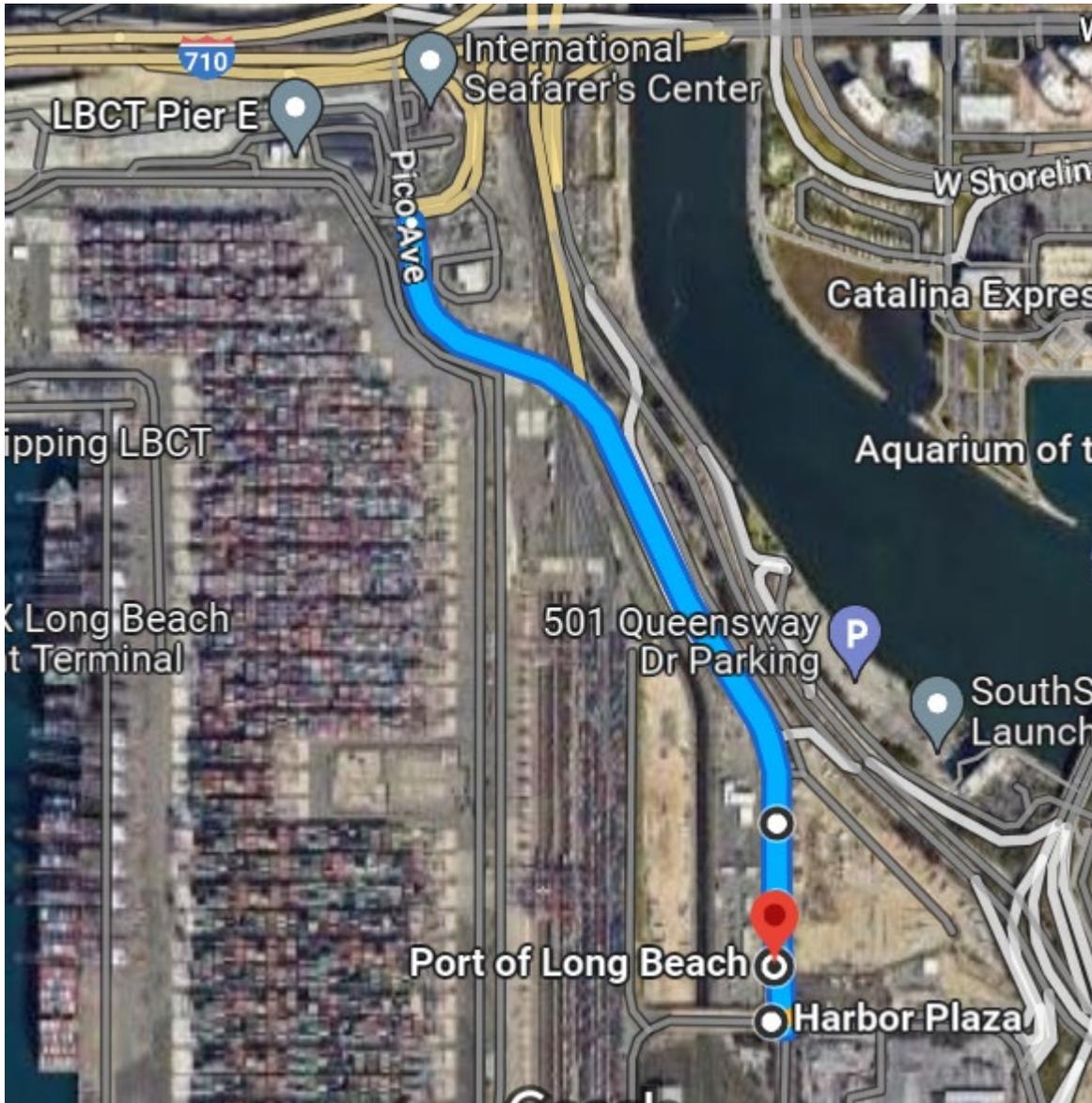
Additional Metro grant activities for LB-ELA Corridor Projects

Following Board action in September 2022, staff also finalized its priority applications for the SB 1 SCCP after board approval of Metro's first Comprehensive Multimodal Corridor Plan (CMCP) developed for the I-405 corridor. One of the three projects identified by staff from the CMCP that would be competitive for the SCCP was the Shoreline Drive Gateway: Corridor Realignment & Community Connections Program, located in and to be implemented by the City of Long Beach. Metro requested \$60 million for the project which has a total cost estimated at \$69.2 million. This project was not recommended for funding by CTC staff, although it did receive a \$30 million award from the federal RCP grant program that will implement much of the SCCP application's scope.

Directions to LBCT

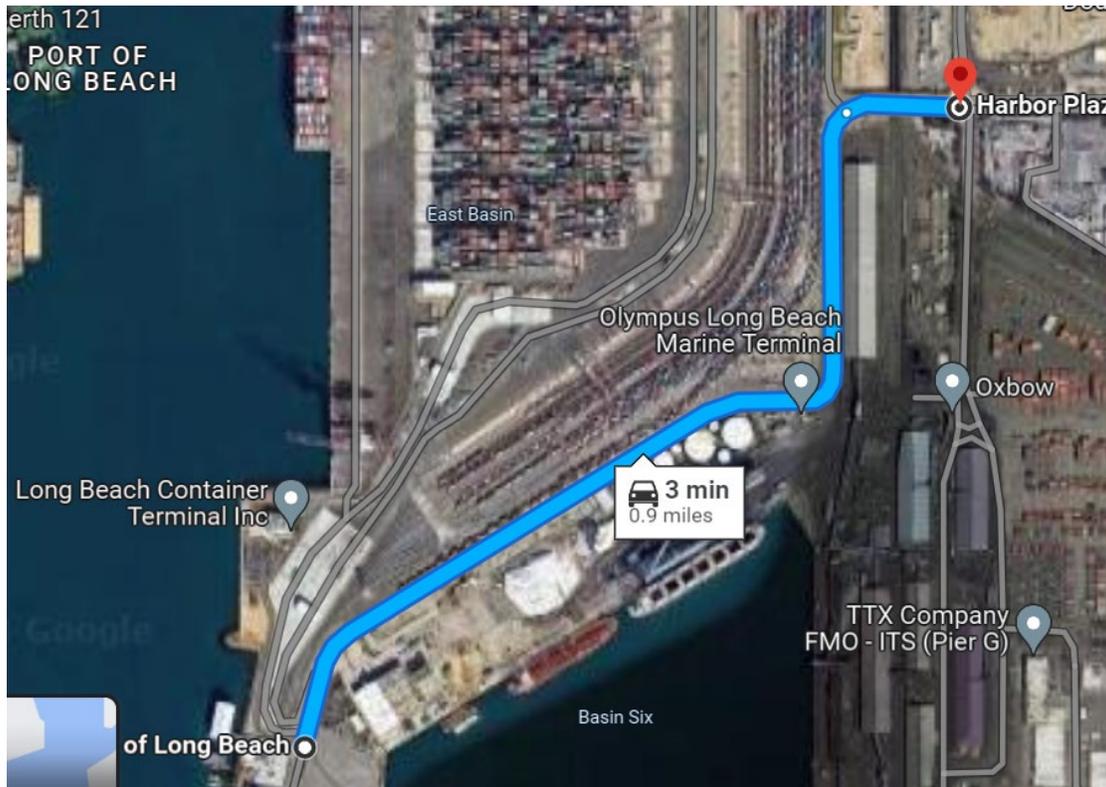
The April 18 I-710 bus tour begins with an 11 a.m. meeting and lunch at Long Beach Container Terminal, 1171 Pier F Ave., Long Beach, CA. To get there, use these directions.

Exit I-710 South at PICO AVE., in Long Beach. Drive south on PICO AVE. to HARBOR PLAZA.

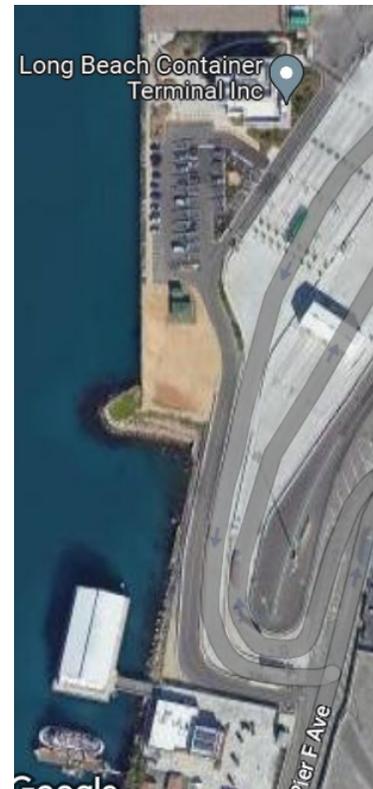


Turn RIGHT on HARBOR PLAZA. Turn LEFT at PIER F AVE.

Stay on PIER F AVE. for 0.8 miles until you see the sign for the Long Beach Container Terminal Administration Building.



Turn RIGHT into the LBCT Administration Building parking lot.



Tour Itinerary

- 11:00 a.m. Long Beach Container Terminal: Welcome, introductions, pre-tour briefing, and lunch
- 12:15 p.m. Board bus and drive through downtown Long Beach
- 12:35 p.m. Pacific Coast Highway & I-710 Interchange: Long Beach Alliance for Children With Asthma, Communities for a Better Environment, and Coalition for a Safe Future
- 1:05 p.m. Drive north on I-710
- 1:25 p.m. Riverfront Park: Comité Pro Uno and USC Environmental Health
- 1:45 p.m. Drive to Bandini Park
- 2:00 p.m. Bandini Park: Angelo Logan, East Yard Communities for Environmental Justice and Liberty Hill Foundation
- 2:20 p.m. Drive to Hobart Rail Yard
- 2:30 p.m. Hobart Rail Yard
- 2:45 p.m. Drive to Long Beach Container Terminal: Discuss themes, lessons, issues, and action items.
- 3:15 p.m. Long Beach Container Terminal: Post-tour debrief
- 4:00 p.m. Tour of Long Beach Container Terminal (~1 hour, optional)

710 Freeway Corridor Tour Map



Ground Rules

Chatham House Rule

- You can use what you learn.
- You cannot tell others who said it or their affiliation.

Kindergarten Rules

- Be nice. Have fun. Enjoy our time together.
- Make friends. Meet people. Network.
- Learn. Listen. Share.

Tour Participants

Name	Title	Affiliation
Betancourt, Silvia	Project Manager	Long Beach Alliance for Children With Asthma
Cano, Michael	Deputy Executive Officer	L.A. Metro
Chaves, Ernesto	Director, Highway Program	L.A. Metro
Chavez, Chris	Deputy Policy Director	Coalition for Clean Air
Cisco, Oscar	Field Representative	Office of Senator Lena Gonzalez
Contreras, Charlene	Branch Director	Los Angeles County Department of Public Health
Cylear Dodds, KeAndra	Executive Officer, Equity and Race	L.A. Metro
Dau-Ngo, Theresa	Director of Port Planning	Port of Long Beach
De La Loza, Jim	Chief Planning Officer	L.A. Metro
Dutra, Fernando	Councilmember	City of Whittier
Eager, Lee Ann	Chair	California Transportation Commission
Ganata, Jennifer	Senior Staff Attorney	Communities for a Better Environment
Gaytan, Fernando	Senior Attorney	Earthjustice
Gomez, Viviana	Transportation Deputy	Office of Supervisor Janice Hahn
Johnston, Jill	Associate Professor	USC Environmental Health
Kamai, Elizabeth	Postdoctoral Research Associate	USC Environmental Health
Katzenstein, Aaron	Deputy Executive Officer	South Coast Air Quality Management District
Klipp, Luke	Senior Transportation Deputy	Office of Supervisor Janice Hahn
Logan, Angelo	Senior Director of Environmental Justice	Liberty Hill Foundation
Louis, Najah	Legal Fellow	Natural Resources Defense Council
Lugo, Adonia	Commissioner	California Transportation Commission
Lyou, Joe	Commissioner	California Transportation Commission
Macias, Karina	Senior Deputy, Transportation & Infrastructure	Office of Supervisor Hilda Solis
Marquez, Jesse	Executive Director	Coalition for a Safe Environment
Marquez, Paul	Deputy District Director	Caltrans District 7
Martinez, Michele	Commissioner	California Transportation Commission
Newman, Jeff	Chief of Staff	Caltrans District 7
Norton, Hilary	Commissioner	California Transportation Commission
Omishakin, Toks	Secretary	California State Transportation Agency
Ortega, Dilia	Youth Program Coordinator	Communities for a Better Environment
Ospina, Natalia	Staff Attorney	Natural Resources Defense Council
Peralta, Elda	Community Organizer	Comite Pro Uno
Pfeffer, Nancy	Executive Director	Gateway Cities Council of Governments
Pulido, Ricardo	Volunteer	Coalition for a Safe Environment
Rees, Sarah	Deputy Executive Officer	South Coast Air Quality Management District
Ritter, Kimberly	Manager of Economics & Funding	Port of Long Beach
Roberts, Gloria	Acting Director	Caltrans District 7
Tavares, Tony	Director	Caltrans
Taylor, Tanisha	Interim Executive Director	California Transportation Commission
Weissman, Sharon	President	Port of Long Beach Board of Harbor Commissioners

Community and Environmental Organizations Participating in the I-710 Bus Tour

April 18, 2023

Coalition for a Safe Environment (CFASE)

The Coalition for A Safe Environment (CFASE) is a non-profit community-based environmental justice, public health, public safety and community sustainability advocacy organization. CFASE was established in in April 2001 in the City of Los Angeles Latino community of Wilmington, CA. CFASE is involved in community organizing, family assistance, public education, public health care, public safety, leadership development, community empowerment, urban planning, community sustainability, economic development and public policy participation. CFASE conducts public health surveys, distributes public information, prepares research reports, evaluates environmental impact reports, investigates environmental incidents, prepares public comment documents, attends governmental agency public hearings, private business and community organization meetings. CFASE researches, supports and recommends the use of the zero emission transportation technologies, maximum achievable pollution control technologies, clean fuels, renewable energy sources, efficiency technologies, waste management and recycling programs. CFASE believes that we must plan and invest in a future sustainable community environment and balance the need for economic growth and the public's best interests.

Coalition for Clean Air (CCA)

The Coalition for Clean Air (CCA) believes everyone has the right to breathe clean air. Established in 1971, CCA is California's only statewide organization exclusively dedicated to protecting public health, improving air quality, and preventing climate change. CCA advocates for innovative policies and engages in outreach and educational activities. CCA priorities include reducing air pollution from California's freight industry, ensuring that climate investments benefit disadvantaged communities, and promoting new clean air technologies. CCA's annual Clean Air Day event gives every Californian an opportunity to take specific actions to fight air pollution and participate in regional community-based events. CCA works to make sure every breath you take is a breath of clean air.

Coalition for Environmental Health and Justice (CEHAJ)

The Coalition for Environmental Health and Justice (CEHAJ) is a coalition of organizations, associations, and community groups working to achieve environmental justice, improving air quality, community health and overall quality of life for residents living in the I-710 corridor in Southern California. CEHAJ is committed to ensuring the right of community residents to be part of the decision-making process as it relates to proposed expansion projects for the I-710 freeway. CEHAJ members include Communities for a Better Environment, East Yard Communities for Environmental Justice, Earthjustice, Legal Aid Foundation of Los Angeles, Long Beach Alliance for Children with Asthma, Long Beach Residents Empowered, Natural Resources Defense Council, and the Urban & Environmental Policy Institute (UEPI) at Occidental College.

Comité Pro Uno

Comité Pro Uno (CPU) was founded in 1997 by Felipe Aguirre, as a community-based non-profit organization located in Maywood, California. CPU developed out of a grassroots effort lead by Aguirre focused on immigrant rights and environmental justice issues in the City of Maywood, and surrounding communities of Southeastern Los Angeles, California.

Communities for a Better Environment (CBE)

Founded in 1978, Communities for a Better Environment (CBE) is one of the preeminent environmental justice organizations in the nation. The mission of CBE is to build people's power in California's communities of color and low income communities to achieve environmental health and justice by preventing and reducing pollution and building green, healthy and sustainable communities and environments. CBE provides residents in heavily polluted urban communities in California with organizing skills, leadership training and legal, scientific and technical assistance, so that they can successfully confront threats to their health and well-being.

Earthjustice

Earthjustice is the premier nonprofit public interest environmental law organization. Earthjustice wields the power of law and the strength of partnership to protect people's health, to preserve magnificent places and wildlife, to advance clean energy, and to combat climate change. Earthjustice is here because the earth needs a good lawyer.

East Yard Communities for Environmental Justice

East Yard Communities for Environmental Justice (EYCEJ) is a community-based organization that works to facilitate self-advocates in East Los Angeles, Southeast Los Angeles and Long Beach. By providing workshops and trainings, EYCEJ prepares community members to engage in the decision-making processes that directly impact their health and quality of life.

Liberty Hill Foundation

Liberty Hill Foundation is a laboratory for social change philanthropy. Liberty Hill Foundation leverages the power of community organizers, donor activists, and allies to advance social justice through strategic investment in grants, leadership training, and campaigns.

Long Beach Alliance for Children with Asthma (LBACA)

The Long Beach Alliance for Children with Asthma (LBACA) is focused on raising community awareness and reducing hospitalizations and school absenteeism due to asthma. LBACA uses a coalition approach to include perspectives from parents, doctors, and school nurses, working with the Miller Children's Hospital, the Long Beach Department of Health and Human Services, the Long Beach Unified School District, legal aid, and managed care organizations. The program is funded through grants from the Robert Wood Johnson Foundation's Allies Against Asthma program, the California Endowment's Community Action to Fight Asthma Program, and the South Coast Air Quality Management District's British Petroleum Settlement fund.

Natural Resources Defense Council

NRDC works to safeguard the earth—its people, its plants and animals, and the natural systems on which all life depends. NRDC combines the power of more than 3 million members and online activists with the expertise of some 700 scientists, lawyers, and other environmental specialists to protect the planet's wildlife and wild places and to ensure the rights of all people to clean air, clean water, and healthy communities.

Long Beach-East Los Angeles Corridor Task Force Update

Planning and Programming Committee

Item #11

File #2023-0019



Metro

Timeline / Grant Awards and Activities



Awards: To date, **\$116.24 M** awarded to LB-ELA projects since May 2022

- \$30.0 M – Reconnecting Communities – W. Shoreline Drive (Long Beach)
- \$30.14 M – Port Infrastructure Development Prog. – Mid. Harbor Terminal ZE Conversion Project
- \$56.1 M – State Active Transportation Program (ATP) – Five projects awarded

Recommended Awards: **\$202.344 M** recommended for CTC approval (June 28-29, 2023)

- \$74.626 M – State ATP (MPO) – 12 projects (11 Implementation / 2 Planning)*
- \$127.718 M – CTC SB-1 Programs (TCEP/LPP-C) – I-710 ICM*/SELATIP*/POLB Pier B/POLA Terminal Island

POLB/POLA seeking state Port & Freight Infrastructure Program funds – **\$840 M for Southern California**

Online Public Engagement: Social Pinpoint and Survey

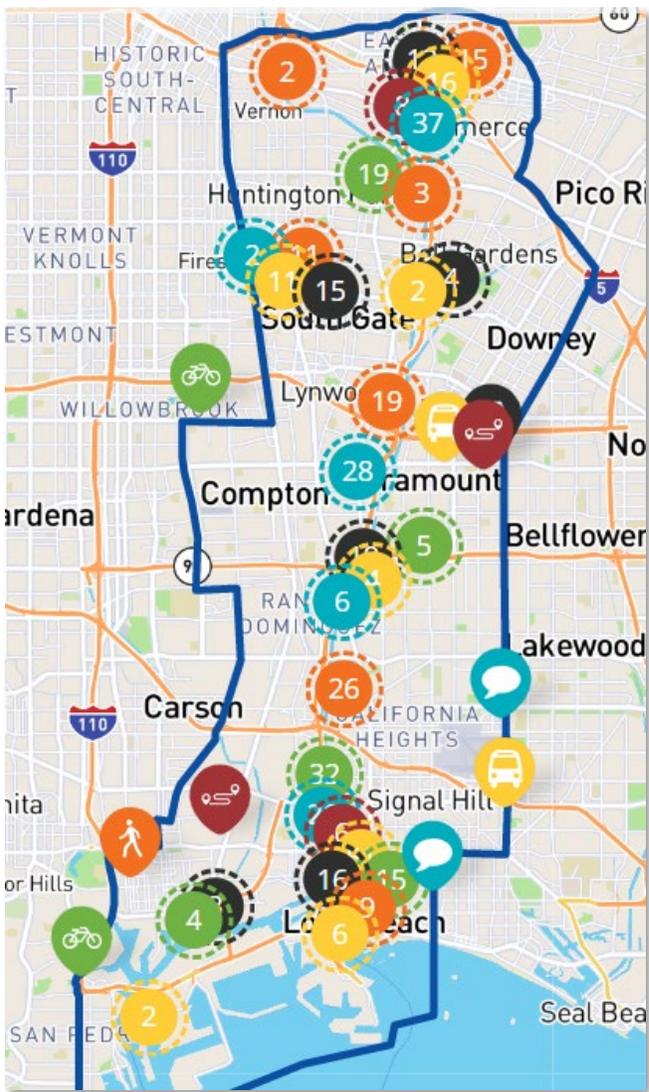
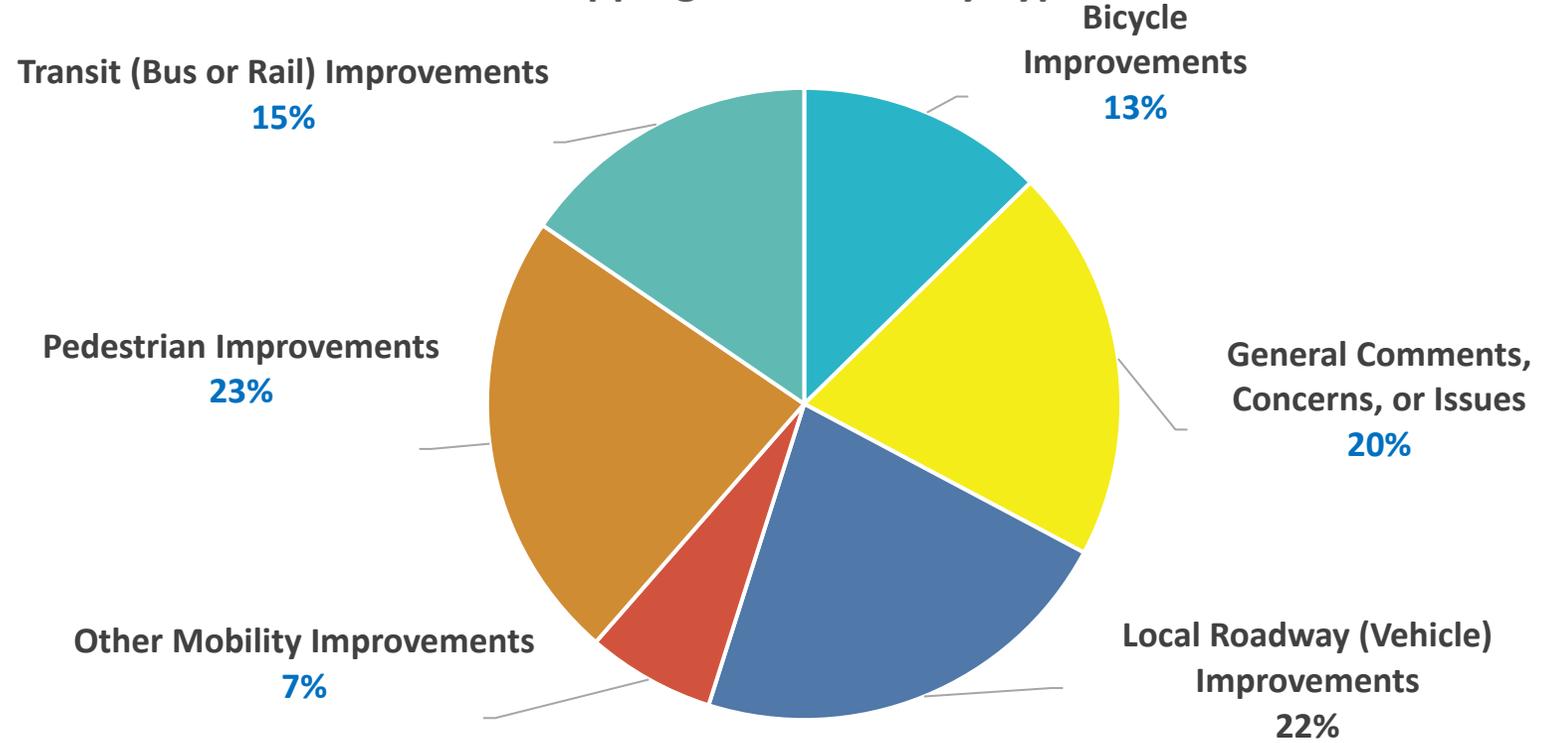
955

Map Comments

1739

Survey Responses

Mapping Comments by Type



Community-based Organization (CBO) & Public Engagement/ *Participación de las organizaciones comunitarias y del público*

11

CBO partners
socios de la CBO



5,466



stakeholders engaged so far at events
partes interesadas involucradas hasta ahora en eventos



2,495+

survey/map responses collected
encuestas/mapas de respuestas recopiladas



8,638

collateral pieces distributed at events in
English, Spanish, Khmer and Tagalog
piezas colaterales distribuidas en eventos en inglés, español, jemer y tagalo

2

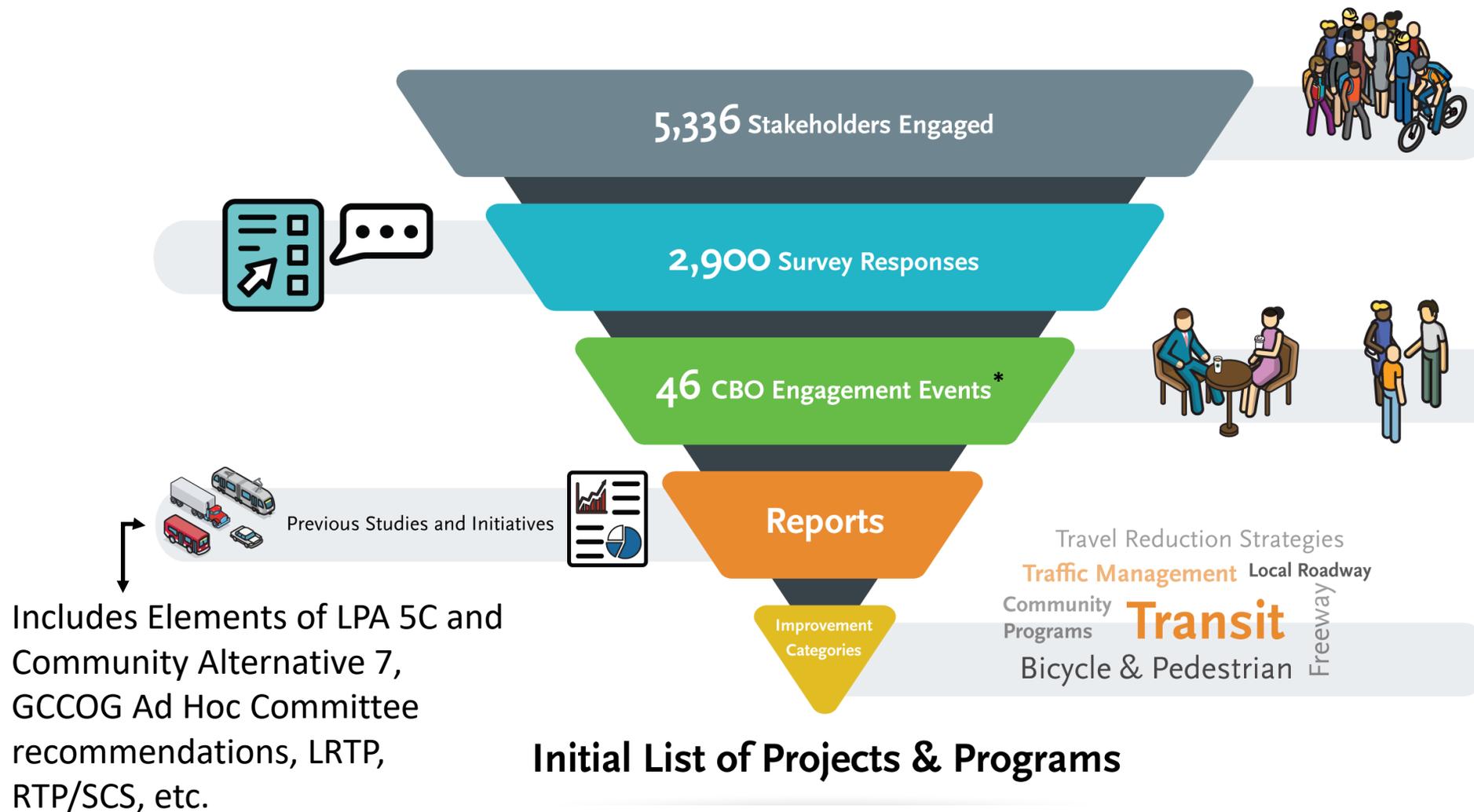
digital stakeholder survey campaigns
prepared with a combined total of
campañas digitales de encuestas a las partes interesadas preparadas con un total combinado de



1,464,381

impressions
impresiones

Initial List of Projects & Programs: Sources



Initial List of Projects & Programs: Categories

Over 300 identified projects and programs are organized by “improvement category”

All projects and programs should support a multimodal future for the Corridor. Project categories represent different modes, and each mode has sub-categories:



73 Approved Evaluation Criteria:
Four Categories that apply Vision, Goals, and Guiding Principles to the Identified Projects and Programs

ALIGNMENT WITH GOALS

Gauge how well projects / programs align with LB-ELA goals and vision

EQUITY

Determine how well the project advances equity in the corridor

PROJECT CONCERNS

Identify potential concerns and negative impacts that should be highlighted

SUSTAINABILITY

Determine how well the project advances sustainability in the corridor

FLAGS FOR ADDITIONAL CONSIDERATION

Add 'Flags' following evaluation that capture other project considerations

Inclusion of Public Health in Evaluation Criteria

Project Health Outcomes



Exposure to Health Impact Pollutants

Example Community Results

Chronic Disease Rates (Asthma, Cardiovascular Disease, Cancer)



Conditions for Physical Activity

Chronic Disease Rates, Mental Health, Strength and Coordination



Conditions for Roadway Safety

Collision-Related Injury, Disability, and Death Rates



Exposure to Extreme Heat

Heat-Related Illness Rates (Heatstroke, Heat Exhaustion, Dehydration)



Access to Healthcare, Healthy Food, & Opportunities

Preventative Care, Food Security and Nutrition, Social Determinants of Health

Evaluation Criteria with Associated Project Health Outcomes

CH1	Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)		OP6	Access to Quality of Life amenities (grocery stores, healthcare services, schools)	
CH2	Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)		OP7	Access to open space, recreation and parks, LA river, etc.	
CH3	Mode Shift to active transportation, transit		SA1	Reduces reliance on polluting and energy-intensive modes of travel and goods movement	
CH5	Bike/Ped Access to parks, recreational areas, or open spaces		SA2	Promotes physical activity and health through active transportation and recreation	
SF1	Protections for Bike / Users (bike class)		SA3	Improves climate resilience through mitigation of flooding and extreme heat impacts	
SF2	Traffic Protections (bike/ped)		SA4	Supports job creation in, and workforce transitions to green technology and infrastructure sectors	
SF4	Includes Safety Features		SA5	Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity	
SF6	Traffic Calming Features		CON4	Potential for Traffic Diversion / Emission Shifting	
EN6	Reduce Heat Island Effect; Provide Cooling Features for Users		CON5	Potential for New Hot Spots (Congestion, AQ, Ped/Bike Safety)	
OP1	Access to jobs		CON7	Potential for VMT Increases	
OP4	Work Force Development				
OP5	Potential Targeted Hire, New Construction Jobs				

Additional Items / Next Steps

- Staff will support CTC adoption of grant award recommendations at its June 28-29, 2023, meeting – will also review opportunities to apply for additional grants in 2023.
- Caltrans will complete closeout of “No Build” document by fall/early winter 2023
- Staff will continue outreach for the LB-ELA Task Force, including meeting with local jurisdictions and community groups, and consider hosting special engagement events
- Staff will conduct qualitative and quantitative approaches to evaluating all projects and determine which projects make sense to be in the Investment Plan and which ones should be handed off to external partners.
- Staff will continue to meet with public health experts and community groups to identify additional ways to incorporate public health into the Investment Plan.
- Staff supported Caltrans-led Corridor Tour on April 18th featuring Secretary Omishakin, Caltrans Director Tavares, CTC Commissioners Lyou and Martinez, CTC interim Director Taylor, etc.
- Staff will lead Corridor Tours for Task Force/CLC members on Sat., June 24th & Weds., June 28th
- Staff will present the Draft Investment Plan to the Board in November 2023.



Board Report

File #: 2023-0294, File Type: Program

Agenda Number: 12.

PLANNING AND PROGRAMMING COMMITTEE JUNE 14, 2023

**SUBJECT: LONG BEACH-EAST LOS ANGELES CORRIDOR ZERO EMISSION TRUCK (ZET)
PROGRAM STATUS UPDATE**

ACTIONS: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to program up to \$3 million of the Board authorized \$50 million seed funding programmed for the LB-ELA Corridor ZET Program as Metro's contribution to leverage federal and regional funds contingent upon the demonstration of full project funding; and
- B. RECEIVING AND FILING the report on updates for the Long Beach-East Los Angeles (LB-ELA) Corridor Zero Emission Truck (ZET) Program.

ISSUE

At the March 16, 2022, Metro Board meeting, staff presented a status update on the LB-ELA Corridor (formerly the I-710 South Corridor) ZET Program, including the formation of the ZET working group, its membership, and information shared and input received since the commencement of the working group to inform the scope of the ZET Program.

The working group meets regularly to provide guidance on the ZET Program to support an accelerated transition of heavy-duty trucks operating in the LB-ELA Corridor from diesel to ZE technology.

Through its discussions and coordination with the LB-ELA Corridor Plan Task Force, the Community Leadership Council (CLC) and Equity Working Group (EWG), the ZET working group developed the LB-ELA Corridor ZET Program Principles to provide the operating framework for staff to identify existing and develop new projects and programs consistent with the Board-approved Task Force Vision, Goals, and Guiding Principles adopted in September 2022 (File #2022-0330).

Staff has identified an opportunity to leverage a portion of the \$50 million (up to \$3 million) in seed funding for a \$15 million ZET charging facility identified by the Los Angeles Cleantech Incubator

(LACI), funded initially with a \$1.5 million Community Project Funding award secured Representative Nanette Diaz Barragán (CA-44), and owned by the Harbor Department of the City of Los Angeles (Port of LA).

This project demonstrates alignment with the ZET Program Principles, and staff believes Metro's funding commitment will support the advancement of Board direction by catalyzing other regional agencies, including the Port of LA, and private partners to fully fund the project and leverage Metro's contribution with an additional \$12 million.

This report also provides other updates on ZET Program progress and accomplishments.

BACKGROUND

The LB-ELA Corridor ZET Working Group commenced in November 2021 in response to an approved October 2021 Board motion from Directors Hahn and Dutra (Attachment A) that provided staff direction to recommit \$50 million from the original I-710 South Corridor Project as seed funding to support the development of a ZET Program, with a funding target of \$200 million, as part of the new LB-ELA Corridor Investment Plan.

The working group is charged with developing a ZET Program to support the accelerated conversion of drayage and other heavy-duty trucks operating within the LB-ELA Corridor from diesel to zero-emission technology. Its membership includes representatives from community-based organizations, public health and environmental advocacy groups, the trucking and freight industry, utility providers, academia, Caltrans, California Air Resources Board (CARB), Ports of Los Angeles and Long Beach, South Coast Air Quality Management District (AQMD), and local governments. All meetings are open to the Task Force's Community Leadership Committee (CLC) as well.

One major area of focus for the working group is to identify shovel-ready projects for heavy-duty ZE truck charging or fueling stations, evaluate such projects' alignment with the LB-ELA Corridor ZET Program Principles it developed, and determine if the use of Metro's programmed seed funding would advance these principles and Board direction.

Concurrent with the working group's efforts, LACI created the I-710 Investment Blueprint for Heavy-duty Charging Depots, which identified 14 potential sites that could be developed for battery electric charging to support heavy-duty trucks within the LB-ELA Corridor. For one of the 14 sites, LACI received a Community Project Funding award sponsored by Representative Nanette Diaz Barragan for \$1.5 million. This site is owned by the City of Los Angeles Harbor Department (Port of LA) and intended to be leased and developed.

The working group has reviewed LACI's proposal for this new site and finds it is in alignment with the ZET Program principles. The working group also finds this project to be a good opportunity for Metro to leverage its seed funding to secure other funding sources to implement the project, while also getting closer to meet the funding target of \$200 million.

DISCUSSION

Since the last update to the Board in March 2022, Metro staff and partner agency staff presented materials to facilitate the working group discussions that resulted in the LB-ELA Corridor ZET Program Principles and Framework.

The following section highlights the I-710 Investment Blueprint developed by LACI and reports on working group activities conducted to shape the ZET Program Principles and preliminary performance measures, information provided on anticipated ZET population and associated demand, truck travel behaviors within the corridor, workforce investment mechanisms, and focus group discussions. The section concludes with grant funding opportunities and next steps.

LACI Investment Blueprint for Heavy-duty Charging Depots

LACI staff presented findings from its I-710 Investment Blueprint for Heavy-duty Charging Depots (Investment Blueprint). The Investment Blueprint calculates the charging infrastructure needed to achieve the goal of having 40 percent of drayage trucks serving the Ports of Long Beach and Los Angeles be zero-emission by the year 2028. To reach this target, the Investment Blueprint analysis indicates that at least \$280 million would be needed to deploy at least 135 public chargers and 620 private chargers to support approximately 1,800 drayage trucks that operate within the I-710 Corridor.

LACI identified hotspots for trucks, based on the truck traffic analysis, that were stationary for (a) 30 minutes to three hours and (b) longer than three hours to provide a useful proxy for determining favorable locations for (a) fast charging and (b) domicile charging. For their analysis of potential sites, LACI considered a wide range of land use types, including gas stations, warehouses, distribution centers, fleet depots, and industrial yards. The Investment Blueprint also included assessments of 14 sites within the I-710 Corridor, with four sites that received in-depth assessment in partnership with Communities for Environmental Health and Justice (CEHAJ).

One of the identified sites is owned by the Port of LA, which received a federal Community Program grant award for \$1.5 million at the request of Congresswoman Nannette Barragán (CA-44). LACI staff demonstrated the project's alignment with the ZET Program principles (discussed in the next section) and requested Metro to contribute a portion of the LB-ELA ZET Program seed funding to support the development of this site.

Metro staff believes this contribution could catalyze funding from other regional agencies, including the Port of LA, and private entities to fund the project fully. Staff also believes this contribution of up to \$3 million towards a total project cost of \$15 million fulfills Metro Board direction to leverage the \$50 million seed funding to reach a funding target of \$200 million.

Program Principles and Preliminary Performance Measures

The working group members participated in breakout sessions in 2022 (May and June 2022) to formulate program principles for the LB-ELA Corridor ZET Program. Five major themes were identified: 1) community engagement, 2) strategic partnerships and funding opportunities, 3) legislative and policy initiatives, 4) truck subsidies, and 5) environmental impacts and equitable outcomes. Staff turned the insights from the breakout sessions into preliminary program principles

and identified five tasks to be pursued as a program framework.

In refining the program principles and framework, the working group incorporated community desires that were highlighted through the LB-ELA Corridor Task Force's CLC and and freight industry needs that were raised during the discussions.

The ZET Working Group agreed to support the following eight Program Principles (detailed description in Attachment B):

1. **Maximize Leverage of Seed Funding** by collaborating with regional partners and funding agencies
2. **Expeditious Deployment of Resources** to maximize the buying power and benefit of investment while supporting community engagement and effective outreach
3. **Coordination** with regional and funding partners, government agencies, and key stakeholders
4. **Community Engagement** that centers corridor residents and stakeholders throughout the development process
5. **Workforce Development** that ensures community benefits and access to opportunity through the pursuit and implementation of ZE technology
6. **Corridor Community Benefits** by creating economic opportunities, improving air quality, and reducing long-standing health impacts generated by diesel trucks
7. **Equitable Outcomes** ensured by performance metrics that evaluate sustainable outcomes
8. **Legislative Platform** designed to support the accelerated, equitable deployment of ZE technology by reducing barriers to and increasing incentives for adoption

Additionally, in response to technical presentations and information provided by staff and experts at the regional, state, and federal level, at its October 2022 meeting, the working group voted to support as a guiding framework, under Maximize Leverage of Seed Funding principle, that Metro designate \$45 million of the \$50 million programmed to support the implementation of ZE Heavy-duty Truck Infrastructure. The remaining \$5 million will be reserved to support planning, technical assistance, and community-focused elements of the ZET Program. The \$50 million seed funding will be leveraged to attract regional, state, and federal funding to meet the Board's \$200 million target.

To advance this recommended approach to fulfilling the Board's directive for the ZET Program, staff has identified a two-pronged approach comprising a near-term and medium-term strategy to secure the \$200 million funding target and fulfill the Program Principles.

In the near-term staff will identify existing project opportunities in the LB-ELA Corridor that are seeking funding through established regional and state programs, such as MSRC, the Carl Moyer Program: Infrastructure (CARB), the Clean Transportation Program (CEC) and the EnergIIZE Program (CEC). Staff's goal will be to partner with the private sector, public agencies, and communities to identify opportunities to leverage ZET Program funding with other private, regional, state and/or federal funding to deliver these ZE infrastructure projects in accordance with the program principles and in support of realizing the overall Program funding target. The staff recommendation in this report is the first example of executing this near-term strategy.

Concurrently, staff is leading discussions with the working group to develop a medium-term approach

to initiate one or more regionally-focused ZET charging/fueling Infrastructure facilities within the LB-ELA Corridor. This infrastructure will serve as a regional catalyst for advancing ZE heavy-duty truck adoption, deliver community benefits, and leverage large amounts of regional, state, and federal funds.

During this series of discussions, the working group identified preliminary performance measures and desired outcomes of the LB-ELA Corridor ZET Program (Attachment C).

Technical Presentations: LA County ZE Infrastructure Needs and LB-ELA Corridor Truck Market Segmentation:

The working group has received and engaged in discussions on several technical presentations over the past year, each designed to further a collective understanding on the ZE charging/fueling demand and infrastructure needs.

LA County ZE Infrastructure Needs

In August 2022, CARB staff presented their broader effort to reduce greenhouse gas (GHG) emissions and criteria pollutants, including a supply-side strategy to produce medium and heavy-duty zero-emission vehicles in anticipation of increasing demand for such vehicles because of Advanced Clean Fleets (ACF) regulation (enacted on April 28th 2023). The ACF regulation requires all drayage trucks entering seaports and intermodal yards to be zero-emission by 2035. Based on the ACF technology assumptions, the staff presented the overall vehicle population of statewide Class 2b (light duty) through Class 8 (heavy duty) vehicles through the year 2050.

Following the CARB presentation, Metro staff presented the findings from its commissioned Clean Truck Technology Comparative Report (Attachment D), which focused on providing technical information to support the transition to ZE heavy duty truck adoption in LA County. The report discusses changes to the composition of the drayage truck population because of the ACF regulation in LA County, and a preliminary assessment of ZE infrastructure needs and investment estimate to support both battery electric and hydrogen drayage trucks within LA County. These findings were presented to the working group as one scenario that highlights LA County's existing and future infrastructure and investment needs to support zero-emission drayage trucks.

The report compared emission reduction levels across four engine types; diesel, natural gas, battery electric and hydrogen, and assessed technology capability accordingly to truck duty cycles, market readiness and cost, and included recommendations for supporting wider and expeditious deployment of ZE truck infrastructure.

LB-ELA Corridor Truck Market Segmentation

To further the understanding of types of heavy-duty trucks that operate within the LB-ELA Corridor and the level of investment needed to support ZE trucks along the Corridor, staff from Cambridge Systematics and LACI presented the following items:

Cambridge Systematics staff presented truck travel patterns and volumes within and through the LB-

ELA Corridor to highlight clear nodes that are served by drayage trucks and local demand serving trucks. These travel patterns provide insights into potentially desirable areas to locate charging or fueling stations to meet the demand from zero-emission drayage and local demand serving trucks.

Investing in Workforce Development

The working group identified job training and workforce development as elements of the ZET Program to create opportunities to generate corridor community benefits and pathways for a more inclusive economy and upward mobility for LA County residents. The working group indicated a particular interest in local hiring targets to be included in the ZET Program as a mechanism to offer direct benefits to local residents. As such, workforce development is memorialized as a Program Principle, and staff continues to research, seek guidance, and develop collaborative approaches to implementing this goal.

Staff developed a series of presentations and discussions for the working group, starting with a presentation from the Center for International Trade and Transportation (CITT) at Cal State University, Long Beach that informed on skills mismatch between what logistics employers seek and types of training that students receive at education institutions, particularly in logistics industry middle management. This presentation also touched on the importance of gathering information from target communities as to challenges they experience in finding job opportunities and accessing jobs as part of Metro efforts in supporting workforce development.

Investing in workforce development and supporting an inclusive economy requires a well-established network of job creation catalysts, training providers, workforce resource centers and a willing workforce. To this point, the second presentation in a series invited expert panelists from the South Bay Workforce Investment Board, California Community Colleges Workforce and Economic Development Division, and CITT to discuss existing relationships across workforce development sectors, how they work together to create a network of resources to meet existing and future demand for skilled workforce, and Metro's role as a catalyst for job opportunities.

In addition to these expert panel discussions, staff continues to explore mechanisms to incorporate local hiring and targeted hiring policies into the LB-ELA Corridor ZET Program.

Private Industry Stakeholder and Community Focus Groups

Metro and LACI staff co-hosted two focus group meetings to define parameters for the development of regionally significant ZE charging/fueling infrastructure for the ZET Program.

The first focus group invited leaders from private industry and utilities to discuss the role ZE infrastructure can play in the adoption and use of ZE heavy-duty trucks, required specifications and features for ZE infrastructure to incentivize fleets to transition to ZE technology, and the role of utilities in providing energy to and supporting the development of ZE charging/fueling infrastructure for heavy-duty trucks.

Private industry stakeholders emphasized the importance of charging stations to operate reliably and

accommodate large vehicle maneuverability and driver needs through amenities. The industry anticipates Megawatt Charging Systems to be the future standard but also anticipates the need to generate energy on-site to compensate for the magnitude of investment needed to upgrade existing energy capacity or stabilize energy prices during peak hour consumption. The industry stakeholders acknowledged that acquiring real estate is extremely challenging in an urbanized area such as the LB-ELA Corridor, particularly with parcels with the right location and size to be developed for charging and refueling sites. They suggested staff evaluate where trucks currently refuel with diesel and consider multiple smaller sites rather than one large regional site to capture all needs presented.

The second focus group invited community representatives and advocates to discuss potential impacts and benefits that are or could be associated with the installation of ZE infrastructure within the LB-ELA Corridor. These participants reiterated the need to engage truck drivers, especially from smaller fleets, to gain their perspective and suggested having additional focus groups to understand how the ZET Program development could best address their needs. A need for community education was also identified as a priority to support safety for local residents, avoid unintended consequences, and avoid locating infrastructure near and around sensitive receptors.

Staff intends to use the information gathered from these focus groups and follow-up sessions to further refine the development of one or more ZE infrastructure facilities as part of the medium-term strategy for the ZET Program.

Opportunities to Leverage Metro Funding

MSRC Request for Information (RFI) on Publicly Accessible Zero-Emission Goods Movement Infrastructure

In September 2022, MSRC released an RFI to seek information and identify potential partners that can assist the MSRC in deploying publicly accessible electric vehicle supply equipment and hydrogen refueling infrastructure within the South Coast AQMD region. The purpose of the RFI is to understand the current state of the industry, including but not limited to interest levels, technologies, costs, business cases, and schedule requirements unique to installing and operating infrastructure to support the deployment of zero-emissions trucks.

MSRC received 23 responses from a combination of private and public entities, including Metro and LACI. Out of the 23 responses, Metro staff identified 18 sites that were proposed within the LB-ELA Corridor, and conducted a preliminary assessment on how they align with the ZET Program Principles. Metro staff will be working closely with MSRC to gather more details on promising sites to conduct a full assessment and present the findings to the Working Group.

One of the sites identified is the LACI recommended site that has received a federal Community Program award (see below) and is the subject of staff's recommendation to program up to \$3 million as local match to leverage other funding to implement this facility.

Other Federal Funding Opportunities

The Federal Highway Administration issued a notice of funding opportunity for the [Charging and](#)

[Fueling Infrastructure \(CFI\) Discretionary Grant Program <https://www.transportation.gov/rural/grant-toolkit/charging-and-fueling-infrastructure-grant-program>](https://www.transportation.gov/rural/grant-toolkit/charging-and-fueling-infrastructure-grant-program) in March 2023, covering Fiscal Years 2022 and 2023. This program is the first discretionary funding opportunity to support zero-emission charging or alternative fueling infrastructure through the Bipartisan Infrastructure Law. The CFI Program offers up to \$350 million available through the Alternative Fuel Corridor Grants (Corridor Program). The Corridor Program aims to support the buildout of charging and alternative fueling infrastructure along designated Alternative Fuel Corridors and emphasizes a corridor approach.

In support of advancing the program principles and goals, staff considered submitting an application for the CFI Program and coordinated with regional agencies such as the Ports of Long Beach (POLB) and Los Angeles (POLA), the AQMD, and the MSRC to determine if a joint application in support of the LB-ELA Corridor was feasible. During this deliberation the California Energy Commission (CEC) and Caltrans informed our regional partners that those agencies are jointly working on a tri-state application with Oregon and Washington states to pursue funding from the Corridor Program for projects along I-5.

CEC and Caltrans requested Metro, POLA, POLB, AQMD and MSRC to join in the tri-state effort and include the LB-ELA Corridor ZET Program in the scope of the application. Given the highly competitive nature of this program at the national level, Metro staff determined that a partnership with the state would provide the LB-ELA Corridor with the best opportunity for success to receive funding in this cycle of the CFI Program.

CEC and Caltrans joint team coordinated with Metro and our regional partners in the development of the grant application, which includes three locations within the LB-ELA Corridor and submitted it by June 13, 2023. Should this grant application receive an award, Metro staff would seek a Board approval to contribute a portion of the seed funding towards projects that are located within the LB-ELA Corridor, up to an amount that is consistent with the Board directive on leveraging the seed funding.

Future Grant Funding Opportunities

Staff's medium-term strategy to develop regionally significant ZE infrastructure for heavy-duty trucks in the LB-ELA Corridor will strategically target future cycles of regional, state, and federal funding well-suited to provide a large amount of leveraged funding to match ZET Program funds. Eligible grant programs include Cycle 4 (FY2024) and Cycle 5 (FY2026) of the Senate Bill 1 Trade Corridor Enhancement Program (TCEP) administered by the California Transportation Commission and the annual Infrastructure for Rebuilding America (INFRA) program administered by the US Department of Transportation.

Looking Ahead

LACI's I-710 Investment Blueprint and MSRC's RFI responses offer a great immediate outlook on where ZE truck supporting infrastructure could be developed within the LB-ELA Corridor in the near term, and potential projects for which Metro seed funding could be applied and leveraged. To realize the buildout of the infrastructure for the Corridor, staff acknowledges that further analyses are needed to develop a plan for sites that meet the regional needs, technology advancement for ultra-fast

charging and hydrogen dispensing, addressing permitting processes, a need for a funding strategy, advocacy for legislative changes to fully benefit small businesses that are engaged in drayage operations, and stronger and closer collaboration with stakeholders and partners who play critical roles in realizing such an infrastructure.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any safety impacts.

FINANCIAL IMPACT

Impact to Budget

Programming up to \$3,000,000 as Metro's contribution towards the LACI/City of Los Angeles/Port of Los Angeles project will derive from the \$50,000,000 seed funding that the Board authorized for the LB-ELA ZET Program. As the location of the site is not within the Gateway Cities subregion, the Measure R Gateway Cities subregion highway program funding associated with the original I-710 South Corridor Project will not be eligible for use; alternatively. Staff has identified Congestion Mitigation and Air Quality (CMAQ) Improvement funds as a source of the Metro contribution, subject to the actual project definition, consistent with the Financial Stability Policy which directs staff to prioritize available CMAQ Program federal grants to the greatest extent possible for any eligible operations costs (File #2022-0448). The CMAQ funding recommended for this contribution would be from the amount remaining above and beyond the full allowed use of this funding source for transit operations.

EQUITY PLATFORM

The LB-ELA ZET Working Group meets monthly to inform the LB-ELA ZET Program development process to ensure equitable outcomes. Developing the LB-ELA ZE Truck Program will directly address the pollution, air quality, and public health impacts caused by the operation of thousands of diesel trucks daily within the LB-ELA Corridor.

The working group members include representatives from air quality, environment, and public health advocacy groups from within the Corridor. At the commencement of the working group, staff asked CBO representatives for guidance on additional members to be invited. Based on their recommendations, staff requested CLC and Task Force members to participate in the ZET Working Group.

In response to input from community representatives, Metro will continue to engage and include members of the CLC in the development of the ZET Working Group recommendations and receive the CLC's review of the recommendations prior to finalization. To date, staff shared the LB-ELA ZET Program Goals and Principles with the CLC and Equity Working Group to ensure the goals and principles align with the overall equity principle, vision, and goals of the LB-ELA Corridor Investment Plan.

In January 2023, the LB-ELA ZET Program team conducted a focus group meeting to seek input from the Corridor communities on effective ways to engage Corridor residents and businesses, support small businesses that would be impacted from the vehicle technology transition, ensure community safety from heavy-duty vehicles, and avoiding sensitive receptors in identifying potential sites for charging or fueling stations. Nine out of 14 participants represented the Corridor communities, who are also active LB-ELA ZET Working Group members.

The working group members continue to emphasize the community's desire for job opportunities as one of the equitable outcomes of Metro investments. Staff has responded to this inquiry by scheduling expert panels on workforce development and investment in labor skills and continues defining Metro's role as a project sponsor and partner in enabling workforce and training mechanisms to benefit the Corridor communities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Collaboration among the LB-ELA Corridor stakeholders through LB-ELA Corridor Task Force, CLC, Equity Working Group and the community, agency, and industry partners that compose the LB-ELA ZET Working Group is consistent with the following goals of the Metro Vision 2028 Strategic Plan:

Goal 4: Transform LA County through regional collaboration and national leadership.

Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

ALTERNATIVES CONSIDERED

The Board can choose not to approve the local match request in support of the identified ZE truck charging site. However, this alternative action is not recommended as this project is the first opportunity for Metro to leverage Board-approved funds in pursuit of delivering publicly accessible charging infrastructure within the LB-ELA Corridor for heavy-duty drayage trucks and towards fulfilling the funding target of \$200 million, in accordance with Board direction.

NEXT STEPS

Staff will work with the Port of LA and the City of Los Angeles to incorporate mechanisms to bring community desired benefits through Metro contribution for the site development.

Staff will continue to lead the LB-ELA ZET Working Group's efforts to refine and advance the LB-ELA Corridor ZET Program and secure professional services to develop a business plan for implementation, particularly focused on regional site assessment and identification, cost estimates, attracting discretionary funding, and potential private partner selections in advancing the medium-term strategy for the program.

ATTACHMENTS

Attachment A - October 2021 Motion by Directors Hahn and Dutra

Attachment B - LB-ELA ZET Program Principles

Attachment C - LA-ELA ZET Program Preliminary Performance Measures

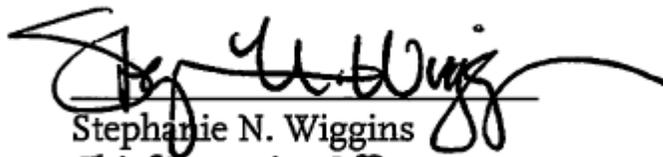
Attachment D - Clean Truck Technology Comparative Report

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Stephanie N. Wiggins
Chief Executive Officer

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

File #: 2021-0708, **File Type:** Motion / Motion Response**Agenda Number:** 16.

**REGULAR BOARD MEETING
OCTOBER 28, 2021****Motion by:****DIRECTORS HAHN AND DUTRA****Substitute Motion - 710 South Clean Truck Program**

Communities along the I-710 South Corridor are confronted daily with unacceptable public health conditions, created in part by diesel emissions from heavy duty trucks. Diesel particulate matter is the single-largest contributor to air toxics cancer risk in the South Coast Air Quality Management District (AQMD) region, with Southeast Los Angeles communities having even higher air toxics cancer risk than the overall region.

In April 2020, the Metro Board of Directors committed \$50 million of Measure R funding from the I-710 South Corridor Project to advance deployment of a “710 South Clean Truck Program,” contingent upon a Record of Decision issued by the Federal Highway Administration for the I-710 South Corridor Project.

In January 2021, the Board approved the 2021 LA County Goods Movement Strategic Plan, which included a Countywide Clean Truck Initiative, with the 710 South Clean Truck Program identified as a goods movement strategic priority.

In May 2021, the Board suspended further work on the I-710 South Corridor Project EIR/EIS and asked Metro staff to reconsider Project components. As a result, Metro staff created a new I-710 South Task Force, including representatives of corridor cities, community-based organizations, goods movement stakeholders, and the Ports of Los Angeles and Long Beach.

Both the Federal and State governments have been moving aggressively to provide funding for the deployment of Zero Emissions trucks. Further, the Ports are pursuing a clean trucks program, and AQMD is implementing a new battery electric truck program.

SUBJECT: SUBSTITUTE MOTION - 710 SOUTH CLEAN TRUCK PROGRAM**RECOMMENDATION**

APPROVE Motion by Directors Hahn and Dutra that directs the CEO to take the following actions:

- A. Recommit \$50 million from Measure R I-710 South Corridor Project funds as “seed funding” for a 710 South Clean Truck Program,
- B. Collaborate with the I-710 Task Force, local and regional stakeholders, cities, the Ports, the I-710 South Task Force, and the Gateway Cities COG to develop a 710 South Clean Truck Program that seeks to deploy Zero Emissions trucks in the I-710 Corridor as soon as possible,
- C. Conduct aggressive Federal and State advocacy to secure funding for a 710 South Clean Truck Program, including as many as possible of the 1,000 Zero Emissions trucks included in the FY22 California State budget.
- D. Report back to the Board in February 2022 and May 2022 with updates on stakeholder engagement and Program development and implementation, including areas for possible further study, consideration, and development to achieve Zero Emissions goods movement objectives along the I-710 South Corridor.

LB-ELA Zero Emission Truck Program Principles

Timeline of Input

- > **Community Leadership Committee (CLC)** provided input on September 22, 2022
- > **Equity Working Group (EWG)** providing equity-focused input today, September 29, 2022
- > At the October 18, 2022 **ZET Working Group Meeting**, the ZET Working Group will:
 - review input from the Equity Working Group
 - Vote to approve the ZET Program Principles

Overview

1

Maximize leverage of seed funding

by collaborating with regional partners and funding agencies.

2

Expeditious Deployment of Resources

to maximize the buying power and benefit of investment while supporting community engagement and effective outreach.

3

Coordination

with regional and funding partners, government agencies, and key stakeholders.

4

Community Engagement

that centers corridor residents and stakeholders throughout the development process.

5

Workforce Development

that ensures community benefits and access to opportunity through the pursuit and implementation of ZE Technology.

6

Corridor Community Benefits

by creating economic opportunities, improving air quality, and reducing long-standing health impacts generated by diesel trucks.

7

Equitable Outcomes

ensured by performance metrics that evaluate sustainable outcomes.

8

Legislative Platform

designed to support the accelerated, equitable deployment of ZE technology by reducing barriers and increasing incentives to adoption.

Maximize leverage of seed funding – by collaborating with regional partners and funding agencies.

- > Pursue **additional regional, state, and federal funding** to reach \$200 million
- > Use **\$45M** seed funding to leverage investment in **regionally significant infrastructure** projects
- > Use **\$5M** seed funding to support **corridor-specific and small fleet** objectives
- > Fund **community benefits** as part of overall strategy

Expeditious Deployment of Resources — to maximize the buying power and benefit of investment while supporting community engagement and effective outreach.

- > Ensure that the effort to meet funding deadlines and expedite the deployment of seed funding will also **uphold community engagement principles** and support **effective outreach**.
- > Aim to leverage and expend all ZET Program **resources by FY 2027-28**.

Coordination — With regional and funding partners, government agencies, and key stakeholders.

- > Coordinate with **funding partners, regional agencies, and local communities** to support deployment of ZE technology in the corridor.
- > Align ZET program with criteria to **secure funding** at the regional, state, and federal levels.
- > Create a program that is compatible with and **enhances other regional efforts**.

Community Engagement – that centers corridor residents and stakeholders throughout the development process.

- > Work with 710 Task Force, CLC, and EWG to **identify equitable outcomes** and integrate **Community Benefits**.
- > Engage and **collaborate with communities directly impacted** by the proposed sites.
- > **Increase awareness of ZE operations and impact** through community tours and educational initiatives.

Workforce Development

— that ensures community benefits and access to opportunity through the pursuit and implementation of ZE Technology.

- > Work with regional and community partners to **understand job training and workforce needs** related to ZET.
- > Work with labor partners to pursue **local and targeted hire** opportunities.
- > Increase **community access to quality job opportunities** that pay living wages.
- > Coordinate with **existing workforce development** programs.

Corridor Community Benefits — By creating economic opportunities, improving air quality, and reducing long-standing health impacts generated by diesel trucks.

- > Address **needs of local communities**, many of which have borne impacts of travel and goods movement along the I-710 corridor.
- > **Provide and protect corridor community benefits** at the outset and throughout the project through ZE job training and workforce development.
- > **Establish metrics** to understand if investments are leading to meaningful benefits.

Equitable Outcomes — ensured by performance metrics that evaluate sustainable outcomes.

- > Develop a variety of **localized performance metrics** to measure improvements and quality of life for residents along the corridor.
- > Work with the 710 Task Force, Equity Working Group, and CLC to **apply principles from the EPET**.
- > Monitor **performance** over time, evaluate **outcomes**, and identify potential **areas of improvement**.

Legislative Platform — designed to support the accelerated, equitable deployment of ZE technology by reducing barriers and increasing incentives to adoption.

- > Develop a legislative platform with **policy solutions that reduce barriers** for truck owners or companies to secure a ZE truck.
- > Support incentives and outreach necessary to **accelerate deployment of ZE Class 8 trucks**
- > Work with regional partners to prioritize **highway and street maintenance**.

Key Equity Considerations for ZET Program & Principles

Community Engagement and Decision-making Input

- > Engage city councils, planning commissions, seniors, faith-based communities, school districts, and colleges/universities
- > Leverage CLC connections
- > Educate communities in culturally relevant, accessible ways using different modes of teaching (e.g., videos, audio slides)

Community Benefits related to ZET Program

- > Local hire and job training are critical and must be in accessible locations
- > Prioritize funding for local owner-operators (e.g., access to chargers, discounted rates, technical assistance)
- > Communities can assist in identifying areas for improvements (e.g., air filtration, tree planting, beautification)

Performance Metrics and Evaluation of Equitable Outcomes

- > Add PM 2.5 to the GHG emissions metric
- > Incorporate people most disadvantaged/impacted by the 710 South Corridor into employment metrics
- > Consider health metrics comprehensively (e.g., asthma and cancer rates)

LB-ELA Zero Emission Truck Program Preliminary Performance Measures

Performance Measures and Desired Outcomes – Preliminary

Workforce Development and Jobs

- Net increase in jobs
- Increase in per capita income
- Growth in new manufacturing and deploying infrastructure

Environmental

- Reduction in GHG Emissions
- Amount of EV subsidies for small fleets

Public Health

- Avoided premature deaths over time
- Avoided asthma attacks in young children

Community

- Reduced household energy costs



→ Clean Truck Technology Comparative Report

Final Report

September 2022



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List of Acronyms

AC	Alternating Current
ACF	Advanced Clean Fleets
ACT	Advanced Clean Trucks
AQMD	Air Quality Management District
BET	Battery Electric Truck
BPT	Benefit per Ton
CalETC	California Electric Transportation Coalition
CARB	California Air Resources Board
CEC	California Energy Commission
CNG	Compressed Natural Gas
DC	Direct Current
DCFC	Direct Current Fast Chargers
DGE	Diesel Gallon Equivalent
DPM	Diesel Particulate Matter
EDF	Environmental Defense Fund
EMFAC	Emission Factor
EPA	Environmental Protection Agency
ER	Emergency Room
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FCET	Fuel Cell Electric Truck
g/bhp-hr	Grams per Brake Horsepower-Hour
GHG	Greenhouse Gases
GNA	Gladstein, Neandross, & Associates
GVWR	Gross Vehicle Weight Rating
HVIP	California Hybrid and Zero Emission Truck and Bus voucher Incentive Project
IPT	Incidence per Ton
Kg	Kilogram
kW	Kilowatt
LADWP	Los Angeles Department of Water and Power
LCFS	Low Carbon Fuel Standard
LFG	Landfill Gas
MD/HD	Medium-Duty / Heavy-Duty
MOU	Memorandum of Understanding
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NH ₄	Ammonium
NO _x	Nitrogen Oxides

P3	Public-Private Partnership
RNG	Renewable Natural Gas
SCE	Southern California Edison
SOx	Sulfur Oxides
TCO	Total Cost of Ownership
VIP	Carl Moyer Voucher Incentive Program
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VW	Volkswagen
ZETI	Zero Emission Technology Inventory

1 Executive Summary

Despite significant improvement in air quality and public health over the past decades, there are still many communities in California, especially low-income and disadvantaged communities near major freight facilities, which are suffering from high levels of air pollution. Of all the sources of air pollution, mobile sources, especially diesel trucks and equipment are one of the major contributors to adverse air quality and public health in California. Considering that Los Angeles County (LA County) is home to the largest container port complex in the nation, emissions from Class 8 trucks, especially those serving the Ports of Los Angeles and Long Beach (San Pedro Bay Ports), rail yards, and logistics facilities have been one of the major public health concerns within communities surrounding the ports. In response to these concerns, local and state agencies in California have recently adopted multiple regulations and policies to curb the emissions from diesel trucks and transition the California heavy duty fleet to zero emission (ZE) technologies. While these regulations and policies will require the vehicle manufacturers to sell and fleets operating in California to purchase zero emissions vehicles, successful adoption of these programs will also heavily rely on the availability and accessibility of charging and fueling infrastructure. This report is intended to uncover some of the challenges with accelerated adoption of heavy-duty zero emission truck technologies and provide a set of recommendations that various stakeholders can consider in the near term.

Today there are more than 55,000 Class 8 trucks operating within LA County emitting approximately 25 tons of nitrogen oxides (NO_x) – a precursor to ozone – and approximately 385 lbs. of diesel particulate matter (DPM) every day, per analysis of California Air Resources Board’s (CARB) Emission Factor (EMFAC2021) data.¹ When considering that these trucks travel through communities and near schools and residential areas, it becomes even more important to design effective programs and strategies that can accelerate the emissions reductions from these vehicles and reduce the air pollution burden, especially within low income and disadvantaged communities in the County. To effectively guide policy and program design, the project team initiated this study by conducting a comprehensive evaluation of the commercial availability, readiness, and total cost of ownership (TCO) of various clean truck technologies such as battery electric, hydrogen fuel cell, low NO_x natural gas, and low NO_x diesel. This assessment provides a clear picture on the market status of each of these four technologies and an outlook for technology commercialization. Specifically with respect to battery electric technology, our assessment demonstrated that while today there are several zero emission models available that could serve in drayage and delivery business, it will take until the mid- to late-2020s for the technology to be vastly deployed in regional-hauls, and until 2030 for the long-haul operations. Similarly with hydrogen fuel cell electric trucks (FCET), while today there is a limited availability, it is expected that by 2030, there will be models available that could be placed in long-haul intrastate and interstate operations.

The project team projected the mix of Class 8 truck technologies that LA County could anticipate between 2022 through 2040 considering the impact of the State’s Advanced Clean Trucks (ACT) and proposed Advanced Clean Fleets (ACF) regulations. Through this assessment, it is estimated

¹ California Air Resources Board. (n.d.). EMFAC2021. In *EMFAC*. Retrieved from <https://arb.ca.gov/emfac/>

that by 2040, LA County could expect approximately 48,500 battery electric and 10,700 hydrogen fuel cell electric Class 8 trucks operating on its roadways, which make up approximately 56 percent and 12 percent of the total projected 2040 truck population, respectively. Our analysis also showed that as a result of this massive zero emission technology adoption, by calendar year 2040, NOx emissions from Class 8 trucks in LA County would be as low as 2.5 tons per day, nearly 10 times lower than business-as-usual emissions in the same year. With respect to DPM, the projected technology mix is expected to result in an 85% reduction from the 2030 baseline. Our analysis, based on the U.S. Environmental Protection Agency's (EPA) Benefit per Ton estimates², demonstrated that these reductions could result in cumulative health benefits in the form of 511 – 524 reduced mortality, 285 fewer respiratory related emergency room (ER) visits, 57 fewer respiratory related hospital admissions, and almost 75,000 fewer work loss days in LA County. All combined, these health outcomes are estimated to bring in more than \$5 billion in cumulative health benefits between 2024 through 2040.

Aside from the emissions reductions and the health benefits, the project team also estimated that by 2040 these zero emission trucks will likely consume more than 10,000 megawatt-hour (MWh) of electricity and approximately 260,000 kilograms (kg) of hydrogen per day. To support such demand, we estimate that there may be a need for more than 45,000 level 2 and direct current fast charger (DCFC) ports of which approximately 26,000 may be located at fleets' private truck depots (i.e., private charging ports), 11,000 may be deployed as public charging ports for overnight charging, and more than 8,000 public charging ports may be available for opportunity fast charging. There may also be a need for roughly 50 up to 260 hydrogen fueling stations to support FCETs, depending on the stations' assumed daily fueling throughput (this study considered scenarios of 1,000 to 5,000 kg/day). Importantly, these estimates are only for one scenario and set of assumptions; results may vary based on several factors such as charger capacities, station throughputs, truck-to-charger ratios, etc. Altogether, building such a network of zero emission infrastructure in LA County is estimated to cost anywhere between \$2.9 to \$3.7 billion. Note that this only reflects the direct costs of equipment and installation; it excludes the cost associated with land acquisition, electric utility distribution grid equipment upgrades, upgrades to site-level make-ready infrastructure, design, engineering, and permitting. It is expected that total costs will exceed this range due to these additional capital expenditures.

Already, California offers a suite of incentive programs that provide funding towards the purchase of zero emission trucks and buildout of zero emission infrastructure. While these funding programs have been instrumental in reducing the incremental cost of zero emissions trucks, the overall cost of transition is much greater than the funding made available through the state budget. That is why complementary programs and policy actions by local agencies and utilities, such as LA Metro, and South Coast Air Quality Management District (AQMD), the San Pedro Bay Ports, Southern California Edison, and Los Angeles Department of Water and Power (LADWP) will be necessary to ensure the County can achieve its public health goals through an equitable transition

² U.S. Environmental Protection Agency. (2022, January 13). Estimating the Benefit per Ton of Reducing Directly-Emitted PM2.5, PM2.5 Precursors and Ozone Precursors from 21 Sectors. In Benefits Mapping and Analysis Program (BenMAP). Retrieved from <https://www.epa.gov/benmap/estimating-benefit-ton-reducing-directly-emitted-pm25-pm25-precursors-and-ozone-precursors>

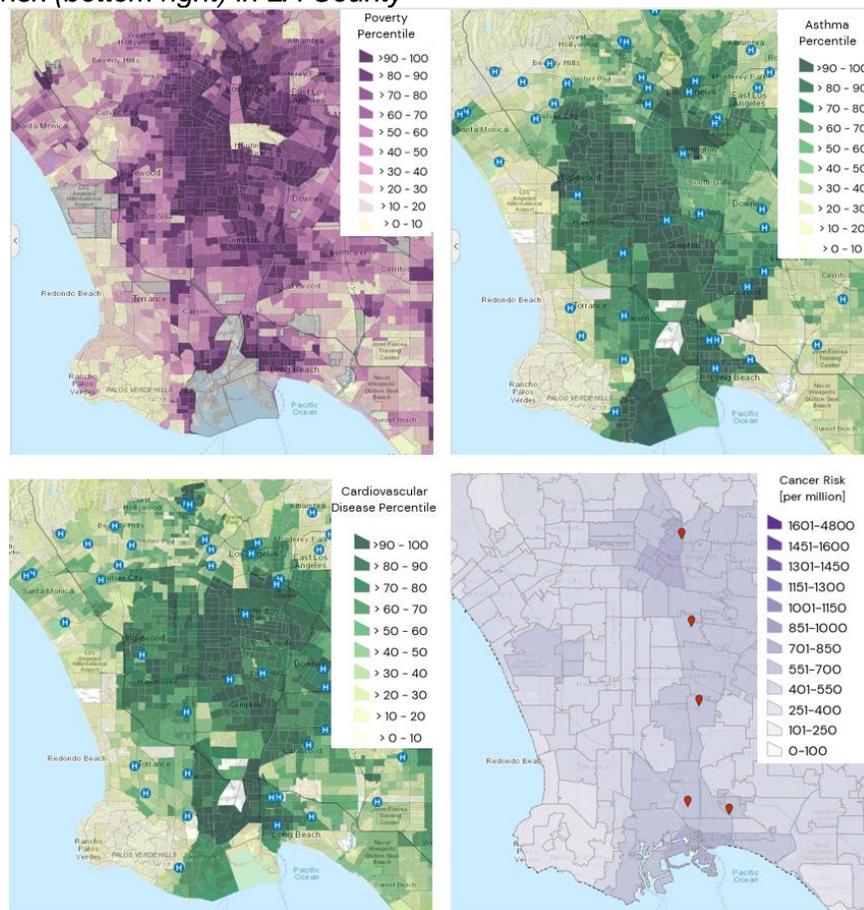
to zero emission trucks. In coordination with these stakeholders, the project team developed a set of recommendations that various stakeholders could consider as they join forces to accelerate adoption of clean technology in the County. These include:

- **Create public-access overnight charging lots for small fleets:** Currently, almost one third of Class 8 trucks registered in California belong to fleets of 1 – 3 vehicles, which are less likely to have private depots to host charging infrastructure and will likely need to rely on overnight public charging infrastructure to meet their daily demands. Engaged stakeholders and end users should find mechanisms to provide public overnight charging lots for smaller fleets without depots. This approach would more directly address local, short-term needs for smaller fleets within LA County. For the long-term, LA Metro may consider coordinating with other major freight centers outside of LA County to determine how they can support the eventual deployment of long-haul ZE trucks through strategically located and sized charging and fueling infrastructure.
- **Streamline permitting, site development requirements, and land acquisition requirements to support EV charging infrastructure and hydrogen fueling station deployment:** Building this infrastructure will entail many elements including land acquisition, site readiness, equipment installation and operation. Because these processes involve multiple entities including landowners, fleet owners and operators, cities, and utilities, improving existing processes to streamline and eliminate inefficiency would be paramount to realizing the needed infrastructure implementation in a timely manner.
- **Simplify structures of existing incentive and grant programs:** Existing literature on end user perspectives of zero emission trucks suggests that fleets find some programs difficult to navigate, and that there are tax implications associated with receiving incentive funding. More specifically, fleets have expressed concerns regarding the cost impact of income taxes imposed on incentives received, along with vehicle registration fees for those vehicles. As state agencies, such as CARB and CEC, examine options to offer greater funding opportunities to fleets, the design of these programs may have room to become more user friendly, particularly to enhance accessibility and attractiveness of these funds to small fleets.
- **Provide technical assistance to small fleets:** Our evaluation of existing literature on end user perspectives of zero emission trucks reinforced that costs associated with these vehicles and infrastructure installation are some of the largest barriers to fleet transition. Further, small businesses and small fleets, in particular, have fewer resources and technical knowledge to fully benefit from incentives and grant programs. To address these barriers, one opportunity is to identify small truck fleet owners who are interested in procuring zero emission vehicles and offer technical assistance so they can pursue state grants and incentives.
- **Leveraging Public-Private Partnership (P3) Models:** P3s have been proven to be effective tools for rapid delivery of infrastructure projects and increasing the opportunities for innovation. Engaged stakeholders and end users could leverage the existing P3 model, as well as vehicle and infrastructure as-a-service models, to facilitate and speed up deployment of public fueling and charging infrastructure across major freight corridors.

2 Introduction

Los Angeles County, the most populous county in the United States with more than 10 million inhabitants, is one of very few regions in the country that is suffering from high levels of photochemical smog, which is a type of air pollution containing ground level ozone and other chemicals. Exposure to ground level ozone can cause negative health effects, including coughing, difficulty breathing, and an increased frequency of asthma attacks. The county is one of the only two areas in the country that extremely exceeds national ambient air quality standards (NAAQS) for ozone. Failure to meet these standards by the U.S. EPA's designated deadline would not only have negative public health impacts but could also trigger various federal sanctions, such as highway sanctions, which will impose adverse economic impacts on the region. Aside from the federal air quality requirements, there are also many communities within LA County that are disproportionately impacted by air pollution from transportation and industrial activities within the region. For example, Figure 1 shows a side-by-side comparison of asthma, cardiovascular disease cases (from CalEnviroScreen 4.0), and air toxics cancer risk (from South Coast AQMD's MATES V Multiple Air Toxics Exposure Study) to poverty levels (from CalEnviroScreen 4.0) in LA County. This figure illustrates how regions with higher levels of poverty, especially those surrounding ports and major freight facilities, are the same communities suffering from high levels of asthma, cardiovascular diseases, and are exposed to high levels of air toxics cancer risk.

Figure 1. Poverty (top left), asthma cases (top right), cardiovascular disease (bottom left), and air toxics cancer risk (bottom right) in LA County³



Of all sources of air pollution, Class 8 heavy-duty diesel vehicles (above 33,000 lbs. gross vehicle weight rating - GVWR) are one of the major sources driving air quality issues in these communities. These vehicles are significant emitters of NOx (a precursor to ozone), fine particulate matter (i.e., PM2.5), and Diesel PM. Here we briefly describe some of these ambient air pollutants that are caused by emissions from Class 8 heavy-duty diesel vehicles.

Ground level ozone is mainly formed through the reaction of NOx and volatile organic compound (VOC) emissions – pollutants that are known as ozone precursors. According to U.S. EPA, short-term exposure to ground-level ozone can cause a variety of respiratory health effects, including inflammation of the lining of the lungs, reduced lung function, and respiratory symptoms such as cough, wheezing, chest pain, burning in the chest, and shortness of breath. Exposure to ambient concentrations of ozone has been associated with the aggravation of respiratory illnesses such as asthma, emphysema, and bronchitis, leading to increased use of medication, absences from

³ Based on CalEnviroScreen 4.0 and MATES V Multiple Air Toxics Exposure Study: California Office of Environmental Health Hazard Assessment. (2021, October 20). CalEnviroScreen 4.0. In California Office of Environmental Health Hazard Assessment. Retrieved from <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40> ; South Coast Air Quality Management District. (n.d.). MATES V Multiple Air Toxics Exposure Study. In South Coast Air Quality Management District. Retrieved from <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>

school, doctor and emergency department visits, and hospital admissions. Short-term exposure to ozone is associated with premature mortality.

Particulate matter or PM is a generic term that is used to describe a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. PM could be emitted directly from emissions sources (PM emissions from the vehicle tailpipe) or formed in the atmosphere through reaction of gaseous emissions such as Sulfur Oxide (SO_x), NO_x, and ammonium (NH₄) (also known as secondary PM). In general, particulate matter is grouped by its size into PM₁₀ and PM_{2.5}. PM_{2.5} refers to particles with a diameter less than 2.5 micrometers (um), whereas PM₁₀ refers to particles of diameter between 2.5 um and 10 um. Studies have demonstrated that short or long-term exposure to both PM_{2.5} and PM₁₀ could result in adverse health effects such as premature mortality, aggravation of respiratory and cardiovascular disease (e.g., increased hospital admissions and emergency visits), and changes in sub-clinical indicators of respiratory and cardiac function

Diesel PM is a type of PM that is generated through combustion of diesel fuel in an internal combustion engine. In 1998, CARB identified DPM as a toxic air contaminant⁴ based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. These health impacts are of particular concern for communities surrounding goods movement facilities. These health effects include exacerbation of asthma, increased hospitalizations, premature birth, and premature deaths from heart and/or lung diseases.

Figure 2 shows a high-level relationship between major emissions from Class 8 heavy duty diesel trucks (along with those from other sources), ambient air pollutants (e.g. Ozone, ambient PM_{2.5}, and Diesel PM), and their associated public health impacts.

⁴ According to section 39655 of the California Health and Safety Code, a toxic air contaminant (TAC) is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health.". A complete list of TACs can be found at: <https://oehha.ca.gov/air/general-info/toxic-air-contaminant-list-staff-reportsexecutive-summaries>

Figure 2. Simplified relationship between emissions (e.g., NOx, SOx, VOC, directly emitted PM2.5), ambient air quality (e.g., Ozone, and ambient PM), and public health impacts

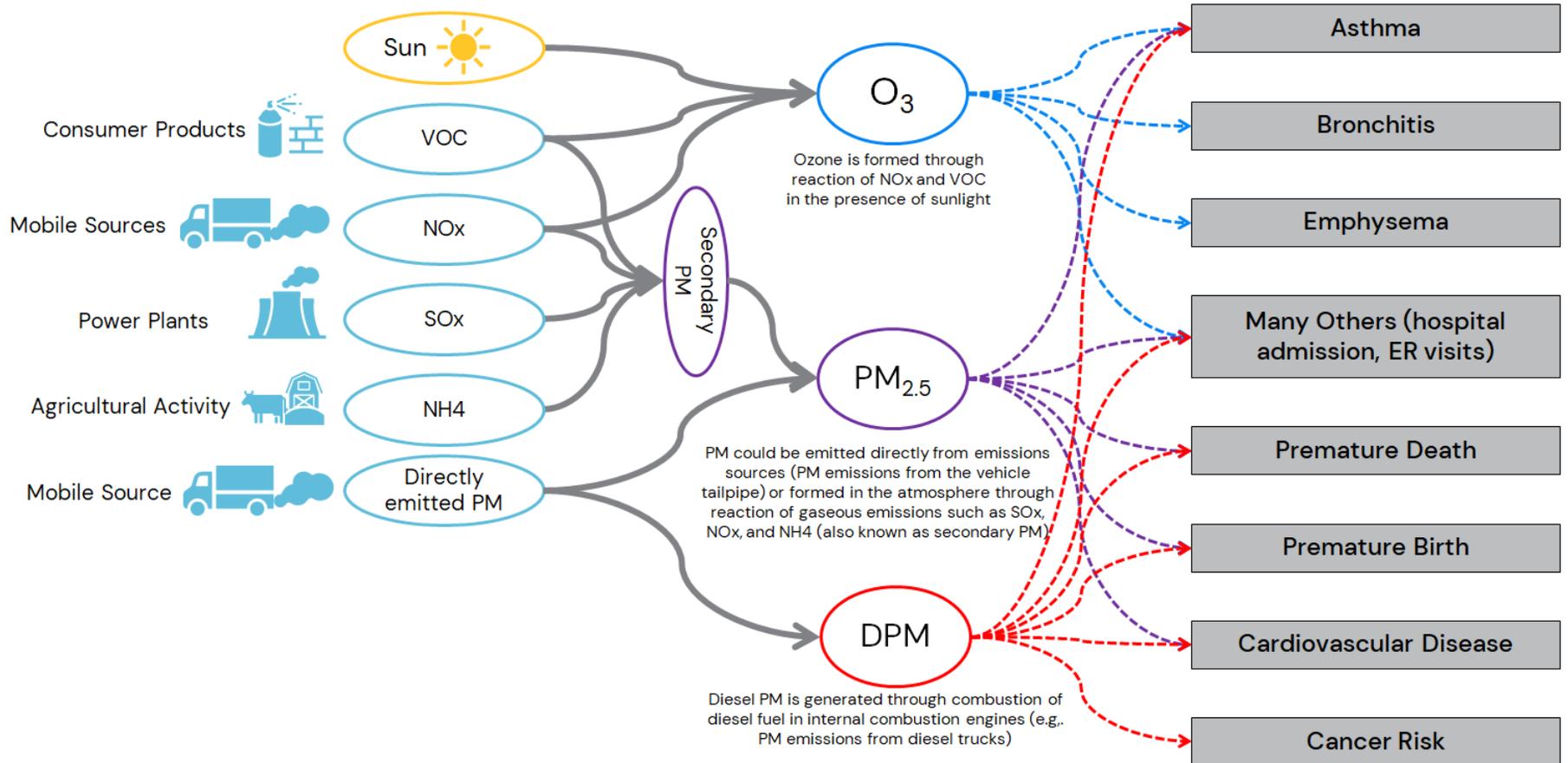
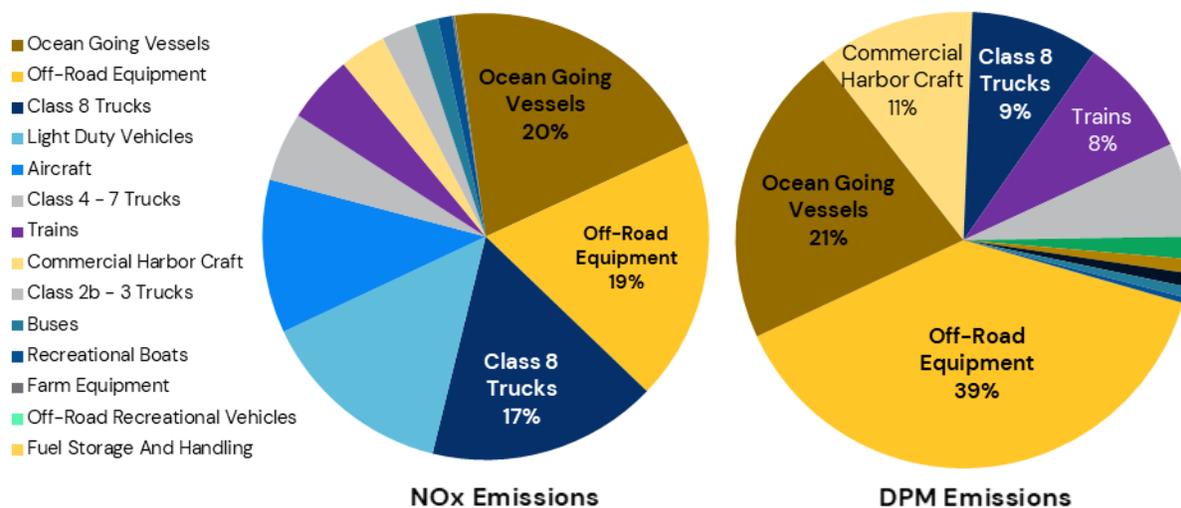


Figure 3 below shows the contribution of these vehicles to NOx and DPM emissions within LA County in 2022. While only 10 percent of DPM and one-fifth of NOx emissions in California are associated with operation of these vehicles, emissions from these vehicles are occurring in close proximity to schools and residential areas as these trucks travel through local communities. Such proximity makes these vehicles a significant contributor to air pollution exposure in these communities. These vehicles are also a significant source of greenhouse gas (GHG) emissions contributing to global climate change.

Figure 3. NOx and DPM emissions by mobile source categories – LA County, 2022⁵



In response to these issues, the State of California has established numerous goals and adopted various policies to accelerate the adoption of zero and near-zero emission vehicles across these sectors. For example, in September 2020, Governor Gavin Newsom signed Executive Order No. N-79-20, setting ambitious targets for the state to reach 100 percent zero emission medium- and heavy-duty (MD/HD) vehicles in the state by 2045 for all operations where feasible, and 100 percent zero emission drayage trucks by 2035. To achieve these ambitious targets, CARB has adopted multiple regulations such as the ACT regulation to accelerate the adoption of zero emissions technologies in the heavy-duty sector. CARB is also pursuing a new regulation called the Advanced Clean Fleet regulation which, starting in 2024, will require fleets operating in California to transition to zero emission technology with the goal of transitioning all drayage trucks to zero emission by 2035 and the rest of heavy-duty vehicles to zero emission by 2045. CARB is planning to adopt this new regulation in late 2022. Additionally, State agencies such as CARB and California Energy Commission (CEC), as well as public and investor-owned utilities, are currently offering a suite of different incentive programs within California that provide funding toward purchase of zero emissions trucks, replacement of older diesel vehicles with cleaner technology, and buildout of zero emissions infrastructure.

Achieving these ambitious goals will require an “all-hands on deck” approach. While state agencies are establishing regulatory requirements and incentive programs to accelerate the

⁵ California Air Resources Board. (n.d.). CEPAM2019v1.03 – Standard Emission Tool. In California Air Resources Board. Retrieved from <https://ww2.arb.ca.gov/applications/cepam2019v103-standard-emission-tool>

transition, contributions from local agencies such as LA Metro will be crucial to prepare the region for the upcoming wave of clean fuel technologies, including battery electric trucks (BET) and hydrogen FCETs. In response to this need, LA Metro commissioned ICF to develop a Clean Truck Technology Comparative Report which could serve as guidance to inform decision-making among policymakers and Metro staff as it relates to near-,mid-, and long-term actions that the agency should take to support the transition to clean heavy-duty truck technologies. Through this report, the project team delivers an objective assessment of various zero and near-zero emission technologies over various time periods and provide insights on the level of technology transformation needed for LA County to meet its public health and climate goals, as well as the scale of fueling and charging infrastructure needed to support this transition.

To further elaborate on the complexity of transitioning Class 8 heavy duty trucks to zero and near-zero emission technology, it is critical to understand the current inventory and operation of these vehicles within the County. Here in this section, we will provide some statistics on the population and mix of these trucks in LA County. Unlike light duty vehicles, Class 8 heavy duty trucks come



in many different body styles, body types, and vocations which is why transitions to zero emission technology is often more challenging due to their unique operational and logistical constraints. In this project, we divided Class 8 trucks into 5 major categories:

Out of State – Out of State trucks refer to trucks that are not registered to the state of California but travel within California roadways. These trucks are also referred to as “interstate” or “long-haul” trucks, and often with sleeper cabs.



California Registered Interstate – These are similar to out of state trucks but are registered in California instead. These are commonly tractor-trailer combination trucks that can move heavy loads and goods across states.

California Registered Intrastate – California Registered Intrastate trucks refer to tractor-trailer combination trucks that move heavy loads, livestock, and refrigerated trailers, only operate within California boundaries, and are often day cabs.



Drayage – Trucks that pick up and deliver shipping containers from Ports or intermodal railyards to other facilities. In this report, drayage trucks are defined as California registered Class 8 trucks that visit the ports two times a week on average.



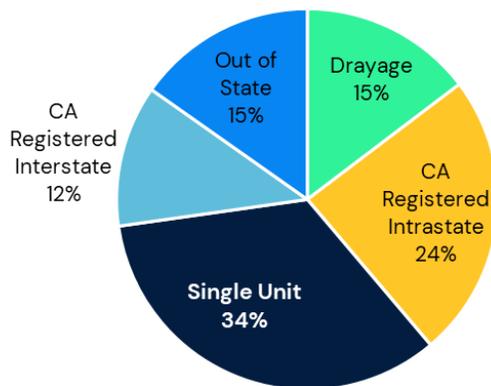
Single Unit – Single Unit trucks are often single-body trucks (i.e., trucks that do not have detachable trailers) that are more purpose oriented (e.g., concrete mixers, dump trucks, refuse trucks, some of the delivery trucks).

According to CARB’s Emission FACTor (EMFAC2021) model⁶, currently there are more than 55,000 Class 8 trucks operating within LA County.

⁶ California Air Resources Board. (n.d.). Welcome to EMFAC. In California Air Resources Board. Retrieved from <https://arb.ca.gov/emfac/>

Figure 4 shows the mix of these trucks by the categories defined earlier. Of the 55,000 Class 8 trucks, more than 8,000⁷ are frequently visiting the San Pedro Bay Ports (more than two times per week). These trucks are often travelling locally between the ports, railyards, and warehouses and are one of the major air pollution concerns to communities near those facilities. This is why for many years, communities surrounding the ports and I-710 have been seeking state and local agencies to accelerate transition of these trucks to zero emission. In addition to drayage trucks, there are about 15,000 interstate trucks operating within the County (8,500 registered outside of CA and 6,500 registered within California). These trucks are often traveling across state borders, which makes their transition to zero emissions challenging, not only due to their energy intensive operation but also their need to access regional and national zero emissions infrastructure networks. There are also more than 32,000 CA registered trucks operating in LA County of which almost 60 percent are single unit trucks and 40 percent are tractor trailers. These trucks operate in a variety of duty cycles from long-range intrastate travel to local operations. For example, the single unit truck category encompasses a multitude of truck types that are comparable by body type (e.g., delivery trucks, cement mixers, dump trucks, and other trucks where the whole vehicle is considered as one piece unlike tractor-trailers), but drastically different in terms of operation.

Figure 4 - Class 8 Trucks by Vehicle Category for LA County 2022



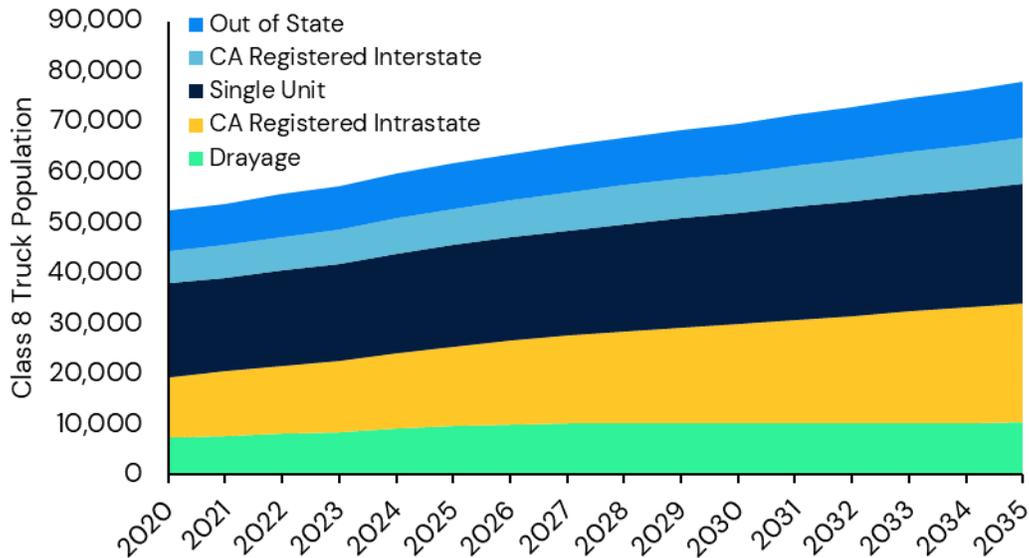
Vehicle Category	Population
Out of State	8,473
Drayage	8,163
CA Registered Intrastate	13,430
CA Registered Interstate	6,680
Single Unit	18,880
Total	55,626

The EMFAC2021 model can also forecast the population of Class 8 trucks. As shown in Figure 5, the total Class 8 truck population in LA County is expected to go from 55,000 in 2022 to almost 78,000 trucks in 2035, an increase of 40 percent by 2035. Within the next decade, the number of California registered Interstate and Intrastate trucks are expected to increase significantly by 35 percent and 76 percent, respectively. Unlike the other truck categories, the population of drayage trucks is expected to plateau post 2035, due to cargo capacity limitations associated with the Ports. In a business-as-usual scenario, most of these trucks are assumed to be powered by diesel, although a small fraction will be powered by zero

⁷ This number is lower than the commonly reported 18,000 trucks that serve these two ports. It needs to be noted that not all those trucks are frequently visiting the ports, and not all of them are operating within LA County at any given point in time (while they visit the ports, 100 percent of their operation is not in LA County). That is why the number reported in Figure 4 is lower than the drayage truck numbers reported by the Ports.

emissions technologies due to the zero emission truck production mandate (i.e., ACT regulation). More on the existing and projected truck technology mix is provided in Section 4, including how other regulations (e.g., CARB’s ACF Rule) are expected to impact the mix of truck technologies over time.

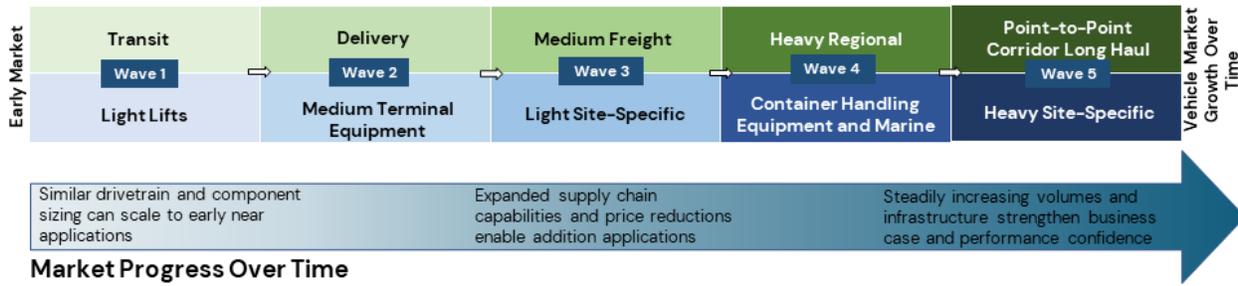
Figure 5 - Projected Class 8 Truck Population by Vocation in LA County



3 Market Readiness and Costs

Class 8 truck technologies that will be discussed in this report include conventional diesel and natural gas fueled heavy-duty trucks, as well as hydrogen FCETs and BET. This section will discuss the technology readiness for each of the alternative truck technologies. In summary, diesel and natural gas trucks are in the mature stage of commercial readiness, with improvements to emissions control systems and fuel efficiency expected over the next 5 to 10 years. For zero emission technologies it is expected that these technologies will commercialize systematically, with vehicles operating on predictable and shorter routes succeeding first, particularly those with access to overnight charging depots. Following these use cases, technology is expected to develop to serve longer and more complicated applications over time. CARB calls this projection of commercialization the Beachhead Strategy, and it is shown graphically in Figure 6 below.

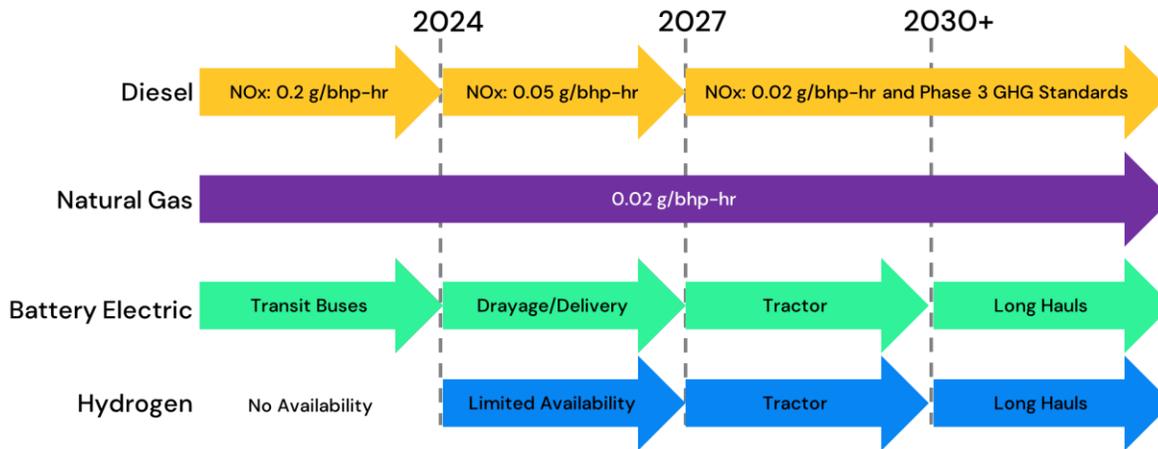
Figure 6 - CARB Zero Emission Beachhead Strategy (from CALSTART)⁸



Despite zero emission technology being in early stages of commercialization, over the last three years there have been several announcements by major truck manufacturers on the development and production of zero emission MD/HD vehicles (i.e., battery electric and fuel cell trucks). According to the Global Commercial Vehicle Drive to Zero Initiative’s Zero Emission Technology Inventory (ZETI), there are approximately 20 heavy-duty BET models and 8 heavy-duty hydrogen FCET models either available or planned to be available by the mid-2020s, as of March 2022.⁹ These models are offered with different battery capacities and electric ranges making them suitable for various trucking vocations.

The remainder of this section will describe where the technology stands today, and how it is envisioned to evolve over the next 10 – 15 years considering upcoming regulatory actions and industry announcements. A summary of this is illustrated in Figure 7.

Figure 7 - Progression of Technology Development over the next 10 years¹⁰



⁸ CALSTART. (n.d.). The Beachhead Strategy. In *Global Commercial Vehicle Drive to Zero*. Retrieved from <https://globaldrivetozero.org/about/program/>

⁹ CALSTART. Zero Emission Technology Inventory. Retrieved March 14, 2022, from <https://globaldrivetozero.org/tools/zero-emission-technology-inventory/>.

¹⁰ Diesel and Natural gas emission rates indicate NOx emission reductions due to engine improvements.

Diesel

For diesel trucks, the introduction of new engine and aftertreatment systems, combined with the use of renewable diesel, has led to significant reductions in both criteria and GHG emissions. Today, all new diesel engines sold across the U.S. are meeting a national NOx emission standard of 0.2 grams per brake horsepower hour (g/bhp-hr) and PM standard of 0.01 g/bhp-hr.¹¹ Compared to 1998 standards (4 g/bhp-hr for NOx and 0.1 g/bhp-hr) these standards are 20 times cleaner for NOx and 10 times cleaner for PM. In August 2020, CARB adopted its



proposed amendments to the exhaust emissions standards and test procedures for 2024 and subsequent model year heavy-duty engines and vehicles (also known as the Heavy Duty Omnibus regulation) that requires all California-certified heavy-duty engines of model year 2024-2026 to meet 0.05 g/bhp-hr NOx standard, with more stringent standards (0.02 g/bhp-hr) for the subsequent model years. With these standards on the book in California we expect to see cleaner diesel technology (i.e., 0.02 g/bhp-hr) to be commercially available nationwide in the next 3 – 5 years. In addition, the market for renewable diesel is growing in the U.S. and especially in California, as a result of the federal Renewable Fuel Standard as well as California's Low Carbon Fuel Standard (LCFS) Program. It is expected that production capacity could increase significantly through 2024, based on project announcements that either are currently under construction or could be in development soon.¹²

Natural Gas

Natural gas-powered trucks are another type of commercially available technology that, when compared to diesel trucks, can reduce criteria pollutants such as NOx and PM, GHG emissions, and most importantly fully eliminate diesel PM, one of the key sources of public health issues in communities near major freight facilities. In 2016, the first 0.02 g/bhp-hr certified natural gas engine was introduced by Cummins Westport Inc. As of February 2022, there are several low NOx-certified engine models and sizes that are available for sale in California.¹³ Please note that this list includes engines for both medium-duty and heavy-duty vehicles. In addition to low NOx engines, the use of renewable natural gas (RNG) is also an approach to reduce the environmental impacts of natural gas trucks. Lifecycle GHG emission reductions can be significantly improved when



¹¹ The U.S. EPA has also proposed a new rule that would set more stringent standards to reduce NOx and GHG emissions, beginning in vehicles with model year 2027. See: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-and-related-materials-control-air-1>

¹² U.S. Energy Information Administration. (2021, July 29). U.S. renewable diesel capacity could increase due to announced and developing projects. In Today in Energy. Retrieved from <https://www.eia.gov/todayinenergy/detail.php?id=48916>

¹³ California Air Resources Board. (n.d.). Optional Reduced NOx Standards for Heavy-duty Vehicles. In California Air Resources Board. Retrieved from <https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards>

natural gas trucks are powered by RNG. Domestic production of RNG began around 2005 with the majority of projects being landfill gas (LFG). As of 2021, agricultural RNG and LFG projects each made up approximately 50% of domestic RNG projects, with other potential feedstocks on the horizon such as diverted green waste. However, when it comes the use of RNG, there are many sectors that will be competing for this fuel. Not only can RNG be used in decarbonizing the transportation sector, but it is also envisioned to facilitate reduction of emissions in hard to electrify sectors such as heavy industry and buildings.

Hydrogen Fuel Cell Electric

Hydrogen fuel cell vehicles are largely still in technology development stages with demonstrations and pilots still ongoing. Hydrogen fuel cell transit buses are fully commercially available, but HD hydrogen trucks are still being developed and automaker-announced models generally have later timeframes for release compared to BETs. Due to their on-board hydrogen storage, hydrogen FCETs have a longer range, require fewer stops on long routes, can be fueled much faster, and have less risk of



Source: Toyota

lost cargo capacity compared to BETs. Through the Global Commercial Vehicle Drive to Zero Program, CALSTART has developed a list of heavy-duty FCETs that are currently available or expected to be available within the next few years. Currently there are eight hydrogen heavy-duty truck models announced to be manufactured over the next 2 - 3 years. Hydrogen powered trucks from Hyundai, Hyzon, Kenworth, Nikola and Navistar International Corporation are expected to be released through 2024, according to reported availability dates per CALSTART's Zero Emission Technology Inventory.¹⁴ The expected electric range for these vehicles spans between approximately 250 miles for the Hyundai Xcient to 900 miles for Nikola Two FCEV. Importantly, there is currently limited availability of hydrogen fueling infrastructure in LA County which is capable of serving Class 8 trucks. Significant hydrogen fueling infrastructure, and electric vehicle (EV) charging infrastructure for that matter, will need to be developed to accommodate future increases in the number of these trucks on the road. This topic is addressed in greater detail within Section 5.

Battery Electric

The readiness of Class 8 EVs varies depending on the vehicle's duty cycle, range requirements, and general application. As referenced in Figure 7, transit buses are farther along in the market followed by short-haul drayage, refuse and delivery trucks. However, Class 8, BET technology is still under development. While truck models are relatively more available for some drayage and short-haul applications, manufacturers are still working to produce



Source: Tesla

¹⁴ CALSTART. Zero Emission Technology Inventory. Retrieved March 14, 2022, from <https://globaldrivetozero.org/tools/zero-emission-technology-inventory/>.

models with longer range capabilities. Class 8 trucks with shorter and more predictable routes are suitable candidates for early deployment EVs. These duty cycles do not need EVs with significantly high ranges (with the exception of routes with several turns and shifts), and the return to base and local operations of these vehicles make charging infrastructure deployment less complicated compared to longer range and more energy intensive applications. With that said, all heavy-duty vehicles are in the early market entry stage of commercialization. A January 2022 report by CALSTART indicates that there had been 47 heavy-duty zero emission truck deployments across the United States as of December 2021, not including pending truck orders.¹⁵ Of the 20 electric models reported by the Drive to Zero Initiative, ranges vary from as low as 56 miles with BYD 8R refuse trucks to as high as a projected 500 miles for the Tesla Semi (Long-Range Edition). While the reported availability years for some of these trucks are noted as 2021 or 2022, production of these vehicles may have been delayed due to supply chain issues caused by the pandemic or for other issues faced by the manufacturers. Though most manufacturer targets commit to fossil-free vehicles without prescribing to a specific technology, it is likely that manufacturers will provide more BET offerings than hydrogen FCETs due to the size of the current and expected near-term BET market (25 vehicle offerings) in comparison to the hydrogen truck market (8 vehicle offerings), as well as the expected pathway for commercialization (favoring short-haul routes first) and BETs business case advantage over FCETs for shorter routes.

Another important consideration is the cost of zero emission Class 8 trucks and how the costs compare to conventional diesel and natural gas trucks. One useful framework for assessing the cost to own and operate a vehicle is total cost of ownership, which considers the capital cost to purchase the vehicle (including taxes) and the infrastructure, as well as operating costs, including fuel and maintenance. Specifically, the TCO helps to understand the economics of a vehicle over its lifecycle, and offers a framework to compare different truck technologies with each other (e.g., BETs compared to diesel trucks). Three TCO studies were reviewed for this project, including those conducted as part of CARB's ACT¹⁶ and ACF¹⁷ rulemakings, as well as one ICF conducted as part of a study for the California Electric Transportation Coalition (CaETC).¹⁸ As shown in Figure 8, this literature review suggests that multiple studies project battery electric Class 8 trucks used on short-haul routes to have lower average lifetime TCO than other fuels.¹⁹ Importantly, this figure is showing average results; whether one truck technology is more or less costly than the other will depend on several factors, including the purchase price of the truck, the cost of infrastructure, the

¹⁵ Al-Alawi, B. M., MacDonnell, O., McLane, R., & Walkowicz, K. (2022, January). Zeroing In On Zero Emission Trucks. In CALSTART. Retrieved from https://calstart.org/wp-content/uploads/2022/02/ZIO-ZETs-Report_Updated-Final-II.pdf

¹⁶ CARB. (2019, February 22). Appendix H Draft Advanced Clean Trucks Total Cost of Ownership Discussion Document. Retrieved from <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/apph.pdf>

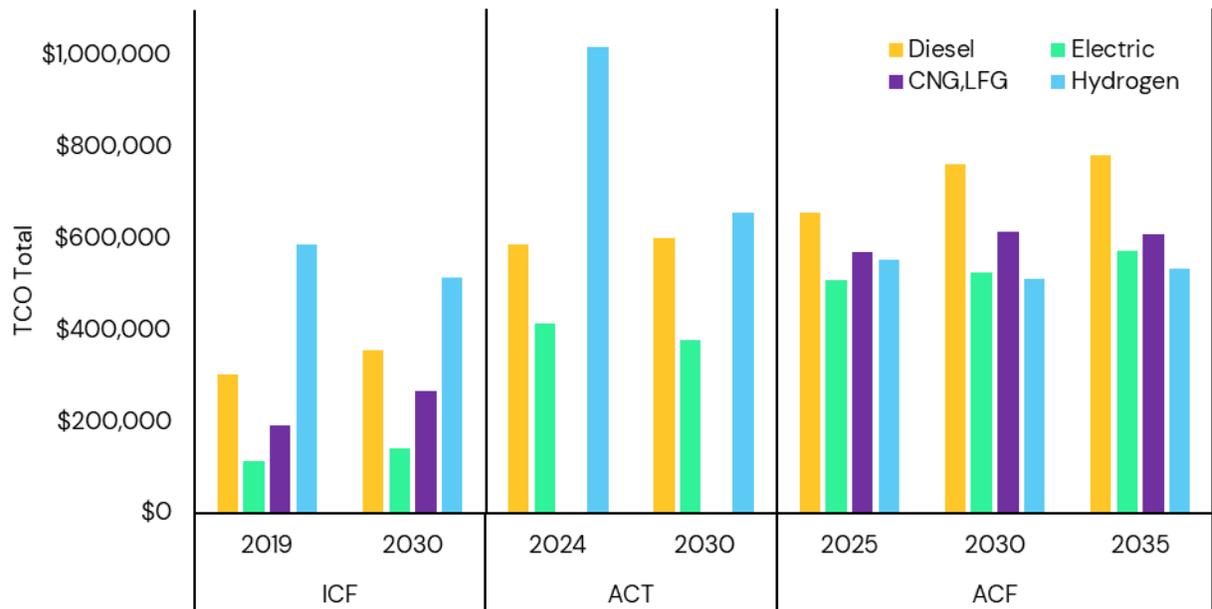
¹⁷ CARB. (2019, February 22). Appendix H Draft Advanced Clean Trucks Total Cost of Ownership Discussion Document. Retrieved from <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/act2019/apph.pdf>

¹⁸ ICF. (2019, December). Comparison of Medium- and Heavy-Duty Technologies in California. Retrieved from https://caetec.aodesignsolutions.com/assets/files/ICF-Truck-Report_Final_December-2019.pdf

¹⁹ Some studies reviewed include incentives within their respective cost analyses. See the technical report which is associated with this final report and titled *Vehicle Technology Readiness, Market Acceptance, Commercial Availability, and Estimated Costs* for more details.

truck’s operations, fuel costs, maintenance costs, and whether or not incentives are factored into the calculations. It is important to note, however, that TCO studies make a number of assumptions which influence the final results. Total cost of ownership is highly dependent on several factors, such as the type of truck purchased, truck purchase prices, daily mileage, truck fuel economy, fuel prices, maintenance costs, the inclusion of incentive funding, and general operational characteristics for the truck. Results may vary depending on these assumptions and across different studies.

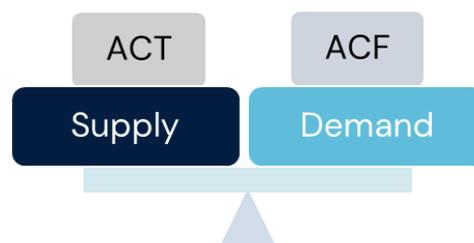
Figure 8. Reviewed TCO Analysis Results – Class 8 Trucks Used on Short-Haul Routes²⁰



²⁰ To see more detail on each study’s assumptions and results, please refer to the technical report associated with this final report that is titled *Vehicle Technology Readiness, Market Acceptance, Commercial Availability, and Estimated Costs*.

4 Vision for Class 8 Truck Technology

To accelerate adoption of zero emission trucks in California, the state has recently adopted several regulations which require both the supplier of the trucks (i.e., manufacturers) to sell zero emission trucks in California and Californian consumers (i.e., fleets) to purchase those trucks. Therefore, these regulations are intended to both increase the supply of zero emission trucks and induce consumer demand.



On the supply side, the ACT regulation is a manufacturers ZEV sales requirement which applies to vehicles with a GVWR greater than 8,500 lbs. (Classes 2b through 8) and manufacturers with greater than 500 annual California sales²¹. The regulation requires manufacturers to produce and deliver zero emission trucks in California. By 2035, the regulations will require 55 percent of Class 2b-3, 75 percent of Class 4-8 vocational (i.e., any class 4- 8 trucks excluding class 7-8 tractors), and 40 percent of Class 7-8 tractors sold in California to be zero emission. CARB adopted the ACT regulation in June 2020 with the first sales requirement kicking in 2024. Upon the adoption of the ACT regulation in California, 15 states and the District of Columbia announced a joint memorandum of understanding (MOU), committing to work collaboratively to advance and accelerate the market, with the goal of reaching 100 percent of all new MD/HD vehicle sales to be zero emission vehicles by 2050, and with an interim target of 30 percent zero emission vehicle sales by 2030.

In the meantime, CARB is working on a complementary regulation to create consumer demand for zero emission trucks in California. The ACF regulation, planned for board consideration in fall 2022, seeks transition of fleets to zero emission vehicles and will focus on setting two major ZE truck requirements. The first is a ZE vehicle purchase schedules for public fleets. The second is 100% ZE requirements for drayage and high priority/federal fleets²². Beginning 2024, a large fraction of heavy-duty vehicles operating in California would be subject to the following requirements:

- a) **State and Local Government Fleets:** From 2024 through 2026, at least 50% of new public vehicle additions must be ZE vehicles, and the 100% of new purchases should be ZE starting in 2027.
- b) **Drayage Fleets:** Beginning in calendar year 2024, new drayage trucks added to Port registries must be ZE, and all drayage trucks must be ZE by 2035. The ACF regulation notes that legacy drayage trucks (i.e., diesel and natural gas drayage trucks) may enter the Port registry prior to 2024 and operate to the extent of their useful life, but not past 2035.
- c) **High Priority and Federal Fleets:** California heavy-duty truck fleets are high-priority if: 1) the fleet has 50 or more vehicles, or 2) the fleet earns \$50 million in gross annual revenue – otherwise, the fleet is not subject to this regulation. Similar to drayage trucks, starting 2024,

²¹ Manufacturers with less than 500 annual California sales are exempt, but may opt-in to earn credits for selling ZEVs.

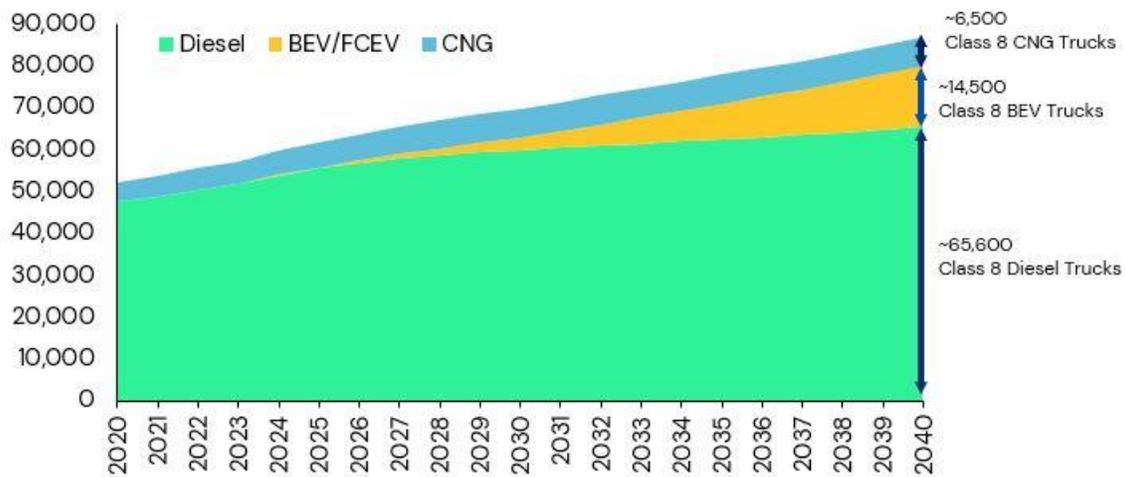
²² South Coast Air Quality Management District. (2022). *Draft Air Quality Management Plan*.

<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/draft2022aqmp.pdf?sfvrsn=12>

high priority fleets can only add ZEVs to their fleets and legacy ICE vehicles have until the end of their useful life to transition to ZE. The proposed ACF regulation also provides another compliance option wherein which fleets are not restricted from procuring ICE vehicles after 2024, but are required to hit pre-established ZEV milestones each year.

According to CARB’s estimates, by 2050, almost two-thirds of the trucks operating in California are supposed to be zero emission. It is expected that the ACT and ACF regulation are going to drastically change the mix of Class 8 truck technologies in LA County. To project that mix, the project team utilized the EMFAC2021 model to establish a fleet and emissions inventory under baseline conditions between calendar years 2020 through 2035. Under this baseline scenario, the EMFAC2021 model already reflects the impact of adopted regulations, including ACT sales requirements, HD Low-NOx Omnibus standards, and the Truck and Bus Rule. The projected Class 8 truck population by fuel type is shown in Figure 9. Under the baseline scenario, an overwhelming majority of Class 8 trucks are projected to use diesel fuel. Under this scenario, by 2035, 80% of all Class 8 trucks would be diesel powered, whereas only 10% of all Class 8 trucks would be zero emission as a result of ACT and other already adopted regulations.

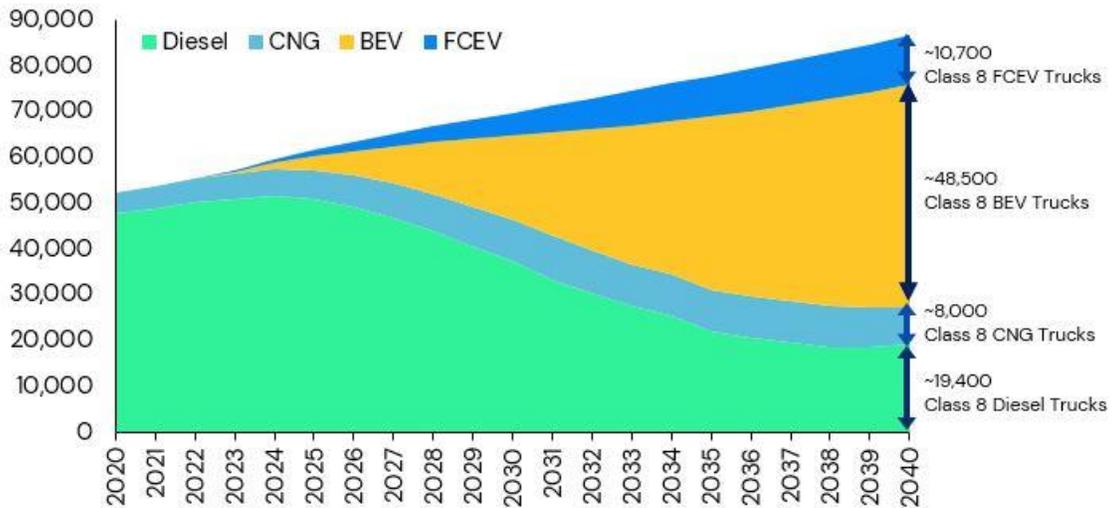
Figure 9. Projected Class 8 Truck Population by Fuel in LA County – Business as Usual



To reflect the impact of the ACF regulation, the project team modeled a separate scenario and applied the ACF’s proposed regulatory requirements to LA County’s baseline fleet and emissions inventory to determine the resultant Class 8 truck technology mix between 2020 through 2040 (the ACF Scenario)²³. The overall LA County Class 8 truck population by fuel type based on an ACF scenario is shown in Figure 10. As a result of ACF, the project team anticipates that in 2035, the Class 8 diesel truck population would decrease by 70% when compared to the baseline scenario, while the number of zero emission technologies would increase by a factor of five.

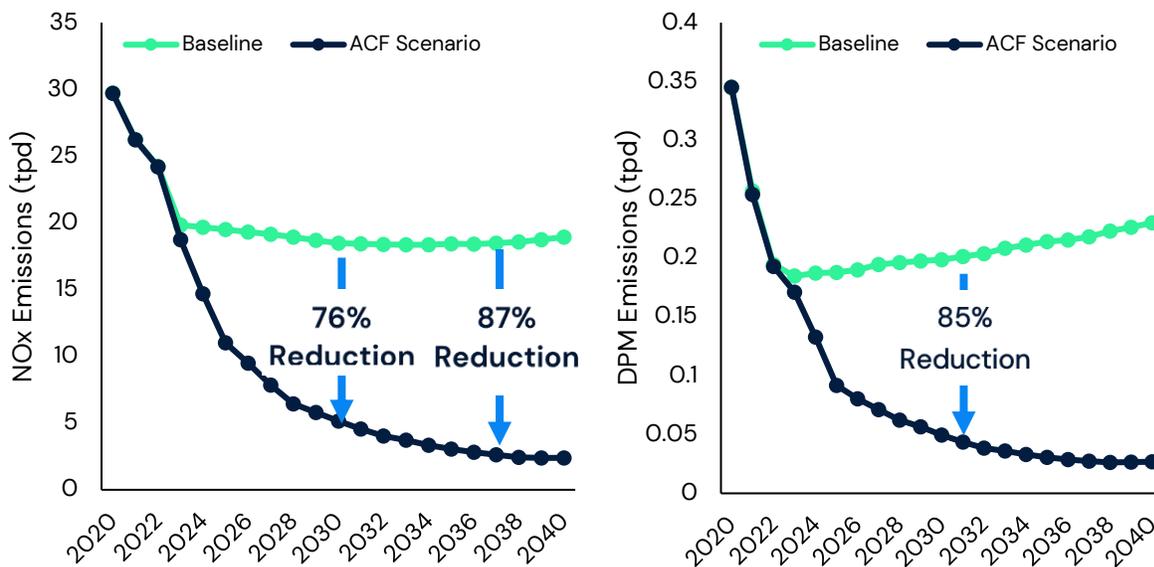
²³ More details on the methodology to reflect ACF regulation is provided in the technical report which is associated with this final report and titled *Projected Changes to Technology Mix from Existing and Proposed Regulations, and Resulting Benefits to Air Quality and Public Health*.

Figure 10. Projected Class 8 Truck Population by Fuel under ACF Scenario in LA County



The project team also modeled the emission reductions projected to occur due to the change in LA County’s Class 8 truck technology mix under both scenarios (Baseline and the ACF Scenario). The assessment considers NOx and DPM emission reductions expected from the HD I&M and proposed ACF regulations, and emission reductions are assumed to be proportional to decreases in the diesel truck population. LA County’s projected NOx and DPM emissions by scenario are shown in Figure 11.

Figure 11. Projected NOx and DPM Emissions by Scenario in LA County



As shown, the projected technology mix for Class 8 trucks in the ACF Scenario is estimated to result in NOx reductions of 76% from the 2031 baseline and 87% reductions from the 2037 baseline, which are key attainment dates for federal ambient air quality standards for ozone in the South Coast Air Basin. By calendar year 2040, NOx emissions from Class 8 trucks in LA County would be as low as 2.5 tons per day, nearly 10 times smaller than baseline emissions in the same

year. With respect to DPM emissions, the proposed technology mix is estimated to result in 29% reductions from the 2024 baseline and 85% reductions from the 2030 baseline.²⁴

To further elaborate on the public health implications of the proposed technology mix, the project team used the incidence-per-ton (IPT) methodology developed by U.S. EPA²⁵. Under this methodology, changes in emissions are assumed to be proportional to changes in health outcomes. Considering that health outcomes of exposure to PM2.5 are much more significant than ozone, in this study, the project team focused our assessment on health benefits of reducing directly emitted PM2.5, and PM2.5 precursors (i.e., NOx). This is also similar to the methodology that CARB uses when quantifying the health benefit of regulations. For the purpose of this report, we quantified values associated with four health outcomes, including:

- Mortality
- ER Visits for Respiratory Issues
- Hospital Admissions for Respiratory Issues
- Work Loss Days.

As illustrated in Figure 12, between 2024 and 2040, the projected technology mix in the ACF Scenario, combined with the reduction in emissions resulting from the HD I/M regulation, is estimated to result in approximately 511 – 524 less mortality, 285 fewer respiratory related ER visits, 57 fewer respiratory related hospital admissions, and almost 75,000 fewer work loss days in LA County. Please note that for mortality rates, U.S. EPA IPT factors provide a low and a high range.

Figure 12. Cumulative (2024-2040) health benefits associated with emissions reductions from Class 8 trucks in LA County



 **5 Billion
in Health
Benefits**

In addition to quantifying the health benefits, the project team also quantified the economic value of avoided health impacts using the U.S. EPA's benefit per ton (BPT) values, which represent the monetized value of avoided health outcomes associated with reduced exposure to PM2.5. These values are reported in 2016 dollars. Using these assumptions, the project team estimated that

²⁴ LA Metro's 2020 Sustainability Strategic Plan set a target to reduce total PM emissions 62 percent from the 2018 baseline by 2030. See: <https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-03/LA-Metro-Sustainability-Strategic-Plan-2020.pdf>

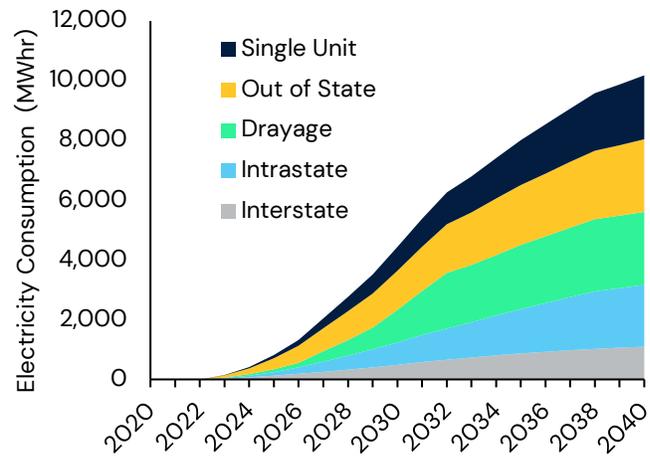
²⁵ U.S. Environmental Protection Agency. (2022, January 13). Estimating the Benefit per Ton of Reducing Directly-Emitted PM2.5, PM2.5 Precursors and Ozone Precursors from 21 Sectors. In Benefits Mapping and Analysis Program (BenMAP). Retrieved from <https://www.epa.gov/benmap/estimating-benefit-ton-reducing-directly-emitted-pm25-pm25-precursors-and-ozone-precursors>

the technology mix presented could result in avoided health costs of approximately \$5 billion in LA County.

5 Charging and Fueling Infrastructure

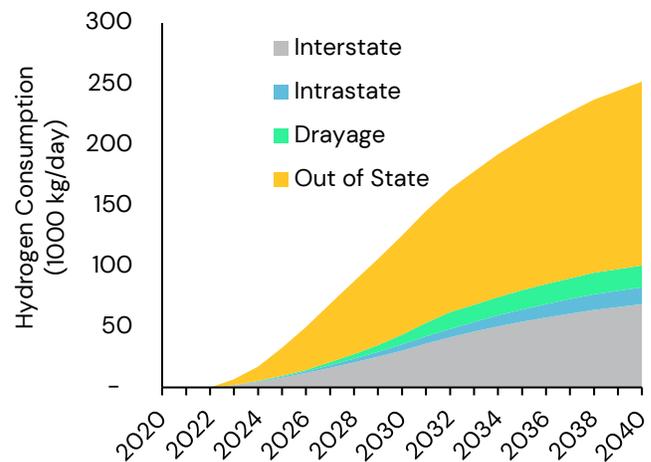
The projected vehicle technology mix, as discussed earlier in Section 4, was used to estimate the shift in charging and fueling demand through 2040, reflecting the displacement of diesel trucks largely by battery and hydrogen powered vehicles. Under the ACF scenario the project team estimated that electricity consumption for Class 8 BETs will increase to ~10,000 MWh per day by 2040. The share of electricity consumption across the five vehicle categories is projected to be relatively similar, with interstate vehicles having the lowest consumption and drayage trucks having the highest consumption. Figure 13 shows the estimated electricity consumption from Class 8 BETs over the timeframe of this analysis.

Figure 13 - Estimated Class 8 Electricity Consumption in LA County



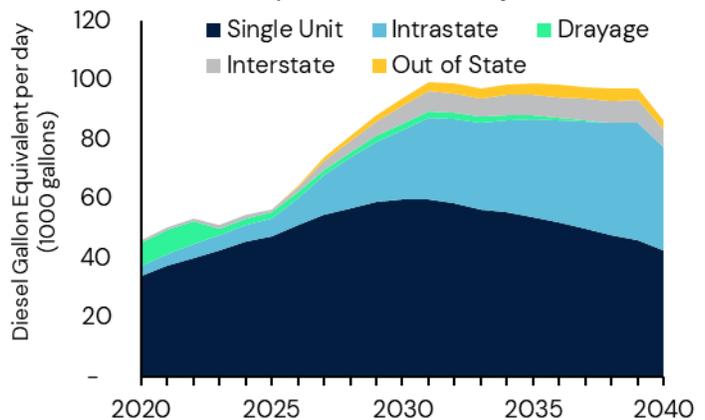
In addition to electricity consumption, the project team also estimated that with the increased adoption of the Class 8 FCETs, there will be a need for up 260,000 kg per day of hydrogen supply in LA County solely for Class 8 trucks. When comparing projected hydrogen consumption across the five vehicle categories, Out of State trucks are expected to consume the majority of hydrogen, followed by interstate trucks. This is no surprise when considering the unique challenges that BETs face with interstate operations, leading hydrogen powered trucks to have a better business case for long-haul operations. Figure 14 shows the estimated hydrogen consumption from Class 8 FCETs over the timeframe of this analysis.

Figure 14 - Estimated Class 8 Hydrogen Consumption in LA County



Similar to electricity and hydrogen, the project team also estimated the increased demand of natural gas (CNG and RNG) resulting from the adoption of low NOx natural gas vehicles in fleets that are currently untouched by the ACF regulation. According to our analysis, natural gas consumption from Class 8 trucks is also estimated to increase (Figure 15) from 50,000 diesel gallons equivalent (DGE) to almost 100,000 gallons in 2030. Single unit and California-registered intrastate trucks are expected to comprise the majority of future natural gas consumption, while California-registered interstate and Out of State trucks are expected to remain at low levels, and natural gas drayage trucks completely phasing out by 2035 due to the ACF requirements.

Figure 15 - Estimated Class 8 NGV Natural Gas Consumption in LA County



The next step of this analysis used the charging and fueling demand above to estimate the number and type of charging and fueling stations required to meet demand. For Class 8 electric trucks it is assumed that each vehicle category, with the exception of Out of State trucks, will exhibit the same fleet distribution as is provided by CARB’s fleet database, that is, the number of fleets which contain certain quantities of trucks (e.g., X fleets contain 10-20 trucks). For charging access, this analysis assumes three types of charging access options for electric trucks: Private, Public (Opportunity/Fast), and Public (Overnight). Charging stations deployed within private depots are assumed to charge trucks overnight for 10 hours. Public (Opportunity/Fast) is defined as publicly accessible charging stations meant to provide fast charging. A charging dwell time of 1 hour is assumed for these chargers. Lastly, public (overnight) is defined as charging stations provided at parking lots or truck stops which allows certain fleets (e.g., owner-operators who do not have access to depot charging) to charge their vehicles overnight for a period of 10 hours.

The project team also made some assumptions regarding the number of trucks that a single charger port (also referred to as a plug) can serve. It is assumed that private charging will have a 1:1 truck-to-port ratio, though it is acknowledged that fleets may be able to increase this ratio and not require a dedicated port for each truck. For public overnight charging, a 2:1 ratio is assumed, and for public fast charging a 6:1 ratio is assumed, based on information from the 2021 report prepared for the Port of Long Beach entitled Fueling the Future Fleet: Assessment of Public Truck Charging and Fueling Near the Port of Long Beach.²⁶

Fifty percent of trucks in California-registered fleets which have 4-10 vehicles and all trucks in fleets with fewer than 4 vehicles are assumed to require public overnight charging; it is assumed that these trucks may be owned by fleets that either do not have a depot to house charging infrastructure or that they have limited facilities and space to develop private charging infrastructure. All Out of State trucks are also assumed to require public overnight charging at

²⁶ Port of Long Beach. (2021, September). Fueling the Future Fleet: Assessment of Public Truck Charging and Fueling Near the Port of Long Beach. <https://polb.com/environment/our-zero-emissions-future/#program-details>

some time; while these trucks may not dwell in LA County overnight in all cases, we assume that the public overnight charging infrastructure will be available to them when needed. All other California-registered trucks are assumed to rely only on private charging infrastructure. Additionally, it is assumed that all Class 8 electric trucks may have a need for public fast charging at some point during their lifetimes. While all trucks may not use public fast charging regularly, we assume that it will be available to all. Of course, this public infrastructure may not be completely public due to security and logistical concerns; arrangements and agreements may need to be established between infrastructure providers and fleets before access is granted. Nevertheless, for the purpose of estimating infrastructure demand, we assume that all trucks may require access to public or semi-public fast charging at some time.

To understand the charger power output levels necessary for accommodating charging demand, we first identified the battery pack sizes of Class 8 electric trucks on the market today and those planned for launch in the near future. Using the average daily vehicle miles traveled (VMT) estimated from EMFAC2021, BET battery pack data from ICF’s EV Model Library²⁷, and the dwell time assumptions described earlier, we estimated the electric vehicle supply equipment (EVSE, also known as the charger) output power level that may be needed for each charging station access type. A full charge is assumed to be from a 20 percent to 80 percent battery state of charge.

Table 1 shows the estimated EVSE output power level for each vehicle category depending on whether a vehicle charges at a public charger, private charger, or a public overnight charging facility.

Table 1 - Estimated EVSE Power Levels (kilowatts, kW) by Vehicle Category and Charger Access Type

Vehicle Categories	Public (Opportunity/Fast)	Private	Public (Overnight)
Out of State	660	-	70
CA Intrastate	250	25	25
CA Interstate	660	70	70
CA Drayage	300	30	30
Single Unit	140	13.8	13.8

Using the estimated power levels illustrated in Table 1, the cumulative number of charging ports by power level was estimated for every 5-year increment as shown in Table 2. In this case, the word cumulative indicates that the number of ports is cumulative by scenario year. For example, 3,832 plugs of chargers that are less than 19.2 kW are estimated to be needed between 2035 and 2040 (12,824 minus 8,992).

²⁷ ICF maintains an up-to-date inventory of current and future electric vehicles, including cost, range, and battery size.

Table 2 – Cumulative (by Scenario Year) Number of Charging Ports Estimated to be Needed for Class 8 Trucks in Los Angeles County, by Power Level and Year

Scenario Year	<19.2 kW	20-30 kW	70-150 kW	250-360 kW	600+ kW	Cumulative Total
2025	638	1,065	799	222	188	2,912
2030	4,735	6,660	3,409	1,388	680	16,873
2035	8,992	16,148	5,829	3,366	1,091	35,426
2040	12,824	19,487	7,569	4,062	1,345	45,286

As is the case for BET charging infrastructure, the scale and type of hydrogen fueling infrastructure required will vary depending on several variables and assumptions. Importantly, as is the case with other fuel types discussed previously, some share of trucks in LA County are expected to rely on hydrogen fueling stations that are private access, some will rely on stations that are public access, and others may use both types of stations. The analysis below does not make any assumptions regarding the share of private- versus public-access stations, and instead shows total infrastructure estimates.

Table 3 shows the estimated demand for hydrogen fuel on any given day based on the technology scenario described in the previous section (note that these numbers are the same as one shown in Figure 14).

Table 3 - Estimated Hydrogen Demand on Any Given Day (kg/day)

Year	Truck Category				Totals
	CA Interstate	CA Intrastate	CA Drayage	Out of State	
2020	0	0	15	0	<u>15</u>
2025	9,446	1,543	642	21,033	<u>32,664</u>
2030	35,766	10,149	6,924	74,371	<u>127,210</u>
2035	63,684	20,247	13,535	113,439	<u>210,906</u>
2040	80,557	28,131	15,386	137,788	<u>261,862</u>

To estimate the number of hydrogen fueling stations, the project team assumed a range of fueling station capacity, and conducted a bounding analysis to estimate the range of fueling stations that may need to be deployed to meet the hydrogen demand from Class 8 FCETs. Specific to this analysis, our project team assumed fueling station capacities ranging from 1,000 to 5,000 kg per day. With that assumption in mind, Table 4 shows the estimated number of hydrogen fueling stations required to meet the demand at various station size scenarios. Naturally, as station throughput increases, the estimated number of required stations decreases. According to the project team estimates, as low as 52 and high as 262 hydrogen fueling stations may be needed to meet the demand from Class 8 trucks in 2040.

Table 4 - Estimated Number of Hydrogen Fueling Stations Depending on Station Throughput

Throughput Capacity in kg/day	Estimated Number of Stations by Year and Scenario				
	2020	2025	2030	2035	2040
1,000	0	33	127	211	262
2,000	0	16	64	105	131
3,000	0	11	42	70	87
4000	0	8	32	53	65
5,000	0	7	25	42	52

As stated previously, some share of hydrogen FCETs are likely to rely on private fueling infrastructure instead of public fueling stations. While the exact number of trucks expected to prefer private infrastructure is unknown,

Table 5 below shows an example of how the number of required public fueling stations would decrease as a result. In this example, we assume that 35% of California-Registered Interstate, Intrastate, and Drayage trucks use public stations, along with 100% of Out of State trucks.

Table 5 - Example of a Partial Need for Public Infrastructure - Estimated Number of Public Hydrogen Fueling Stations Required (100% of Out of State Trucks and 35% of all other California-Registered Trucks Assumed to Require Public Infrastructure)

Throughput Capacity in kg/day	Estimated Number of Stations by Year and Scenario				
	2020	2025	2030	2035	2040
1,000	0	25	93	148	181
2,000	0	13	46	74	91
3,000	0	8	31	49	60
4,000	0	6	23	37	45
5,000	0	5	19	30	36

While the focus of this analysis is primarily on zero emission Class 8 trucks; the project team also assessed the increased demand of natural gas as a result of deployment of low NOx natural gas trucks. According to our analysis, between 19 and 77 natural gas stations may be needed across LA County to meet the projected demand for natural gas refueling, depending on the throughput of the station. As there are currently 82 CNG and LNG stations in LA County, it is expected that these will likely serve a significant portion of demand, however approximately 65% of those stations are private so some public natural gas fueling infrastructure development may be necessary in the future.

Utilizing the estimated number of charging and fueling stations for each technology, the project team estimated the cost for infrastructure deployment between 2025 and 2040 for every 5-year increment. These timeframes were selected to guide the investments needed in the immediate (i.e., 2025), short-term (i.e., 2030), medium-term (i.e., 2035), and long-term (i.e., 2040) timeframes.

The primary costs associated with building charging stations include hardware, installation, permitting, and engineering review and drawings. Further capital costs may include costs associated with land acquisition, electric utility distribution grid equipment upgrades, and upgrades to site-level make-ready infrastructure. It should be noted that installation cost reductions can be realized when installing more than one charging stations per site; however, this assumption was not included in this cost analysis for simplicity. The analysis herein only includes the estimated costs of charging equipment and installation; it does not include the costs associated with land acquisitions, engineering and design, permitting, utility-side electric grid infrastructure upgrades, or site-level make-ready infrastructure upgrades. Importantly, capital costs for charging infrastructure development are likely to be highly variable from one project to the next. The analysis herein is meant to provide a rough estimate of costs using average unit cost data that is publicly available.

Charging station deployment cost estimates were calculated using the cumulative number of charger ports by power level presented earlier in Table 2. It is assumed that 19.2 kW charging stations will incur average Level 2 hardware and installation costs; 20kW to 30 kW stations are assumed to incur low-cost DCFC hardware and installation costs; 70 kW to 150 kW stations and 250 kW 360 kW stations will experience medium- and high-costs, respectively. DCFC with power output exceeding 360 kW do not appear to be commercially available yet. However, cost estimates have been made; costs for DCFC with output power levels exceeding 360 were

assumed to be \$375,000 for hardware and \$175,000 for installation, per a March 2021 report prepared by Gladstein, Neandross, & Associates (GNA) for the Environmental Defense Fund (EDF).²⁸ Actual costs may vary as this technology is made commercially available in the future. Charging stations costs shown in Table 6 are cumulative, showing the total cost by scenario to expand the charging network for Class 8 electric trucks. In this case, the word cumulative indicates that the estimated charging infrastructure costs are cumulative by scenario year. For example, \$33 million of infrastructure investment is estimated to be required between 2035 and 2040 for chargers that are less than 19.2 kW in output power (\$90 million minus \$63 million).

Table 6 – Cumulative (by Scenario Year) Charging Infrastructure Costs (million \$)

Scenario Year	<19.2 kW	20-30 kW	70-150 kW	250-360 kW	600+ kW	Total
2025	\$4	\$18	\$57	\$40	\$103	\$222
2030	\$33	\$110	\$242	\$251	\$374	\$1,010
2035	\$63	\$266	\$414	\$609	\$600	\$1,953
2040	\$90	\$322	\$537	\$735	\$740	\$2,424

The estimated total charging infrastructure investment need for both private and public infrastructure is estimated to be \$222 million in 2025, \$1.01 billion in 2030, \$1.953 billion in 2035, and \$2.424 billion in 2040, cumulatively. Table 7 shows a breakdown of estimated costs in 2040 by charger output power level and by charger access type. These estimates suggest that approximately 62% of the total investment need is for public-access opportunity/fast chargers, 21% for private chargers, and 16% for public-access overnight chargers.

Table 7 Estimated BET Charging Infrastructure Costs in 2040 (million \$)

Charger Output Power Level	Public (Opportunity/Fast)	Private	Public (Overnight)	Totals
<19.2 kW	\$-	\$67	\$23	\$90
20-30 kW	\$-	\$241	\$81	\$322
70-150 kW	\$190	\$122	\$225	\$537
250-360 kW	\$735	\$-	\$-	\$735
600+ kW	\$740	\$-	\$-	\$740
Totals	\$1,665	\$430	\$329	\$2,424

The cost of hydrogen fueling stations, as mentioned above, does not make any assumptions for how many stations are private versus those that are publicly accessible. Instead, it only reports the estimated cost associated with the number of stations based on projected demand for hydrogen across truck categories. *Table 8* shows the estimated capital cost to build the stations. These estimates show potential cost reductions through economies of scale; as the daily throughput of the stations increases, the total estimated cost to build the stations decreases. Importantly, stations of various sizes and capacities will be needed throughout Los Angeles

²⁸ Gladstein, Neandross, & Associates. (2021, March). California Heavy-Duty Fleet Electrification Summary Report. In Environmental Defense Fund. Retrieved from <https://blogs.edf.org/energyexchange/files/2021/03/EDF-GNA-Final-March-2021.pdf>

County. As illustrated, by 2040, there is estimated to be a need for as low as \$520 million and as high as \$1.3 billion in investment to deploy private and public hydrogen fueling stations.

Table 8 - Estimated Hydrogen Station Capital Costs Under Various Scenarios

Throughput Capacity in kg	Capital Cost Scenario	Estimated Hydrogen Station Capital Costs (in Millions)				
		2020	2025	2030	2035	2040
1,000	Low	\$0	\$165	\$635	\$1,055	\$1,310
2,000	Low	\$0	\$80	\$320	\$525	\$655
3,000	Medium	\$0	\$83	\$315	\$525	\$653
4,000	High	\$0	\$80	\$320	\$530	\$650
5,000	High	\$0	\$70	\$250	\$420	\$520

Altogether, our analysis indicates an estimated need for capital investment on the order of \$2.9 – \$3.7 billion by 2040 to deploy the needed zero emission infrastructure in LA County. The next section will describe the current incentive and grant programs available at the state and local level that could be leveraged to accelerate the adoption of both the vehicles and the needed charging and fueling infrastructure.

\$2.9 – 3.7 Billion
 Needed Investment for
 Zero Emission Infrastructure

6 Incentives & Grants

While policy actions such as ACT and ACF are key in accelerating the adoption of zero emission trucks in California, the full transition of California's Class 8 trucks to zero emission technology will not be possible without financial incentives. As described, current regulations, such as ACF, are primarily targeting public, drayage, federal, and high priority fleets, while smaller fleets that do not fall into any of these categories may be left unregulated. Additionally, California's regulations are only focusing on vehicle adoption, whereas the previous section made clear to the significant need to prepare and build charging and fueling infrastructure needed to support these vehicles. This is where incentive programs could play a significant role in facilitating this transition. Notably, California has already established several incentive programs that have been instrumental in facilitating the adoption of low-NOx and zero emission vehicles. Many of these incentives have been developed and administered by local and state agencies, such as CARB, CEC, and South Coast AQMD. This section describes a number of these programs. A list of the incentive programs that apply to Class 8 trucks and zero emissions infrastructure in LA County is provided in Table 9.

Hybrid and Zero Emission Truck and Bus Voucher Project (HVIP)

 HVIP is a point-of-sale incentive program that provides a voucher up to \$120,000 for zero emission Class 8 trucks or trucks with low-NOx diesel engines. At the time of writing this report, the program has supported the purchase of 1,700 natural gas and 1,500 battery-electric trucks since 2010, and over half of all voucher requests have come from disadvantaged communities seeking DPM reductions. Although HVIP has provided much needed resources for adopting clean technologies, it is one of California's most oversubscribed programs, a key issue especially for smaller fleets that do not have the resources to quickly apply for these grants and use them to transition their trucks to clean technologies. Additionally, HVIP cannot be stacked with other State-funded incentives, such as Carl Moyer.

Carl Moyer Program, Carl Moyer Voucher Incentive Program (VIP)

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) provides incentives for cleaner-than-required on-road and off-road diesel engines and equipment. The program has focused on deploying the most advanced low-NOx and zero emission technologies and generates surplus emission reductions through their vehicle scrappage requirement. To date, about \$210 million has been allocated to on-road projects, which has resulted in replacement of 7,800 diesel engines across CA, eliminating more than 25,000 tons of NOx and volatile organic compounds (VOC) and 680 tons of DPM. Since the Carl Moyer program considers cost-effectiveness to calculate the amount of funding that can be allocated to projects, and conventional combustion trucks become cleaner over time, the lower emissions benefits have led to lower grant awards. Additionally, the scrappage requirement instills some aversion in fleet owners, especially small fleets, who lack resources to apply for funding and would prefer to sell old trucks rather than scrap them.



Additionally, the Carl Moyer VIP offers a streamlined funding option directed exclusively to smaller fleets with 10 vehicles or less to purchase cleaner vehicle replacements. Similar to the Carl Moyer

Program, zero emission projects in the VIP are eligible for a cost-effectiveness limit of up to \$500,000 per weighted ton and projects meeting the 0.02 g/bhp-hr or cleaner emission standard are eligible for a cost-effectiveness limit of up to \$200,000 per weighted ton.

Volkswagen Environmental Mitigation Trust for California

The Volkswagen (VW) Mitigation Trust provides capped funding opportunities to mitigate NOx emissions from heavy-duty trucks and support zero emission truck transitions at the Ports. The VW Trust offers up to \$85,000 in funding for Class 8 low-NOx trucks and up to \$200,000 for Class 8 zero emission trucks, including drayage trucks, waste haulers, dump trucks, and concrete mixers. Public and private fleets are subject to different eligibility criteria for replacement of current trucks for low-NOx and zero emission vehicles. Additionally, the VW Trust requires scrapping of the existing vehicle, and does not permit stacking other state-level funds.



Truck Loan Assistance Program

The Truck Loan Assistance Program offers financing opportunities to qualified small-business truckers who fall below conventional lending criteria and are unable to qualify for traditional financing for cleaner trucks. The loans are accessible to smaller fleet owners – trucking fleets with 10 or fewer heavy-duty vehicles and with less than \$10 million in annual revenue – to provide them with funding for low-NOx and zero emission technologies in compliance with the Truck and Bus rule. Loans from this program can be used to finance either one or multiple technologies, and loans can be combined with other incentive programs. According to CARB’s Draft 2022-2023 Funding Plan, as of May 13, 2022, about \$203 million in Truck Loan Assistance Program funding had been expended to provide about \$2.5 billion in financing to small business truckers for the purchase of over 39,500 cleaner trucks, exhaust retrofits, and trailers.

Clean Transportation Program

The CEC’s fuel and transportation portfolio includes public and private infrastructure development funding, planning grants, and workforce training to prepare workers for the clean transportation economy. As of December 2021, the CEC has invested more than \$1 billion in clean transportation projects, including charging and fueling infrastructure, advanced vehicle technologies, and workforce training. As part of the draft funding allocations for FY 2022-23, CEC has allocated more than \$160 million to support MD/HD ZEV infrastructure to address the need for rapid transition to ZE technologies across the state. Of this, \$30 million will be allocated to MD/HD ZE vehicles and infrastructure (Level 2 and DCFC), \$85 million is earmarked for drayage, \$30 million for transit, and \$15 million for school buses. Also in FY 2021-22, CEC allocated \$390 million for MD/HD vehicles, of which \$105 million was earmarked for drayage and infrastructure pilots, \$28.5 million for transit, and \$19 million for school buses.



Southern California Edison (SCE) Commercial EV Programs



SCE administers grant assistance and low-to no-cost electrical system upgrades to its customers. SCE's Transportation Electrification Advisory Services provides small- to mid-sized fleets (50 vehicles or fewer) with hands-on support in identifying and submitting applications for funding zero emission fleet transitions. To continue to support fleets as they prepare for

incoming zero emission vehicles, SCE's Charge Ready Transport Program provides make-ready charging infrastructure to support the installation of EV charging equipment for MD/HD vehicles. The Charge Ready Transport Program has an approved budget of \$342.6 million and a goal to enroll and support a minimum of 870 sites with 8,490 EVs procured or converted to electric. As of December 31, 2021, the Program was working with 139 sites, which includes applications under review as well as committed sites, that can potentially support over 4,200 MD/HD EVs.

LADWP Commercial EV Charging Station Rebate Program

LADWP is also offering its non-residential customers rebates for installation of EV charging infrastructure. This program, which is called the Commercial Electric Vehicle Charging Station Rebate Program, incentivizes the installation of EV charging station equipment, including Level 2 charging stations to charge light-duty EVs, DCFCs to charge light-duty EVs, and alternating current (AC) or direct current (DC) charging stations to charge MD/HD EVs. The program is open to all LADWP commercial customers operating a site (premises) with an active LADWP electric meter on a non-residential rate schedule. LADWP customers who receive these rebates must agree to keep charging stations in service for a minimum of five years. For MD/HD, the program currently pays up to \$125,000 per charging station with a maximum of \$500,000 per site.

Low Carbon Fuel Standard (LCFS)

The California LCFS is a regulatory program intended to reduce the carbon intensity of transportation fuels used in California via a credit trading system. As such, the program offers fleets the opportunity to earn revenue that can be put toward the operating costs of non-residential EV charging and hydrogen fueling stations. This is because EV chargers and hydrogen fueling stations deliver a low-carbon fuel to vehicles, and therefore, owners of chargers and hydrogen stations are eligible to earn LCFS credits based on the amount of fuel (electricity) dispensed. These credits may then be sold to fuel producers (who, under the program, must reduce the carbon intensity of their fuels or offset carbon by purchasing credits), yielding revenue that fleets can use to lower the costs of operating their electric and hydrogen trucks.

Table 9. Summary of Incentive Programs for Class 8 Trucks

Program	Incentive Structure	Eligibility	Funding Amount for Class 8 trucks
HVIP	Point-of-sale	Zero Emission or 0.01 g/bhp-hr engines	\$120,000 (Base)
Carl Moyer	Cost-effectiveness limit	Clean combustion and Zero emissions Requires scrappage	Up to \$160,000 for 0.02 engines Up to \$410,000 for ZE trucks
Carl Moyer VIP	First come first served	Fleets of 10 or fewer vehicles that have been operating at least 75% (mileage-based) in California during the previous 24 months	Up to \$160,000 for 0.02 engines Up to \$410,000 for ZE trucks
Community Air Protection (CAP) Incentives	Same as Moyer with no state caps for zero emission trucks	Follows Moyer guideline	Up to \$160,000 for 0.02 engines Determine based on C/E for ZE trucks
VW Mitigation Trust	First come first served	Class 8 Freight Trucks (including drayage trucks, waste haulers, dump trucks, and concrete mixers) – Public and private	Up to \$85,000 for 0.02 engines Up to \$200,000 for zero emission trucks
Truck Loan Assistance	Financing Assistance	Trucking fleets with 10 or fewer heavy-duty vehicles that are also designated as small business	Varies
ZE Drayage Truck & Infrastructure	Competitive solicitation	freight facilities qualify for the project including warehouses, distribution centers, sea/rail ports, intermodal, border points of energy, and other freight facilities	Funded both vehicles as well as charging infrastructure. A minimum of 50% of match funding is required (i.e., only pays up to 50% of the project cost). Maximum of \$500,000 per truck.
Clean Transportation Program	Competitive solicitation Block Grants First come first served	Public and private fleets of MD/HD vehicles as well as public charging and hydrogen fueling station developers	Between 50 – 75 percent of the project cost

Program	Incentive Structure	Eligibility	Funding Amount for Class 8 trucks
LADWP Commercial EV Charging Station Rebate Program	Rebates for charging station installation	LADWP commercial customers operating a site (premises) with an active LADWP electric meter on a non-residential rate schedule	Up to \$125,000 per charger with a maximum of \$500,000 per site.
Southern California Edison Grant Assistance	Grant Assistance	Small and mid-size fleets (<50 vehicles)	Provide grant assistance to small and mid-size fleets
Southern California Edison Charge Ready Transport	Make-Ready Rebates	Fleets of MD/HD vehicles who procure or convert at least two zero emission vehicles; SCE customer	Provide low-to no-cost electrical system upgrades and charging equipment rebates for customers procuring school or transit buses or for non-Fortune 1000 customers deploying infrastructure at sites located in disadvantaged communities. Customer-side of the meter make ready rebates will be the lesser of (a) 80 percent of the Participant's actual installation cost or (b) 80 percent of the average utility direct cost for installing the customer side make-ready infrastructure for the relevant sector.
LCFS	Credit based program	Non-residential EV charging and H2 fueling stations	Number of credits earned x Credit price

7 Barriers and Recommendations

This report has illustrated that full transition to zero emission Class 8 trucks in LA County is not trivial. Despite regulatory actions at the state level, combined with billions of dollars of incentive funding earmarked for zero emission heavy duty vehicles and infrastructure, there still exists significant barriers to full transition of more than 55,000 Class 8 trucks operating in LA County to zero emissions. As illustrated using the assumptions and scenario conditions outlined in this report, by 2040, the total number of charging ports required to meet demand from all Class 8 BETs is estimated to grow to more than 45,000 charging ports, of which approximately 26,000 may be located at private truck depots, 11,000 may be public ports for overnight charging, and more than 8,000 may be public ports for opportunity fast charging. According to the project team's estimates, deployment of such charging infrastructure could cost more than \$2.4 billion. A total of 52 (if assuming 5,000 kg/day/station) to 262 (if assuming 1,000 kg/day/station) hydrogen fueling stations (public and private) are estimated to be required by 2040 to meet Class 8 FCET demand. These hydrogen stations are estimated to have a capital cost between \$520 million and \$1.31 billion by 2040. Note that this only includes the cost of equipment and equipment installation; it does not account for the cost of land acquisition, design and engineering, permitting, or grid and site-level make-ready infrastructure upgrades. Aside from charging and fueling infrastructure, the lack of currently available zero emission truck models and their significantly higher upfront cost as compared to their counterpart diesel and natural gas trucks is another significant barrier inhibiting the accelerated adoption of these vehicles, especially by smaller fleets. Here in this section, we will highlight some of these barriers and provide recommendations on the actions that various agencies and stakeholders can take to help overcome them.

Availability and High Cost of Zero Emission Technology

Despite the current and expected near-term availability and benefits identified across zero emission Class 8 truck options, vehicle acquisition remains a challenge. High upfront costs for battery-electric trucks, FCET, and associated infrastructure are commonly cited as a primary barrier to increased deployment. A report produced by ICF for the CalETC found that as of 2019, the average battery-electric truck is \$312,000, which is \$177,000 more than its average diesel truck counterpart and \$147,000 more than its average natural gas counterpart. Additionally, the average FCET is reported to be \$440,000, which is \$305,000 more than its average diesel truck counterpart and \$275,000 more than its natural gas truck counterpart. Another significant barrier to adoption of clean truck technologies is the relatively recent onset of supply chain disruptions, delivery timelines, and inflationary pressures because of the COVID-19 pandemic and other geopolitical disruptions.



As described in Section 6, California offers a suite of incentive programs that provide funding towards the purchase of zero emission trucks, replacement of older diesel vehicles with cleaner technology and buildout of zero emission infrastructure. These funding programs have been instrumental in reducing the incremental cost of zero emissions trucks. However, despite significant investment by the State (almost \$5.2 billion over four budget years for MD/HD trucks), the funding needed to fully transition the state's MD/HD trucks to zero emission and buildout of

the necessary charging and fueling infrastructure to support them is much greater. Gaps in funding aside, larger fleets have a greater advantage in applying and procuring grants than smaller fleets. Small fleets represent approximately 30% of California’s trucks, and yet they may have more challenges in transitioning to zero emission technologies using the current incentive portfolio. For example, incentives received from Carl Moyer are subject to federal and state income tax, reducing purchasing power. As another example, HVIP offers a point-of-sale incentive to lower the cost of MD/HD vehicles, but sales tax is assessed based on the pre-voucher price of each vehicle. For zero emission trucks with considerably higher retail prices than diesel or natural gas trucks, these sales taxes also add to the cost burden experienced by the vehicle owners. Adding on top of these challenges is the accessibility and cost of charging and fueling infrastructure. While a large fleet might have the ability to install chargers within their depot and utilize the revenue from the LCFS program to reinvest into EV purchases or EV infrastructure deployment, an owner-operator that does not own or lease a private depot would not have access to such revenues, due to their lack of private facilities at which to install the infrastructure.

Recommendations



Leverage Public-Private Partnership Models: P3s involve a private partner who will finance initial capital costs of ZEV procurement or charging/fueling infrastructure, with private debt and equity, and receive returns on initial investment overtime once charging stations or vehicles are available for use.

P3s have been proven to be effective tools for rapid delivery of infrastructure projects and increasing the opportunities for innovation. There is a broad range of P3 delivery models with varying levels of public agency participation and risk transfer. Engaged stakeholders and end users could leverage the existing P3 procurement as well as vehicle and infrastructure as-a-service models (e.g., WattEV in POLB) to facilitate and speed up deployment of public fueling and charging infrastructure across major freight corridors (e.g., I-710) and accelerate the adoption of zero emission trucks within LA County.

Simplify existing structures of incentive and grant programs: As state agencies, such as CARB and CEC, examine options to offer greater funding opportunities to fleets, the project team’s findings suggest that these programs have room for improvement by being more user friendly, particularly to enhance accessibility of these funds to small fleets. A study²⁹ found that while most fleets had used incentives in the past, their overall experience was inconvenient and administratively complex. If given a choice of just one government program to incentivize electric trucks, 38% of respondents said they would prefer no government incentive program. Those same respondents never chose an electric truck in their choice scenarios, and more than 50% of the study’s respondents expressed that low-interest loan or lease options and purchase price rebates are preferable. Importantly, the study’s authors stated that they had difficulty securing survey participants, and suggested that the respondents may be skeptical of electric trucks. These



²⁹ Giuliano, G., Dessouky, M., et al. (2020). *Developing Markets for Zero Emission Vehicles in Short Haul Goods Movement*. National Center for Sustainable Transportation: <https://rosap.ntl.bts.gov/view/dot/57579>

findings suggest that owner-operators seek simpler incentive programs, as well as multiple options for vehicle or infrastructure payment plans.



Provide technical assistance to small fleets: Similar to the owner-operator grant assistance program offered by SCE (which is only limited to SCE customers), a program that offers technical assistance in the form of grant application assistance, as well as post-grant activities such as contract execution and reporting, would be a value proposition to smaller trucking fleets as they apply for various state grants and incentives. Most of these smaller fleets and owner-

operators may not have the essential resources to apply to these grants. Evaluation of end user perspectives reinforced that costs associated with ZEVs and infrastructure installation are the largest barriers to fleet transition. One opportunity for engaged stakeholders is to identify specific small truck fleet owners who are interested in procuring public/private BET charger rebates at the city-level (Los Angeles, Long Beach, Carson, Wilmington, etc.), and explore ways to offer technical assistance so that they can also pursue state grants and incentives towards zero emission vehicles. This could potentially lead to a prioritization queue based on proximity or impact to disadvantaged communities, working to increase charger access and ease air pollution burdens more quickly.

Access to Fueling and Charging Infrastructure

There are significant infrastructure deployment gaps that require more targeted consideration. LA County's Class 8 truck population is expected to transition from being fueled almost entirely by diesel, to a mix of conventional and low-NOx diesel, low-NOx natural gas, battery-electric, and hydrogen. The rapid deployment of Class 8 battery-electric trucks is expected to increase the electricity demand associated with these vehicles to 10,000 MWh per day by 2040. For Class 8 FCETs in LA County, hydrogen demand is expected to increase to nearly 250,000 kg per day by 2040. To fulfill the Class 8 truck electricity demand, it is estimated that there may need to be over 45,000 mixed types of electric charging ports added to the existing electric grid by 2040, which could cost more than \$2.4 billion. To fulfill the Class 8 truck hydrogen demand, it is estimated that there may need to be between 52 through 262 hydrogen stations added (depending on station throughput), which could cost between \$520 million and \$1.3 billion. In other words, in just LA County, it is estimated to cost between \$2.9 - \$3.7 billion to develop charging and fueling infrastructure by 2040, not including costs of land acquisition, grid upgrades, site-level make ready infrastructure development, design and engineering, or permitting. Additionally, site permitting and land acquisition for all the new infrastructure could significantly hold up infrastructure deployment.

7.1.1 Recommendations

Create public-access overnight charging lots for small fleets: One of the main concerns raised in the fleet perspectives research and the 710 ZE Truck Working Group is the challenge associated with smaller fleets and small businesses securing overnight charging sites. These small fleets may not have dedicated depots and will most likely rely on public charging/fueling infrastructures once they transition to ZE technologies. Currently, almost one third of Class 8 trucks registered in California belong to fleets of 1 – 3 vehicles, which will likely need to rely on overnight public charging infrastructure to meet their daily demands. This is a sizable need to be



addressed. Identifying mechanisms to provide public overnight charging lots for smaller fleets without depots is a critical element to a successful transition to Class 8 BETs. This approach would more directly address local, short-term needs for smaller fleets within LA County. For the long-term, LA Metro may consider coordinating with other major freight centers outside of LA County to determine how they can support the eventual deployment of regional and long-haul ZE trucks through strategically located and sized charging and fueling infrastructure. Discussions with other entities in the Western U.S. may yield opportunities to indirectly meet state air quality and climate goals, particularly where accelerated ZEV truck adoption would enable these facilities to generate LCFS credits or secure private investor funding.

For the near-term, prioritize key drayage and short-haul corridors for siting charging and fueling infrastructure, such as the I-710. To enable this, streamline permitting, site development requirements, and land acquisition requirements:

One of the significant issues which could bottleneck charger and fueling infrastructure deployment revolve around permitting processes and land acquisition. Every day, approximately 25,000 heavy-duty trucks travel



near the I-710 freeway, many of which are drayage trucks, especially between the port and SR-91 intersection. Considering that drayage trucks are expected to be among the first sectors of Class 8 trucks to undergo the transition to EVs (as a result of ACF regulation), building charging infrastructure across the I-710 corridor should be a high priority. Building public charging infrastructure would entail many elements including land acquisition, site readiness, equipment installation and operation. Because these processes involve multiple entities including landowners, fleet owners and operators, cities, and utilities, improving existing processes to streamline and eliminate inefficiency would be paramount to realizing the needed infrastructure implementation in a timely manner.

Long Beach-East Los Angeles Corridor Zero Emission Truck (ZET) Program Status Update

Planning and Programming Committee

June 14, 2023

File #2023-0294

Recommendations

- A. AUTHORIZE the Chief Executive Officer to program up to \$3 million of the Board authorized \$50 million seed funding programmed for the LB-ELA Corridor ZET Program as Metro's contribution to leverage federal and regional funds contingent upon the demonstration of full project funding.
- B. RECEIVE AND FILE report on updates for the Long Beach-East Los Angeles (LB-ELA) Corridor Zero Emission Truck (ZET) Program.

Recommendation A

- Metro's policy objective: Leverage \$50 million in Board-approved seed funding (Hahn/Dutra, October 2021) to develop a Zero Emission Truck (ZET) Program within the LB-ELA Corridor with the goal of reaching a \$200 M funding target.
- Metro's ZET Working Group recommends the use of these funds to implement ZET charging/fueling Infrastructure as a short supply of supporting infrastructure would inhibit heavy-duty ZET adoption.
- LA Cleantech Incubator identified a site on Port of LA property for a ZET charging depot.
 - Estimated project cost is \$15 M.
 - Leverages \$1.5 M earmark from Rep. Barragan (CA-44).
 - Remaining funds: Port of LA / private source(s)
- Funding Source: Congestion Mitigation and Air Quality (CMAQ) Improvement funds
 - CMAQ will be from additional capacity beyond that allowed for transit operations per Board policy.

Recommendation B: LB-ELA ZET Working Group Updates

- LB-ELA ZET Program Principles and Preliminary Performance Measures
- Strategy for reaching \$200 M funding target: Immediate opportunities and project development
- Understanding the existing and anticipated demand for heavy-duty vehicle charging / fueling
 - Statewide demand: California Air Resources Board on the Advanced Clean Fleets Rule
 - LA County demand: Clean Truck Technology Comparative Report
 - LB-ELA Corridor demand: LACI I-710 Investment Blueprint for Heavy-Duty Charging Depots
- Data: Heavy-duty truck market segments and travel patterns
- Understanding freight industry operational needs for charging and fueling infrastructure
- Understanding community needs and desirable outcomes
- Investing in workforce development

Next Steps

- Potential near-term opportunities to leverage Metro funding
 - Mobile Source Air Pollution Reduction Review Committee (MSRC)
 - Federal Charging and Fueling Infrastructure (CFI) Discretionary Grant Program
 - A tri-state application with Oregon & Washington led by CEC/Caltrans
 - Three sites within the LB-ELA Corridor included
 - If the LB-ELA Corridor projects received funding, Metro staff would seek Board approval to program seed funding towards those projects.
 - State SB1 Trade Corridor Enhancement (TCEP) Program FY2024 cycle and FY2026
 - Federal Infrastructure for Rebuilding America (INFRA) program, future CFI cycles
- Feasibility study to address infrastructure needs beyond immediate demand and develop preliminary concepts.



Board Report

File #: 2023-0202, File Type: Motion / Motion Response

Agenda Number: 13.

PLANNING AND PROGRAMMING COMMITTEE JUNE 14, 2023

SUBJECT: MEASURE M 3% LOCAL CONTRIBUTION ADDITIONAL GUIDELINES REVISIONS

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING a report back on Motion 10.1 (Attachment A); and
- B. AUTHORIZING for public review and comment the release of the revised Measure M Guidelines, Section VIII - 3% Local Contribution to Major Transit Projects (Attachment B).

ISSUE

In February 2023, the Board approved several revisions to the Measure M Guidelines (Guidelines) and requested additional revisions and analysis via Motion 10.1 by Directors Hahn, Dutra, Butts, and Sandoval (Attachment A). This report presents the analysis, and requests approval to release newly revised draft Guidelines for public review and comment, per the Board approved Measure M Guidelines.

BACKGROUND

The Measure M Ordinance (Ordinance) requires local jurisdictions to pay three percent (3%) of the total cost of new major rail projects. The Measure M Guidelines adopted by the Board in 2017 (File# 2017-0280) guide Metro's implementation of this requirement. In April 2022, Motion 35 by Directors Hahn, Garcetti, Butts, and Dutra (Attachment C) requested that staff make several revisions to the Guidelines to for consistency and flexibility. Following public review, the Board approved these revisions in February 2023 and requested additional changes and analysis through Motion 10.1.

DISCUSSION

Guideline Revisions

Motion 10.1, Directives A, B, D, and E requested that staff make further revisions to the Guidelines. These revisions are summarized as follows, and are reflected in Attachment B.

- Directive A requested that the Guidelines clarify that jurisdictions owing a 3% contribution may receive credit for eligible improvements or actions taken by neighboring non-contributing jurisdictions. This would allow, for example, a jurisdiction to receive credit for qualifying First Last Mile improvements made by another jurisdiction along a corridor. This flexibility is already allowed, is consistent with the Ordinance, and has been added to the “Eligible Fund Contributions” section of the guidelines for clarity. The financial impact of this existing flexibility, to the extent that it incentivizes additional FLM improvements, will be a reduction in Metro’s ability to collect cash contributions in cases where a neighboring jurisdiction’s FLM improvement is the owing jurisdiction’s creditable contribution. This will increase the funding gap for the major project by the cost of the FLM improvement. Per the Guidelines, all other in-kind contributions must be included in the scope of work for the major project by 30% design.
- Directive B requests that eligible fund sources include Metro competitive grants, which were previously not allowed per the Guidelines. Allowing jurisdictions to use Metro competitively awarded grant funds would have no negative financial impact on the funding plan for the project, and the Guidelines have been revised accordingly.
- Directive D requests that the Guidelines clarify that projects separate from the current operable segment, or project elements added after 30% design, would not impact the contribution owed for the current operable segment. This approach is consistent with the Ordinance and several scenarios have been added to the “Program Methodology” section of the revised Guidelines for clarity.
- Directive E requests that the Guidelines clarify that potential contributions implemented by jurisdictions prior to 30% design may count toward their contribution. This flexibility is already allowed, is consistent with the Ordinance and has been added to the “Eligible Fund Contributions” section of the guidelines for clarity. In some cases, this flexibility could extend to improvements made by jurisdictions well in advance of the transit project. When Metro treats these improvements as creditable elements of the transit project scope rather than baseline conditions, the resulting financial impact will increase the funding gap for the major project in the amount of the previously completed eligible improvement.

The above changes and clarifying revisions to the Guidelines will be circulated to the public via mass email for a 30-day review period beginning June 23, 2023. Any comments received will be incorporated as needed into the final Guideline revisions which will be presented for Board consideration and approval in September 2023. Accompanying the revised Guidelines is an updated 3% Contribution Fact Sheet (Attachment D).

Analysis of Excluding Regionally Significant Project Elements

Directive C in Motion 10.1 requested that staff “evaluate a way to exclude the costs associated with regionally significant project elements - such as a new I-105 C Line station on the C Line (Green) or a Maintenance and Storage Facility (MSF) on the Gold Line Eastside Phase 2 - from the total project’s cost’s 3% local contribution calculation.” While the request for this analysis does not make any immediate changes to the Guidelines, the effect of ultimately implementing this change would be far-

reaching with significant financial and schedule impacts. If the Board requests additional changes to the Guidelines in this area, it may impact Metro's ability to collect contributions for several eligible projects, which would delay this necessary financial support and potentially delay project delivery.

The Measure M Ordinance applies the 3% contribution requirement to the "total project cost" for all projects coded "T" in the Expenditure Plan. The total project cost would include all elements of the rail corridor project, such as stations, guideways, traction power, and maintenance and storage facilities. The Ordinance also gives the Board discretion to apply, or not apply, the sales tax withholding remedy in situations where a jurisdiction does not fulfill the contribution obligation. Through this discretion, the Board could exclude all or portions of the capital project from the 3% contribution cost basis. Excluding elements of the project would negatively impact project financing, creating a funding gap and potential schedule delay if new funding sources need to be developed to cover the gap.

Specific to the Board's request, Metro has not previously defined a category of regionally significant project elements and suggests a new definition consistent with Motion 10.1 to include major capital facilities integral to corridor construction that are intended to serve multiple rail lines. This would include rail station construction at intersecting lines where neither line has an existing station, and MSFs intended to serve multiple lines. Metro evaluated projects in the Expenditure Plan and found three regionally significant project elements that could potentially be excluded:

- C Line infill station construction (\$75M-\$150M);
- Eastside Phase II MSF (\$700M-\$1.8B); and
- Airport Metro Connector (\$701M).

The C Line infill station and Eastside Phase II MSF were identified in Motion 10.1. While the Airport Metro Connector is a stand-alone project, it would likely fall within the definition of a regionally significant project element. Metro reviewed the Expenditure Plan and found no other reasonably foreseeable projects that might include regionally significant project elements.

With this information, Metro estimates that excluding the above project elements would reduce the local contribution by \$44.3M to \$79.5M. This would result in significant savings for jurisdictions but would also create a funding gap for which Metro would need to seek other funding which could also result in schedule delays. Metro does not recommend excluding these facilities due to financial constraints and schedule delays. Note, however, that Metro will explore opportunities to allocate part of the cost of these facilities to the other projects or rail lines that they serve. This approach recently resulted in costs for the Southwestern Yard being allocated to both the K Line and the C Line, reducing the 3% local contribution for the K Line accordingly.

DETERMINATION OF SAFETY IMPACT

The proposed approval will not have any adverse safety impacts on employees or riders.

FINANCIAL IMPACT

Approving the recommendations, including the proposed changes to the Guidelines, will have no impact on the FY 2022-23 Budget. The Guideline's existing flexibility related to Directives A, B, D, and E reduce Metro's ability to receive cash contributions from local jurisdictions, which increases Metro's forecasted capital project funding gaps. In addition, as noted above, excluding certain regionally significant project elements from the 3% contribution cost basis would result in significant funding gaps and associated delays as new funding sources would need to be developed.

EQUITY PLATFORM

The substantive changes resulting from this action include expanding eligible funding sources to include Metro competitive grant funds. This will provide additional flexibility to jurisdictions owing a 3% contribution, including those within Equity Focus Communities (EFCs), which is intended to support jurisdictions with fewer financial resources. The remainder of the revisions to the Guidelines clarify existing practices and enhance consistency of current policy with the Measure M Ordinance, and therefore have no impact on equity opportunities. The 3% local contribution is one of the financial resources supporting Metro's major rail transit projects program in the Measure M Expenditure Plan. These projects will benefit communities by adding new high-quality reliable transit services, many of which will increase mobility, connectivity, and access to opportunities for historically underserved and transit-dependent communities. Metro will continue to conduct outreach and provide technical assistance on the 3% contribution requirement to affected jurisdictions, including assisting with identifying viable financing strategies. Staff will also analyze how each project might impact equity and Equity Focus Communities. These analyses will be included in future Board items (e.g. notifying the Board of the 3% contribution amount by jurisdiction based on 30% design) on a project-by-project basis.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation 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 could elect not to authorize releasing the draft revised Guidelines for public review. This is not recommended as the proposed revisions resulted from Board direction and will increase the level of clarity the Board has requested within the Guidelines.

NEXT STEPS

The draft revised Guidelines will be circulated for public review and comment beginning June 23, 2023 via mass email, notification via Metro's The Source, and website posting until July 24, 2023. After incorporating public comment, the final revisions to the Guidelines will be presented for Board approval in September 2023.

ATTACHMENTS

Attachment A - Motion 10.1

Attachment B - Measure M 3% Local Contribution Guidelines Draft Revisions

Attachment C - Motion 35

Attachment D - 3% Contribution Fact Sheet

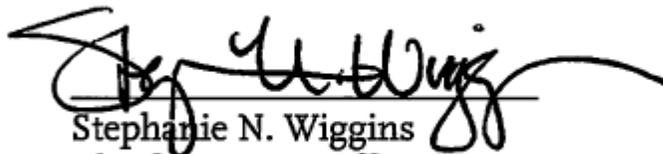
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Metro

Board Report

File #: 2023-0104, File Type: Motion / Motion Response

Agenda Number: 10.1.

**EXECUTIVE MANAGEMENT COMMITTEE
FEBRUARY 16, 2023****Motion by:****DIRECTORS HAHN, DUTRA, BUTTS, AND SANDOVAL**

Related to Item 10: Measure M 3% Local Contribution Guidelines Revisions

In response to Metro Board direction (File No 2022-0258), Metro staff have undertaken substantial revisions to the Measure M guidelines, specific to the 3% Local Contribution requirement for transit capital projects. Staff's proposed guidelines (File No. 2022-0828) incorporate requests from jurisdictions to increase flexibility, provide more opportunities for in-kind contributions, and further incentivize the first-/last-mile investments that will make these major transit investments in our region more successful.

While the revisions represent a welcome change to those originally drafted and approved in 2017, there are still some clarifications that should be offered in order to fully address concerns from jurisdictions that welcome the future transit capital investments and want to ensure they are fully engaged and able to participate.

SUBJECT: MEASURE M 3% LOCAL CONTRIBUTION GUIDELINES REVISIONS MOTION**RECOMMENDATION**

APPROVE Motion by Directors Hahn, Dutra, Butts, and Sandoval that the Board direct the Chief Executive Officer to make the following revisions to the proposed Local Contribution guidelines:

- A. Add language to allow cost-sharing, so that jurisdictions who have qualifying first-/last-mile or in-kind improvements, but do not have a 3% local contribution requirement, can credit those investments they make toward neighboring jurisdictions' 3% local contribution obligations;
- B. Provide jurisdictions with maximum flexibility in all sources of funding for first-/last-mile investments by striking the words "non-Metro" from the first sentence in the "Eligible Funds" section, so that Metro competitive grants may also be an eligible fund source to make qualifying investments, which would be consistent with grant-making policy such as Federal and State funds where local match must come from sources other than those Federal and State funds;
- C. Evaluate a way to exclude the costs associated with regionally significant project elements -

File #: 2023-0104, **File Type:** Motion / Motion Response

Agenda Number: 10.1.

such as a new I-105 C Line station on the C Line (Green) or a maintenance and storage facility on the Gold Line Eastside Phase 2 - from the total project's cost's 3% local contribution calculation;

- D. Clarify the local contribution obligation responsibility for any future station, such as a Rio Hondo Confluence Station, that is not part of a project's 30% design but may be added at a later date, to ensure that any 3% obligation for any such station will be borne solely by the jurisdiction (s) in which it is located;
- E. Confirm that qualifying first-/last-mile investments and in-kind contributions shall be considered eligible to credit toward a jurisdiction's 3% local contribution obligation, even if implemented prior to 30% design; and,
- F. Report back to the Board in no more than 120 days on the above requests, including a fact sheet for affected cities.

REVISED MEASURE M GUIDELINES, SECTION VIII. 3% LOCAL CONTRIBUTION TO MAJOR TRANSIT PROJECTS

The following shall replace Section VIII. in its entirety.

INTRODUCTION

The Measure M Ordinance includes a provision for 3% local contribution to major rail transit capital projects. The rationale for the contribution is that local communities with a rail station receive a direct benefit due to the increased access to high-quality transit service that is above and beyond the project's benefit to the County as a whole. Countywide, the 3% local funding contribution represents more than \$1 billion in funding to support the project delivery identified in the Expenditure Plan. The 3% local funding contribution is a critical element of a full funding plan for these rail transit projects. The Ordinance includes provisions that allow development of a mutual agreement between a jurisdiction and Metro, and a default payment mechanism if such an agreement cannot be reached. The agreements shall be in accordance with these guidelines.

PROGRAM METHODOLOGY

The Ordinance calculates the local contribution based upon the percent of project total centerline track miles to be constructed within a local jurisdiction's borders if one or more new stations are to be constructed within that jurisdiction. These guidelines reflect the nexus between mobility benefits provided to a jurisdiction based on the presence of a new station within the jurisdiction. The local contribution will be calculated by distributing 3% of the total project cost, estimated at the conclusion of thirty percent (30%) of final design, to jurisdictions based on centerline track miles per the Ordinance. For projects along a larger transit corridor with more than one operable segment, each operable segment will have its own "total project cost" for purposes of calculating the 3% local contribution for each segment. Jurisdictions will incur a 3% local contribution obligation only for operable segments that include station construction within their borders. Contributions for future segments, future stations on the current segment, other future projects, or project scope identified after 30% design will follow applicable policies to determine any required local contribution for those improvements. Other arrangements agreed upon by every local jurisdiction in a project corridor with a local contribution obligation are also acceptable, provided that the total of all jurisdictions' contributions equals 3% of the estimated total project cost. A list of jurisdictions that may be affected, subject to changes determined by the environmental process, is included as Appendix A.

An agreement approved by both Metro and the governing body of the jurisdiction shall specify the total project cost as determined at the conclusion of thirty percent (30%) of final design, the amount to be paid by the local jurisdiction, and a schedule of payments. Once approved, the amount to be paid by the local jurisdiction shall not be subject to future cost increases.

Eligible Fund Contributions

Eligible fund sources to satisfy 3% local contribution include any funds controlled by the local agency or local agencies (e.g., General Fund, State Gas Tax Subventions, Prop. A, Prop. C and Measure R and Measure M Local Return Funds, Measure M Subregional Program Funds), or any funds awarded from ~~non-Metro~~ competitive grant process funding. Measure M Subregional Program Fund contributions must be accompanied by documented agreement from all jurisdictions that would otherwise be eligible for those sub-regional funds. Contributions, including in-kind and FLM investments, are eligible for credit with Metro approval even if made prior to 30% design. This may increase the funding gap for the transit project.

In-kind contributions eligible to satisfy 3% local contribution include, but are not limited to, project specific right-of-way, waiver of permitting fees, local agency staff time (incurred and forecast) and other subregional investments that support a Metro transit corridor if those costs are specifically included in the project cost and contribution amount by the conclusion of thirty percent (30%) of final design. While the contributing jurisdictions are ultimately responsible for fulfilling the financial obligation per the Measure M Ordinance, they may receive credit for eligible in-kind, FLM, or other contributions made by non-contributing jurisdictions. Note that this may increase the funding gap for the transit project. Metro will not be responsible for implementing any part of interjurisdictional agreements that facilitate such credit.

In-kind contributions consistent with this section will not be considered “betterments” for the purposes of these Guidelines and are eligible to satisfy local contribution obligations in lieu of Metro withholding up to 15 years of Measure M Local Return.

Betterments

Betterments are defined consistent with existing policy adopted by the Metro Board on Supplemental Modifications to Transit Projects (October 2013). A “betterment” is defined “as an upgrade of an existing city or utility’s facility or the property of a Third Party, be it a public or private entity, that will

upgrade the service capacity, capability, appearance, efficiency or function of such a facility or property of a third party.” Once the 30% design project scope and cost have been determined as the basis of the 3% contribution calculation, subsequent betterments cannot be included in that calculation, nor counted toward a jurisdiction’s eligible contribution. However, they may be included in the project scope if carried at the jurisdiction’s expense.

Active Transportation and First/Last Mile Investments

These guidelines reflect provisions adopted by the Board that allow and incentivize local jurisdictions, through an agreement with Metro, to meet all or a portion of their 3% local contribution obligation through first/last mile (FLM) investments. All local FLM improvements must be consistent with station area plans that will be developed and adopted by Metro in coordination with the affected jurisdiction(s). The criteria for local FLM investments for FLM contributions are described in full in the First/Last Mile Guidelines adopted by the Metro Board of Directors on May 27, 2021 (File #2020-0365), specifically to carry out integration of FLM within transit capital projects.

FLM improvements consistent with this section will not be considered “betterments” for the purposes of these Guidelines and are eligible to satisfy local contribution obligations in lieu of Metro withholding up to 15 years of Measure M Local Return.

Local Contribution Limits

The 3% local contribution will only be calculated against the overall project scope and cost determined at the conclusion of thirty percent (30%) of final design and will not include costs for FLM improvements delivered by entities other than Metro. Local agencies cannot count other transportation investments that are not included in the project scope and cost estimate after the conclusion of thirty percent (30%) of final design. Metro staff will provide written notice to the affected jurisdiction(s) and a report to the Metro Board after the completion of thirty percent (30%) of final design.

Contributions for calculations assigned to the County of Los Angeles are to be determined by the County.

Opt-Out Option

Metro will withhold up to 15 years of Measure M Local Return Funds from local agencies that fail to reach a timely agreement with Metro on their 3% contribution prior to the award of any contract authorizing construction of the project within the borders of that jurisdiction. Local return funds from

Proposition A, Proposition C, and Measure R are not subject to withholding. In some cases, principally in smaller cities, the default withholding of 15 years of local return from Measure M Local Return Funds will be less than a full 3% contribution. In these cases, Metro may accept either amount as the 3% contribution, and may execute a corresponding agreement with the jurisdiction. The cities that fulfill the 3% contribution requirement through the Local Return withholding mechanism, including offsets for approved FLM improvements and in-kind contributions, will suffer no further financial impact.

AUDIT REQUIREMENTS

Use of Measure M funds will be subject to audit and oversight, and all other applicable state and local laws.

REPORTING REQUIREMENTS

Metro will provide annual reports to the Measure M Independent Taxpayer Oversight Committee describing how uses of the Measure M Funds are contributing to accomplishing the program objectives.

REVISIONS TO PROGRAM GUIDELINES

These program guidelines may be revised by the Metro Board of Directors.

Metro



Board Report

File #: 2022-0258, **File Type:** Motion / Motion Response

Agenda Number: 35.

**CONSTRUCTION COMMITTEE
APRIL 21, 2022**

Motion by:

DIRECTORS HAHN, GARCETTI, BUTTS, AND DUTRA

3% Contribution Motion

The Measure M ordinance requires local jurisdictions to pay three percent (3%) of the total project cost of a major Measure M rail project. According to Section 7.f of the Measure M ordinance, each jurisdiction's obligation is calculated "based upon the percent of project total centerline track miles to be constructed within that jurisdiction's borders if one or more stations are to be constructed within the borders of said jurisdiction." This requirement is generally referred to as the "3% Contribution."

Clarifications are necessary to ensure that local jurisdictions fully understand their 3% Contribution calculation and that Metro fully incentivizes local jurisdictions to make First-Last Mile improvements that will benefit Metro projects and increase transit ridership, consistent with Board policy.

First, the Measure M Guidelines (Board File 2017-0280) differ from the Measure M ordinance on how Metro calculates the 3% Contribution. While the Measure M ordinance applies the 3% Contribution only to local jurisdictions where a new station is to be constructed, the Measure M Guidelines extend this obligation to all local jurisdictions within a half-mile of a new station. To ensure clarity, Metro should revise the Measure M Guidelines to be consistent with the Measure M ordinance.

Additionally, not all jurisdictions are presently incentivized to make First-Last Mile investments. Existing Metro Board policy (Board Files 2016-0451 and 2020-0365) seeks to incentivize local jurisdictions to make First-Last Mile investments by allowing the value of those investments to count toward all of a jurisdiction's 3% Contribution obligation. However, as detailed below, this incentive is currently not available to all jurisdictions.

In cases where a jurisdiction's 3% Contribution exceeds 15 years of their Measure M Local Return, per the Measure M ordinance Metro may withhold their Measure M Local Return for up to 15 years. To preserve these jurisdictions' incentive to deliver First-Last Mile investments, Metro should allow withheld funds to satisfy the 3% contribution via an agreement with the jurisdiction such that the value of First-Last Mile investments delivered by that jurisdiction count against their up-to 15-year Measure M Local Return withholding, so long as those investments are consistent with established Metro procedures (such as the First-Last Mile Guidelines). This will ensure First-Last Mile incentives are fully available to all jurisdictions.

File #: 2022-0258, **File Type:** Motion / Motion Response

Agenda Number: 35.

Further, to ensure that local jurisdictions are not over-charged for their 3% Contribution, the Board should clarify that a transit corridor's "total project cost" (calculated at 30% design to determine a jurisdiction's 3% Contribution) should refer only to the transit project and related elements delivered by Metro itself. First-Last Mile improvements delivered by local jurisdictions should not be included in the "total project cost" from which Metro calculates a jurisdiction's 3% Contribution.

Finally, the Measure M Guidelines provide that a transit corridor's total 3% Contribution may be met through in-kind contributions or "other arrangements agreed upon by every local jurisdiction in a project corridor." The Board should reaffirm that subregional investments that support a Metro transit corridor should be eligible to count toward a project's total 3% Contribution under this provision.

Following determination of the "total project cost" at 30% design, the manner in which a local jurisdiction shall fulfill its 3% obligation should be generally understood by the time a Metro project reaches construction contract award, pending final agreement between Metro and that jurisdiction.

SUBJECT: 3% CONTRIBUTION MOTION

RECOMMENDATION

APPROVE Motion by Directors Hahn, Garcetti, Butts, and Dutra that the Board direct the CEO to update the Measure M Guidelines and First-Last Mile Guidelines in accordance with the following:

- A. Revise the Measure M Guidelines 3% Contribution calculation to be consistent with the Measure M ordinance;
- B. In cases where Metro withholds 15 years of Measure M Local Return, clarify that Metro will allow withheld funds to satisfy the 3% contribution via an agreement with the jurisdiction, that jurisdictions may spend withheld funds on First-Last Mile investments, and that those expenses shall be eligible to credit toward a jurisdiction's 15-year total Measure M Local Return obligation in accordance with established Metro procedures, such as the First-Last Mile Guidelines and Measure M Guidelines;
- C. Confirm that the cost of First-Last Mile improvements delivered by local jurisdictions shall not be included in the "total project cost" from which Metro calculates the 3% Contribution;
- D. Consistent with precedent from the Purple Line Extension, confirm that jurisdictions along segments of a larger transit corridor will incur a 3% Contribution obligation only for project segments that include station construction within their jurisdiction; and,
- E. Reaffirm that in-kind contributions and subregional investments that support a Metro transit corridor may count toward a project's total 3% Contribution under existing provisions of the Measure M Guidelines.

WE FURTHER MOVE that the Board direct the CEO to report back on all the above to the Construction Committee in June 2022.

Metro 3% Local Contribution

Metro Project Financing

Metro projects require significant financial support, and a key resource for new rail corridors relies on contributions from jurisdictions along the projects. **Per the Measure M Ordinance, 3% of the cost of each new rail project shall be paid by jurisdictions based upon the percent of track miles within a jurisdiction's borders, if a station is to be constructed within that jurisdiction.** This is known as the 3% local contribution.

In the early stages of project development Metro will conduct outreach to jurisdictions that may have a 3% local contribution obligation. Once a project reaches the 30% design level, Metro will calculate the local contribution and initiate negotiations with each applicable jurisdiction toward a 3% local contribution agreement. This agreement will establish the local contribution amount, specific financial and in-kind sources the jurisdiction intends to use, and timeframes necessary to support Metro project development.

Contact Information

MMguidelines@metro.net

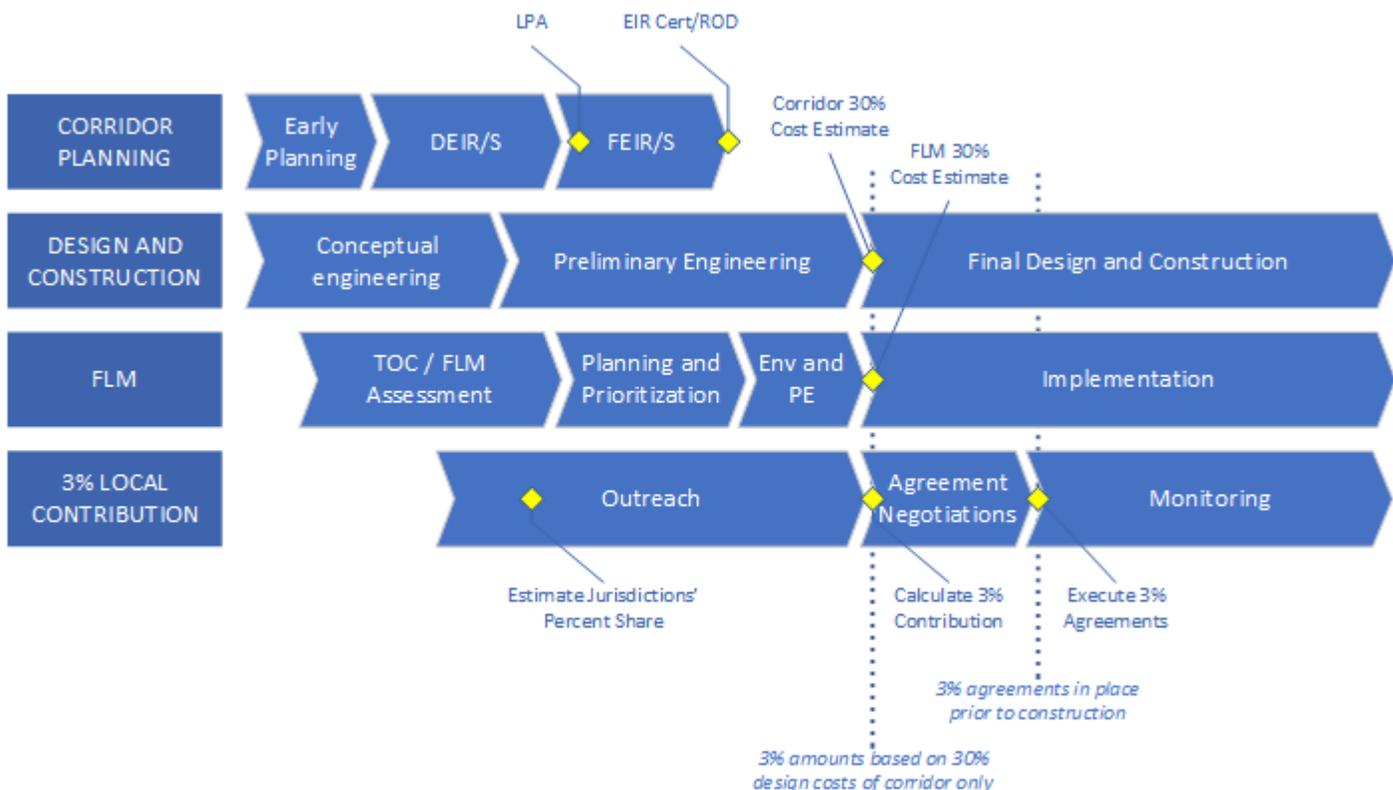
Resources

Available on the Metro website:

- Measure M Guidelines
- First-Last Mile Guidelines
- Metro: How We Plan and Build
- Metro: Projects

Technical Assistance available upon request

Integrating the 3% Local Contribution and Project Development*



*The diagram shows a typical design-build process. Other project delivery methods may realign some activities.

How is it calculated? Metro will first establish the cost basis for the local contribution by estimating the transit project cost based on 30% design. 3% of that cost basis will be the overall local contribution. Metro will then identify project segments that cross through jurisdictions where no station is to be constructed and subtract these from the overall project length. The overall 3% local contribution will then be allocated to jurisdictions where stations are to be constructed based upon the percent of adjusted centerline track miles within the jurisdiction's borders

Note that the 3% contribution only applies to the operable project segment and only for project scope identified by 30% design. Future project phases or project elements added after 30% design will not affect the contribution owed for the current segment.

If a jurisdiction is unable to satisfy the full 3% contribution, Metro may withhold Measure M local return funds until the obligation is met, or up to 15 years.

What sources are eligible to pay it? Jurisdictions may use any locally controlled funds. They may also receive credit for the value of in-kind contributions to the project (e.g. right-of-way) if those costs are specifically included in the project cost and contribution amount by 30% design. Additionally, jurisdictions may receive credit for qualifying First-Last Mile (FLM) improvements contained in a Metro Board adopted FLM Plan.

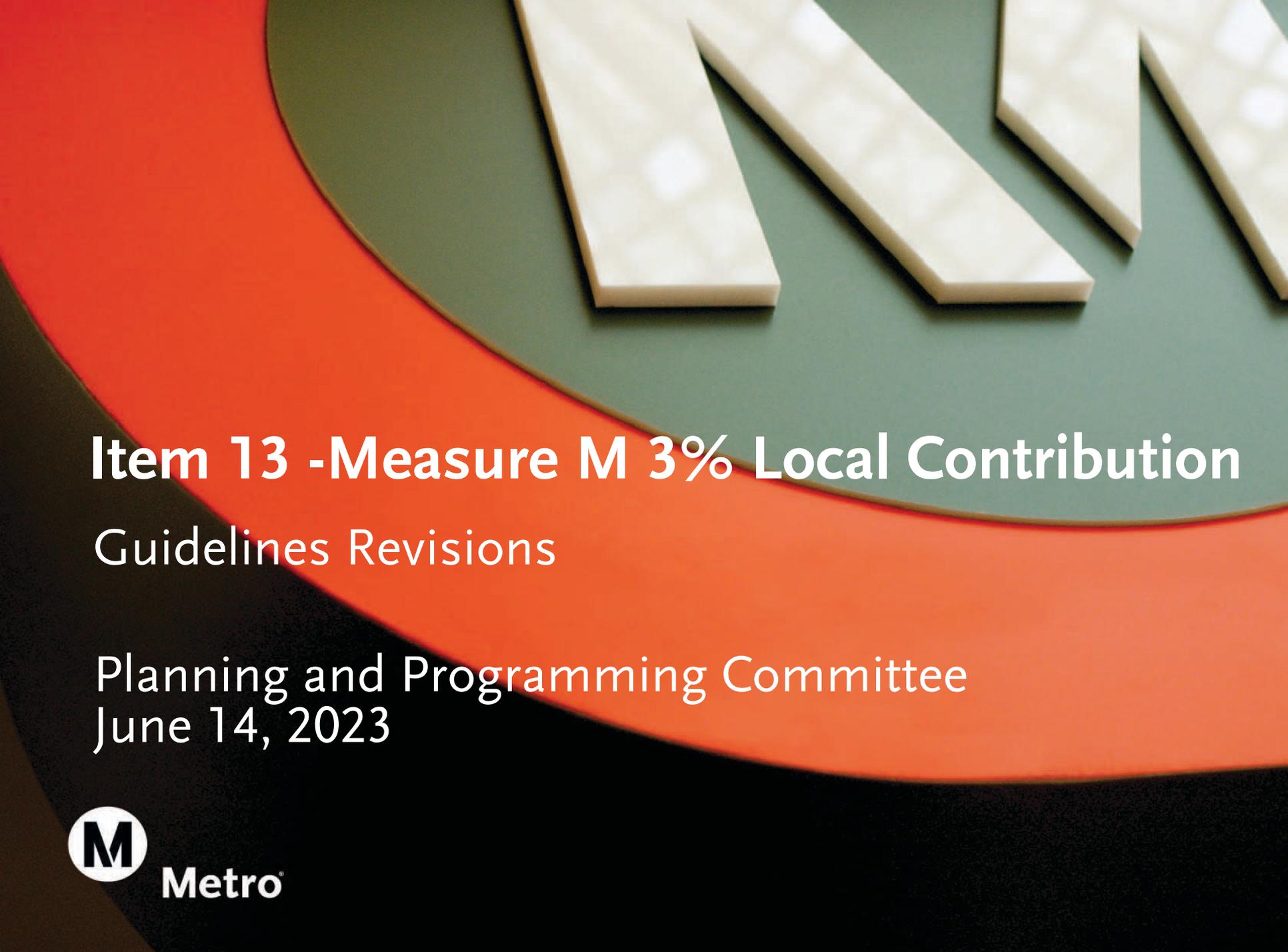
Jurisdictions owing a 3% contribution may receive credit for eligible improvements or actions taken by neighboring non-contributing jurisdictions. This would allow, for example, a jurisdiction to receive credit for qualifying FLM improvements made by another jurisdiction along a corridor. Note that this may increase the funding gap for the transit project.

In cases where Metro is withholding local return funds, a jurisdiction may still receive credit for qualifying FLM and in-kind improvements.

When is the repayment deadline? While the 3% contribution agreement will stipulate specific timeframes on a project-by-project basis, generally a jurisdiction should satisfy all financial obligations by the midpoint project construction. In-kind contributions and FLM improvements must generally be complete by the time the project is open for revenue service.

In cases where Metro is withholding local return funds, Metro will begin withholding approximately the same year as construction is authorized in the applicable jurisdiction.

What is the process for receiving credit for in-kind contributions? As project design progresses, jurisdictions should identify opportunities to contribute to elements of the project scope, the value of which can be credited to the jurisdiction. In most cases Metro will consider in-kind contribution proposals (e.g. right-of-way, city-led infrastructure improvements) during the preliminary engineering phase. Regardless of when the in-kind proposal is made, it must be for a project element that is included in the scope at 30% design per the Measure M Guidelines.

The background features a large, stylized letter 'M' composed of several white, 3D rectangular blocks. The 'M' is set against a dark green circular backdrop. This green circle is partially overlaid by a large, curved orange shape that sweeps across the middle of the frame. The bottom portion of the image is a solid black area.

Item 13 - Measure M 3% Local Contribution

Guidelines Revisions

Planning and Programming Committee
June 14, 2023



Metro

Measure M Guidelines Revisions

Previous Revisions

- Initiated with Motion 35 in April 2022
- Public review and comment Fall 2022
- Board adopted revisions in February 2023
 - Revise calculation method (total project cost excludes FLM, based on track mileage only);
 - Provided additional flexibility for FLM and in-kind credit;
 - Clarifications

Measure M Guidelines Revisions

Current Revisions

- Initiated with Motion 10.1 in February 2023
 - Board requested additional edits, and analysis of excluding “project elements of regional significance”
- Directives A, D, and E clarify existing flexibility
- Directive B allows improvements funded with Metro competitive grants to be an eligible contribution source
- Financial impacts associated with A and E

Measure M Guidelines Revisions

Analysis of Excluding Regionally Significant Project Elements

- New definition
- E.g. I-105 C Line station; MSF on the GLE Phase 2; AMC
- Potential loss in local contribution ranging from \$44.3M to \$79.5M
- Metro would need to fill the resulting funding gap, which could also cause delays in project delivery

Measure M Guidelines Revisions

Next Steps

- Release draft revisions for public review following Board authorization
- Respond to comments, incorporate in final revisions for Board approval in September
- After September: outreach and workshops with project corridor cities